THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND BURNOUT OF POLICE CONSTABLE OFFICERS OF THE SAPS IN THE WESTERN CAPE

EDWINA JUDITH DETTE

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Faculty of Economic and Management Science,

University of the Western Cape

Supervisor: Dr. P. Nel

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Abstract

This study was undertaken to determine the relationship between the emotional intelligence and burnout levels of police constables of the South African Police Service (SAPS) in the Western Cape. The field work of constables includes situations in which police officers need to make quick decisions involving life and death. Constables regularly have to deal with and are exposed to dangerous and violent situations (Plani, Bowley & Goosen, 2003). There are certain skills which a police officer needs to demonstrate. These skills include the ability to make decisions promptly and accurately; the ability to favourably interact with the community and to observe, retain and recall detailed information. However, these skills are affected when the police officer experiences feelings of stress and burnout (Goodman, 1990). One factor that might help police officers with these skills is emotional intelligence (Levert, Lucas & Ortlepp, 2000; Mayer & Salovey, 1997). Given the nature of policing, the potential benefit to the SAPS employing a police officer with high emotional intelligence to deal with burnout, would be the desired attribute.

A simple random sample of N=108 police constables participated in this study. The Emotional Quotient-Inventory (EQ-i) and the Burnout Measure (BM) were administered. Data were analysed using the Statistical Package for Social Science (SPSS) version 15.0. Cronbach reliability estimates for the EQ-i ranged from .87 to .90 and for the BM was .93. Positive and negative relationships were found between emotional intelligence dimensions: self-awareness (r=.-393, p>0.01), self-regulation (r=.-485, p>0.01), motivation (r=.-442, p>0.01), empathy (r=.-394, p>0.01) and social skills (r=.-383, p>0.01), [N=108] and police officers' total burnout levels. The results indicated that the more self-aware, self-regulated, motivated, empathetic and socially inclined police officers were, the less likely police officers were to experience burnout. The results also indicated that the less self-aware, self-regulated, motivated, empathetic and socially inclined police officers were, they would be more likely to experience burnout. The exploratory factor analysis yielded a two factor structure for the individual on the emotional intelligence dimensions namely, self-awareness and empathy. A single factor

was found for the manager consisting of the original five dimensions of the EQ-i. There was a moderate to strong negative correlation between total self-awareness (r=.-206), self-regulation (r=.-263), motivation (r=.-299), empathy (r=.-268) and social skills (r=.-311), [N=108, p>0.01] and police officers' total burnout levels. This finding suggests that the more police officers viewed their manager to be self-aware, self-regulated, motivated, empathetic and socially inclined, the less likely they were to experience burn-out. The results of the multiple regression analysis show that police officers' self-regulation appeared to be the only significant reliable predictor of burnout. The findings of this study provide an important contribution to expanding the body of literature and knowledge concerned with the emotionally intelligent constable which influences their burnout levels.

Key words

Emotional Intelligence

"The capacity for organising our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationship" (Goleman, 1998, p.317).

Burnout

"A state of physical, emotional and mental exhaustion caused by long-term involvement in situation that are emotionally demanding" (Pines & Aronson, 1988, p.9).

Police Officer

A police officer can be considered as the front-line employee who performs and are exposed to hands-on police work.

The Burnout Measure (BM)

The Burnout Measure was used in this study to assess the burnout levels of police officers.

The Emotional Quotient –Inventory (EQ-i)

The Emotional Intelligence Quotient Inventory (EQ-i) was used to assess emotional intelligence levels of police officers.

Declaration Statement **Student Number: 2207645**

I declare that the research conducted on Emotional Intelligence and Burnout within the SAPS, the literature reviews consulted, and questionnaires used are my own work, that it has not been submitted for any degree or examination at any other university and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Signature: _____ Date: _____

Edwina Judith Dette November 2008

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Content **Page**

Appendix A

List of tables

List of figures

Chapter 1

Introduction

1.1 Background to the study

In the past, consequences associated with burnout were not seen as a workplace problem. Law enforcement personnel regularly deal with stressful and emotional charged issues as they perform their duties of their respective offices. How they respond to those circumstances can range from heroic to repulsive. It is the contention of this researcher that emotionally intelligent law enforcement supervisors play a significant role in leading by example and thereby impacting how their subordinate patrol officers will respond in stressful circumstances. However, there are perhaps few occupations in our nation that can bring about a dissonance of emotional responses more quickly than law enforcement personnel. Emotional intelligence is a concept with great potential for application in the law enforcement arena. Furthermore, the employees' ability to manage their emotions is questioned as it could have potential impact on their work and personal relationships, which in turn could affect the quality of work delivered and the profitability of the organisation. Research suggests that by identifying the emotional abilities employees would be enabled to cope with the demands of the world of work specifically referenced to police work. Slaski and Cartwright (2003) argue that emotional intelligence could serve as a moderator in the stress process that precedes burnout. Furthermore, individuals with high emotional intelligence will perceive work experiences to be less stressful and thus experiences less health consequences. Thus, the aim of this study was to determine whether experiencing burnout could be positively related to various dimensions of emotional intelligence. In light of this aim, the following section will briefly look at the work of a police officer.

1.2 World of work of a Police Officer

For many service occupations, emotion is an integral part of the task. Giardini and Frese (2006) argue that emotion work is a source of work stress and that it can have detrimental effects on service employees' psychological and physiological systems. In comparison with other

occupations, police work has been regarded as a high stressful occupation (Mostert & Joubert, 2005). This occupation is also true for police officers in South Africa.

The SAPS has also undergone tremendous social and transformational change since 1994. The face of the SAPS is changing by moving from a military-style structure to community-style work (Oliver, 2006). The rank structure has changed from military to police-oriented terminology. Additionally, an affirmative action policy was also implemented. Because of the transformation and stressful aspects of policing, police officers may experience a variety of symptoms and reactions. These include absenteeism, low morale, emotional burnout, frustration, depression, anger, ulcers and headaches (Burke, 1983).

Police work has been identified as an occupational stress which may lead to burnout and has become an occupation for concern. Pestonjee (1992) indicates that police work is generally regarded as highly stressful. A study comparing the degree of police stress between South African police officers and police officers in the United States of America (USA), showed the South African participants to have a greater degree of stress than their USA counterparts (Gulle, Tredoux & Foster 1998). This finding could be attributed to South Africa's socio-economic and political turmoil of the past thirty years which is characterised by high levels of crime and violence (Nel & Burgers, 1995).

South Africa is also known to be a large, demographically diverse and multi-cultural society. The transition of South Africa from apartheid to democracy impacts directly on policing in the country (Buntman & Snyman, 2003). According to Gulle et. al., (1998) the *way in which* the South African police organisation functions, would create additional stress to the inherent pressure already existing as a result of the nature of police work. Burnout may result as a final stage of breakdown due to prolonged stress (Farber, 1983 cited Levert et. al., 2000). These concerns play a particular role in the work of police officers as they are more likely to experience burnout due to the nature of their work.

1.2.1 The SAPS police officer

The police officer can be considered front-line and are exposed to hands-on police work. They are more likely to suffer damaging effects of burnout. The field work of officers includes situations in which police officers need to make quick decisions involving life or death. Since South Africa is characterised by high levels of violence, officers regularly have to deal with and are exposed to dangerous and violent situations (Plani, Bowley & Goosen, 2003). The skills that a police officer need to demonstrate includes the ability to make decisions promptly and accurately, the ability to interact favourably with the community and to observe, retain and recall detailed information. However, these skills are affected when the officer experiences feelings of stress and burnout (Goodman, 1990). One factor which may assist officers with these skills is emotional intelligence (Levert, et. al., 2000; Mayer & Salovey, 1997). Research indicates the benefits of being emotionally intelligent.

Since police work is known to be stressful, recent articles have questioned whether enough is being done for officers' well-being as some are committing suicide and suffer from post traumatic stress (Peters, 2007). Psychologists believe that in comparison with other occupations, law enforcement is an emotionally and dangerous career. Police officers have to build a measure of detachment almost "emotional death" in order to do their duty. There is also a myth that police officers are tough and can handle the effects of trauma and violence (Peters, 2007). Yutur (2006) stated that policemen who show emotion are seen as a weakness. Cowboys don't cry and are expected to be superhuman policemen. But research has shown that with overwhelming stress an individual's ability to cope declines sharply (Peters, 2007). This may lead to burnout and other detrimental effects. These are issues of concern which can no longer be ignored or viewed as something isolated.

Thus, the premise of this research is that police officers are faced with a variety of stressors which can be associated with symptoms and reactions. Unrelieved stress could result in burnout and could limit the competence, vitality and commitment of police officers. One variable that has been identified in stress and burnout research that may buffer against these effects are an employees' ability to deal effectively with affective information often referred to as emotional

intelligence (Levert et. al., 2000). The objective of this study is therefore to investigate the relationship between emotional intelligence and burnout of police officers in the Western Cape.

Farmer (2004) indicates that emotional intelligence may present potential dimensions that could aid or buffer the effects of experiencing burnout, the following section highlights the linkage between burnout and emotional intelligence.

1.3 Link between Burnout and Emotional Intelligence

Thomas (1989) states that the result of burnout is a lack of emotional reserve that is required to deal with emotionally charged situations. Bar-On (1997a) identified a stress resistance (SR) component of emotional intelligence that would have a direct bearing on law enforcement supervisors' and officers' abilities to function effectively and carry out the duties of their respective positions. Farmer (2004) suggests if emotional intelligence has a negative relationship with burnout, it is essential for individuals to develop or enhance their emotional intelligence, as high emotional intelligence would be regarded as a resistance to burnout. This would also mean that individuals with high emotional intelligence, having the ability to perceive, use, understand and manage emotions would be less likely to experience burnout. Thus, this may be regarded as the desired attribute for police officers to deal with their stressful work.

1.4 Defining key variables

For the purposes of this study, the following definitions will apply:

1.4.1 Emotional Intelligence

"… the capacity for organising our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationship" (Goleman, 1998, p.317).

1.4.2 Burnout

"A state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are emotionally demanding" (Pines & Aronson, 1988, p.9).

1.4.3 Officer

An officer can be considered as the front-line employee who performs and is exposed to hands-on police work.

The above section discussed and highlighted the potential results linking the two constructs, burnout and emotional intelligence and relating it to the SAPS environment. Based on this, the following section aims to provide an overview of the situation and problems experienced within law enforcement and specific reference is made to the SAPS.

1.5 Problem Statement

South Africa has undergone socio-economic and political turmoil over the past three decades that is characterised by high levels of crime and violence (Paton and Violanti, 1999). This contributes to police officers experiencing and being exposed to a variety of duty related stressors such as witnessing a fellow officer killed or killing someone in the line of duty, recovering bodies from a vehicle accident, witnessing domestic violence and responding to cases involving child battery (Gulle et. al., 1998). Police personnel may also be vulnerable to the attack from communities (Jones & Kagee, 2005). Other examples are the physical assault of a police officer, the violent death or suicide of an officer who is a close friend, or a response to a scene involving police officers showing high levels of work stress and burnout (Mostert & Joubert, 2005).These stressful aspects of policing are being experienced by the police officers of the South African Police Service (SAPS). These aspects have been associated with issues of occupational stress and burnout and because of this have received increased researched attention within the SAPS.

Considering the prior discussions and today's fast moving and competitive environment, the responsibility of patrol supervisors or sergeants no longer only include or require them to perform traditional functions of managing patrol activities, collecting reports, maintaining discipline and compliance to rules and regulations, and investigating incidences which involve their subordinate patrol officers (Bennet & Hess, 2004). They are now faced with meeting more challenges with fewer resources. This challenge is attributed to the constantly changing nature and structure of organisations. As a result they are expected, as well as those in leadership positions, to function competently and often without the appropriate training, resources and skills being put in place. These fast changes, the constant exposure to work pressure and the demand to adapt with fewer resources are often associated with occurrences where employees are more likely to experience stress and, if left untreated, employees would experience burnout (Thompson, 2002). This is also true for the SAPS. It is therefore not surprising that occupational stress and burnout have received increased attention.

As a result, emotional intelligence may possibly become an important factor for use in evaluating law enforcement officers. Bar-On (1997a) identified a stress resistance (SR) component of emotional intelligence that would have a direct bearing on law enforcement supervisors' and officers' abilities to function effectively and carry out the duties of their respective positions. On the contrary research addressing the role of emotional intelligence in law enforcement studies is limited in South Africa. Thus, as a result due to the lack of empirical studies regarding this subject, researchers and practitioners are limited in their ability to consider the influence of emotional intelligence as a means of assessing performance, hiring, promoting and training law enforcement personnel. Furthermore, the results of this research may identify the need to identify emotional intelligence competencies in prospective candidates for employment in police work. This should be considered by police administration during the hiring process. However, due to the lack of inquiry and published literature regarding the relationship between a law enforcement officer's emotional intelligence and burnout levels, it appears that this research could be directed towards providing law enforcement, specifically the SAPS, an insight into the levels of emotional intelligence and burnout by using certain tools that would assist them in screening for hiring the best candidates. This may also include enhancing their officers' abilities to function more effectively within their respective communities while performing their police functions.

In addition, an understanding of how emotional intelligence dimensions impacts on their burnout levels can be used to manage burnout experienced by the individual. This information might assist the SAPS in highlighting new areas of organisational development, training interventions and new recruitment processes in combating burnout for police officers. Hence, the results of this study can be used to develop new and change interventions and initiatives to deal with burnout in the SAPS. Therefore, the question that arises is:

Do police officers have the skills needed to develop and maintain their own emotional balance to deal with their stressful occupation?

However, there are no studies that empirically connect burnout and emotional intelligence to the police environment. Thus, to bridge this gap, one of the objectives of this research is to relate both types of constructs, burnout and emotional intelligence, to the police officers of the SAPS. It is therefore important to investigate the relationship between burnout and emotional intelligence levels of the SAPS officers. This also serves as the purpose of the study.

1.6 Purpose of the study

The purpose of the study is therefore to investigate the relationship between emotional intelligence and burnout levels of officers. In order to investigate this relationship the following stated objectives and hypothesis will help to determine the outcome.

1.6.1 Key research question

The research question which will drive this study is as follows:
Is there a relationship between the emotional intelligence and burnout levels of officers?

1.6.2 Objectives of the study

The main objective of this research was to determine the relationship between emotional

intelligence and burnout of the SAPS police officers in the Western Cape. To achieve the main objective, the secondary objectives are as follows:

1.6.2.1 Empirical (Secondary) objectives

- To determine the emotional intelligence levels, and
- The burnout levels of police officers.
- To determine whether high EI levels can be associated with low burnout levels
- To formulate possible recommendations based on the literature, the empirical findings of this research regarding future research on emotional intelligence and burnout of the SAPS police officers.

To achieve these objectives, the following central hypotheses for this research were generated, and are as follows:

1.6.2.2 The central hypotheses for this research are:

H1: There is a statistical significant correlation between emotional intelligence and burnout levels of police officers.

H2: There is a statistical significant difference between a police officer with high and low emotional intelligence levels in terms of their burnout.

H3: There is a statistical significant correlation between emotional intelligence of the police officer and burnout.

H4: There is a statistical significant correlation between the emotional intelligence of the manager and burnout.

1.7Assumptions

The following assumptions are made regarding this study:

- All officers participating will complete and sign the informed consent form.
- Officers participating in this study will honestly respond to all questions posed in The Biographical Questionnaire, The Emotional Quotient Inventory (EQ-i) (Rahim & Minors, 2003) and the Burnout Measure (BM) (Pines, Aronson & Kafry, 1981) measuring instrument.

1.8 Significance of the study

Law enforcement organisations are continually challenged to hire the best suited and qualified applicants for the job of policing. In today's society, failure to adequately train and supervise officers can lead to frequent civil actions conducted against law enforcement organisations such as the SAPS (Hess & Wrobleski, 1997). Given the gravity of these actions, law enforcement organisations would be well advised to look for tools and resources, which could assist in hiring, training and supervising suitable candidates as potential police officers. The results of this study may potentially identify a measure that could be utilised within screening processes. Additionally, the results could also demonstrate that providing emotional intelligence training for police officers would increase their emotional intelligence levels. Furthermore, the results of this study would also enrich the body of literature and research involved in the fields of law enforcement, education and organisational/ industrial psychology. The findings will be available in the support of future research in these fields, with particular emphasis on the value of emotional intelligence and burnout to officers or other law enforcement employees.

1.8.1 Potential benefits of this study for the SAPS are:

- Increased quality of life, increased profitability, effective teams, successful leadership and enhanced psychological well-being (Johnson & Indvik, 1999).
- Improved service delivery
- If recruitment systems were more sophisticated, those prone to low emotional intelligence

levels who have the inability to cope with emotions particularly stressful police work and who are more likely to experience burnout, may be screened at an early stage. Violanti (1983) indicates that stress increases substantially during the first two career stages of police service namely, the alarm stage (0-5 yrs) and the disenchantment stage (6-13yrs). These stages are ideally to allow development interventions that are based on developing emotional intelligence abilities or competencies. Thus, research into the field of emotional intelligence and burnout is worthwhile pursuing.

1.9 Mini-Thesis Summary

Chapter 2 and 3: Literature Reviews of Burnout and Emotional Intelligence

Chapter two and chapter three review the literature on burnout and emotional intelligence.

Chapter 4: Research Methodology

Chapter four presents a model or framework that stems from the burnout and emotional intelligence literatures reviewed. All methodological methods and processes followed will also be explored and discussed.

Chapter 5: Presentation of Results

Chapter five present and discusses the results of the study using descriptive statistics

Chapter 6: Limitations and Conclusions

Chapter six draws conclusions and highlights the limitations of this study. In addition, recommendations will also be proposed.

1.10 Summary

The purpose of this chapter was to provide an overview of this study. The constructs of emotional intelligence and burnout and, the environment in which the study will focus, the SAPS were introduced. Specific focus was directed at establishing the current burnout and emotional intelligence levels of police officers in the SAPS. Another key area is to review the literature on

emotional intelligence and burnout and a model or a framework will be presented. The following chapters will provide a detailed literature overview of these two constructs.

Chapter 2

Conceptualising Burnout

2.1 Introduction

The purpose of this chapter is to provide a detailed overview concerning the literature with regard to burnout. Various conceptualisations, theoretical models, and problems relating to the construct of burnout are discussed. Additionally,, various research studies and interventions are presented.

For the past decade, burnout has been recognised as an individual response to chronic occupational stress (Peiro, Gonzales-Roma & Manas, 2001) and an occupational hazard for various people-oriented professions (Maslach, 1998). These professions include human services, education and health care (Vandenberge & Huberman, 1999), military personnel (Leiter, Clark & Durup, 1994) and managerial personnel (Perlman & Hartman, 1982). Since then the scope of burnout research has been controversial in terms of the conceptual and operational definitions of the construct (Hobfoll & Shirom, 2000) because the work with regard to burnout has entered a more focused constructive and empirical period. This resulted in an increased number of research raising different viewpoints.

2. 2 Historical Development of Burnout

Freudenberger (1974) first introduced the term burnout, which was based on his work in free clinics and therapeutic drug communities in the 1960's and early 1970's. He coined the term burnout (Freudenberger, 1974, 1975; Maslach, 1976). Since then, burnout was introduced into the public domain when Maslach (1982a) presented her findings on professional burnout. Subsequently, the topic received regular attention at conferences and by researchers (Cipriano, 2002). Skovolt (2001) agrees that during the 1980's the term *burnout* became a popular way to consider burnout at work. People believed that burnout had face validity. As a result, this led to multiple requests for workshops and presentations (Cherniss, 1980a).

Burnout attracted widespread attention among researchers and the public (Moore, 2000).There are several possible reasons namely,

1) The new concept was relatively neutral with respect to prospective respondents' self-esteem or self-concept;
2) The new concept did not carry a stigmatising label, nor did it necessarily entail self-blame and
3) Its utility in describing a new unlabelled phenomenon.

This circle was broken due to the development and widespread acceptance of the two most popularised burnout instruments, The Maslach Burnout Inventory (MBI) (Maslach and Jackson, 1981) and the Burnout Measure (BM) (Pines, Aronson and Kafry, 1981) which fostered systematic research concerning burnout. This acceptance was mainly due to the large number of research initiatives that cleared the conceptualization of burnout. This research provided an initial description of the burnout phenomenon, gave it a name, and showed that it was not uncommon to only occur in the helping professions but could be experienced by anyone (Couper, 2005a). Schaufeli, Maslach and Marek (1993, p. 4) agree,

> Many books and articles were also written about burnout in which authors and researchers outlined their working models of the phenomenon, proposed various interventions and ideas, and presented various corroborative evidence such as survey and questionnaire data, interview responses, clinical cases studies.

Standardised burnout measures were developed, providing researchers with more precise definitions and methodological tools for studying this phenomenon. Some have suggested that burnout can be regarded as a cause and an effect of impairment and also as a form of impairment itself (Skorupa & Agresti, 1993). Although burnout was initially associated with individuals in the care-giving or helping professions, many suggested that burnout could occur in other professions (Leiter & Schaufeli, 1996). Others have suggested that the prevention of burnout should begin during professional training (Skovolt, 2001). There is also a heightened need for an increased understanding of the various factors that promote argument and moderate the

consequences of burnout. Hence, since its inception the work focussing on burnout has entered a more focused constructive and empirical period.

2. 3 Defining Burnout

Maslach and Schaufeli (1993) reviewed various burnout definitions and found similar descriptors and elements such as: symptoms of fatigue such as mental or emotional exhaustion, tiredness and depression. Various distress symptoms and burnout symptoms are work-related. The symptoms manifest in people who did not suffer from psychopathology before, and decreased effectiveness and impaired work performance (Schaufeli, Bakker, Hoogduin, Schaap & Kadler, 2001). Skovolt (2001) notes that a common quality among these words point to a profound weariness with the self and are regarded as key components or as the root of burnout. Furthermore, Skovolt (2001) states that burnout must be considered as a multidimensional syndrome. However, two distinct conceptualisations of the construct have been preferred.

The most significant and accepted definition is that of Maslach and Jackson (1981) who developed an instrument that is widely used (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000a). Maslach and Jackson (1981) define burnout as a psychological syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that occurs among individuals who work with people in some capacity. Another burnout measure is the Burnout Measure of Pines, Aronson and Kafry (1981). Pines and Aronson (1988, p.9) define burnout as "a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are emotionally demanding". This definition will also serve the purpose of this study in defining burnout due to the selected burnout measure, namely, the Burnout Measure.

Maslach's measure taps into three dimensions that is, emotional exhaustion, depersonalisation and a lack of personal accomplishment (Maslach, Jackson & Leiter, 1996) that are felt to be stages of the process by which an individual becomes burnt out. Alternatively, burnout may occur in phases where each phase represents a unique set of impairment on the three dimensions: emotional exhaustion, depersonalization and reduced personal accomplishment (Golembiewski, Boudreau, Muzenrider & Luo, 1998). Pines et. al., (1981) measure taps into two core

dimensions: emotional exhaustion and depersonalization which are also measured by Maslach (1982a). The dimensions of burnout are conceptualised differently. In the helping professions, burnout includes dimensions of emotional exhaustion, depersonalization and low personal accomplishment. In occupations other than the helping professions, this includes dimensions such as exhaustion, cynicism and low personal efficacy (Maslach et al, 1996 cited Rothmann, 2003). Nevertheless, Altun (2002) contends that burnout was conceptualised as a psychological state resulting from high periods of stress in a person's professional life. However, due to its use, burnout is often associated with any situation where a person feels stressed or no longer feels the motivation to continue with an activity (Farmer, 2004). Certain models of burnout were created which could be associated with various conceptualisations of the construct.

2. 4 Models of Burnout

Schaufeli and Buunk (2002) suggest that it is highly unlikely that a single universal theory of burnout would be developed and agreed upon. There are different models of burnout which include the Multidimensional Model of Burnout, the Phase Model of Burnout, the Process Model of Burnout and the Conservation of Resources (COR) Theory of Burnout.

2. 4.1 A Multidimensional Model of Burnout: Maslach (1982)

Maslach and Jackson (1986, p.1) define burnout as "a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishments that can occur among individuals who do "people work" of some kind". Researchers acknowledge that employees in any job can develop burnout (Schaufeli & Enzmann, 1998). This definition was developed on the basis of several years of exploratory research which involved conducting interviews, completing surveys and doing field observations of employees in a wide variety of people-oriented professions including employees from health care, social services, mental health, criminal justice and education (Maslach, 1993).

Maslach (1982a, p.3) describes emotional exhaustion as "the *first stage* where stress arises as an outcome from the social interaction between helper and recipient". A person will get overly

involved emotionally, overextend him or herself and feels overwhelmed by the emotional demands imposed by other people. This is known as emotional exhaustion where people feel drained, their emotional resources are depleted and there are no sources of replenishment. An individual's response to this is adopting a self-protective position of detachment as they avoid having to get to know others and becoming emotionally involved (Maslach, 1982b).

Maslach (1982a) maintains that when detachment occurs, the latter signals the *second stage* which is known as depersonalisation. This stage is characterised by adopting a tendency to objectify clients and have negative, cynical attitudes towards clients, co-workers and the organisation. Alternatively, individuals may distance themselves from the workplace, their co-workers and may consider leaving their employment or profession. They are likely to be attendant to have feelings of guilt or distress during this stage. The last stage is reduced personal accomplishment characterised where individuals begin to feel incompetent and inadequate.

In addition Maslach (2003) suggests that the way in which these dimensions will relate to workplace variables such as lack of resources will differ. This also means that the variation in the manifestation of these dimensions will result in different burnout patterns. There are however implications for interventions in terms of proposing this model. A multidimensional model of burnout underscores the variety of psychological reactions to a career that employees can experience. For example, certain career characteristics may influence emotional exhaustion and personal accomplishment. This approach also implies that interventions designed to reduce burnout should be planned and designed to address the specific component of burnout. For example, the burnout intervention should be designed to reduce emotional exhaustion or to prevent depersonalization or how to enhance personal accomplishment (Maslach, 1993). The Phase Models was proposed as a contrast to Maslach's Multidimensional Model of burnout.

2.4.2 Phase Model of Burnout: Golembiewski (1998)

Maslach and Leiter (1997) propose that burnout is a process model where one state leads to the next. However, Golembiewski, Scherb and Boudreau (1993) suggest that burnout occurs in phases with alternate progression of the three stages creating unique and increasingly debilitating

combinations of the dimensions: emotional exhaustion, depersonalisation and reduced personal accomplishment.

Golembiewski, Boudreau, Sun and Luo (1998) conceptualise burnout to occur in eight stages with phase 1 representing the least advanced stage of burnout having low scores on all three burnout dimensions. Phase II through to Phase VII is characterised by various high/low combinations on the three dimensions: emotional exhaustion, detachment and reduced personal accomplishment. Notably, during these stages emotional exhaustion is seen as the contributing factor to burnout and is regarded as the key dimension of burnout (Cordes & Dougherty, 1993).

Phase II is characterised where individuals see themselves as living beings, are doing well in their occupations, are socially worthwhile and are seen as having a surplus of emotional resources for coping with more stressors than what they are experiencing (Golembiewski et. al.,1998). Phase VIII is characterised as the advanced stage of burnout where individuals have high scores on all three burnout dimensions. During this phase individuals are likely to distance themselves from people, lack information and lack social support. They perform poorly and are also in a deficit condition for mobilizing emotional resources to deal with stressors (Leiter, 1993). Since the phases propose progressive virulence, individuals in advanced phases will experience more serious consequences than those in less advanced phases. However, no individual will proceed through each of the eight phases on the way to full burnout. These phases are illustrated in Table 2.1 and are briefly discussed.

Table 2.1: Golembiewski's (1998) Phase Model of Burnout

Phase	Phase Depersonalization	Personal Accomplishment	Emotional Exhaustion
1	Low	Low	Low
2	High	Low	Low
3	Low	High	Low
4	High	High	Low
5	Low	Low	High
6	High	Low	High
7	Low	High	High
8	High	High	High

Source: Gachutha (2006)

The progression through the phases can be chronic or acute with each having several characteristics and flight paths. Cipriano (2002, p.24-25) describes the progression through the various phases.

> A chronic flight path begins with a move from low-level scores on all dimensions (Phase I) to exhilibitating high depersonalisation (Phase II). The lack of support and information that accompanies states of depersonalization can impede on job performance which in turn create feelings of reduced personal accomplishment (Phase IV). The occurrence of depersonalization and reduced personal accomplishment can overwhelm the individuals coping resources and creates a state of emotional exhaustion (Phase VIII). Alternatively, the individual can have an acute flight path which can occur in many forms but all include the dimension of high emotional exhaustion.

The phase model does not maintain that the individual should or must progress through each phase, but contends that each phase is "progressively virulent" (Cipriano, 2002, p.61). This model suggests that an individual with high stress relative to his or her's coping ability will experience burnout. The phase model admits two basic forms of onset. Chronic onset refers to progressively worsening conditions at the worksite, whereas acute onset refers to some sudden, traumatic stimulus for example death of a loved one, which may precipitate a Phase I or II into Phase V or VI respectively (Schaufeli, et. al., 1993). Individuals are likely on average to

experience the following during each phase:

- "Decreasing satisfaction with work;
- Heightening tensions at work;
- Poor performance appraisals;
- Decreasing self-esteem;
- High turnover;
- Greater physical symptoms;
- Anxiety and depression"; and so on. (Golembiewski et. al., 1993, p213).

Cherniss (1980a) proposes a Process Model of burnout as a contrast to the Multidimensional and Phase Models.

2. 4.3 Process Model of Burnout: Cherniss (1980a)

Cherniss (1980a) views aspects of the work environment and the characteristics of the individual as sources of strain. Individuals react differently to sources of strain for example taking less responsibility of work outcome, or becoming detached from work (Cooper, Dew & O'Driscoll, 2001). This negative attitude forms the basis of Cherniss's (1980b) definition. Cherniss's model proposes that burnout is linked to negative attitudes which in turn incorporate a wide range of variables. Cooper et al. (2001) contend that a limitation to this model is that burnout is conceptualised too broadly and does not allow for differentiation between burnout and job strain.

Another prominent researcher, Leiter (1993) focuses on the process of burnout where he places burnout in a time perspective and regards it as a developmental process. He agrees that burnout is a three-dimensional construct which includes: emotional exhaustion, depersonalisation and reduced personal accomplishment. He however, criticizes the phase model (Golembiewski et. al., 1998) in that this model focuses too much on the first dimension, emotional exhaustion and ignores the other dimensions. Additionally, Leiter's (1993) view on the process model of burnout is that emotional exhaustion results from a demanding work environment which contributes to increased depersonalisation. Depersonalisation occurs after the emotional resources have been

depleted and reduced personal accomplishment develops parallel to, but separately from, emotional exhaustion and depersonalization (Leiter, 1993).

2.4.4 Burnout as a Developmental Process

Burnout as a developmental process proposes that personal accomplishment is a function of the work environment. This model proposes that demanding aspects of the environment aggravate exhaustion which contributes to increased depersonalization, while resources such as social support influence personal accomplishment. These two aspects appear to contribute to exhaustion and diminish accomplishment. Furthermore, this model also proposes that diminished accomplishment develops in parallel with emotional exhaustion as they arise as reactions to different aspects of work environments that pose difficulties for human service workers (Leiter, 1993). Hobfoll (1989) proposes another additional model called the Conservation of Resources Theory model.

2.4.5 Conservation of Resources (COR) Theory of Burnout: Hobfoll (1989)

The Conservation of Resources Theory (COR) (Hobfoll, 1989) is a basic motivational theory which states that when motivation is threatened or denied, stress follows that eventually may lead to burnout. The driving force of the COR theory is that individuals strive to maintain and obtain what they value as being resources. When the work environment threatens the obtainment and maintenance of resources, stress is most likely to occur. Thus, psychological stress is likely to occur when resources are threatened and lost, when individuals invest in resources and do not see the return on investment. Resources can be seen as clothing, employment, skills and money. In addition, the greater noticeable loss occurs during periods of physical and psychological overload. This occurs when an individual doubts his or her ability to make quick judgments when decisions are demanded. The COR theory suggests that interventions should be based on enhancing resources elimination vulnerability to resources loss (Hobfoll, 1989). This theory also highlights that people need resources to successfully meet the challenges they face (Hobfoll & Freedy, 1993). Demerouti Bakker, Nachreiner, & Schaufeli (2001b) state that if there are high job demands such as work overload, the individual will experience exhaustion but not

necessarily disengagement. High disengagement will occur when the individual lacks job resources such as rewards. Thus, burnout is related to specific working conditions.

Thus, various models of burnout (Golembiewski et. al., 1993, 1998) suggest that the end state of burnout is closer to what Cherniss (1980a), Maslach and Jackson (1986) and Hobfoll (1989) proposed. These models regard burnout as a chronic condition that differs in the process through which the condition arises. Maslach and Jackson (1986) and Hobfoll (1989) propose that their chronic sequence begins with depersonalization (Phase II). This is followed by a decrease in personal accomplishment (Phase IV) and ends with an increase in emotional exhaustion (Phase VIII). Thus, a person experiencing burnout in the context of a difficult occupational and social context is indistinguishable from one who is reacting to a stressful life event in terms of their burnout phase. Furthermore, the difference lies in the process through which they reached the end state (Leiter, 1993). In addition, irrespective of which model is selected to explain burnout, they provide ways to explain the burnout phenomenon. In theory it is widely accepted that occupational stress presupposes burnout (Lazarus & Folkman, 1984) and therefore the following section will briefly explain the relationship between stress and burnout.

2.5 Burnout and Stress

2.5.1 Stressor-strain relationship and burnout

Previous research on burnout and stress has been broadly defined to include perceived external demands which exceed or deplete a person's coping resources and gratification of his or her personal need or desires (Bakker & Schaufeli, 2000). Briefly stated, stressors cause stress in the short-term while in the long-term these stressors can have an accumulating effect, which cause burnout (Gold & Roth, 1993). Brill (1984) refers to stress as a temporary adaptation process that is accompanied by mental and physical symptoms. However, those who experience stress must be able to return to their normal level of functioning. This is viewed where adaptation has successfully occurred. Since Schaufeli and Enzmann (1998) regard burnout as prolonged stress, burnout can therefore be referred to as a breakdown in adaptation accompanied by chronic malfunctioning at work.

Stress has been defined as a state that occurs in a person when the confrontation with perceived demands, exceed the person's ability to deal with those demands. Stress is triggered when the situation is either perceived as a challenge or as a threat to the individual (Bagraim, Potgieter, Viegde & Werner, 2003). Job related stress has been defined as an uncomfortable feeling which is experienced by the individual, who is required to change his or her desired behaviour as a result of constraints, opportunities or demands which is related to the work objectives (Beehr *et al,* in Bagraim et. al., 2003). The consequence of experiencing long-term stress without returning to a balance state is burnout.

In addition, many burnout researchers (Buunk & Schaufeli, 1993; Wallace & Brinkerhoff, 1991) consider the Maslach Burnout Inventory factor of emotional exhaustion to be the core symptom of burnout. Emotional exhaustion has been associated with excessive stimulation with stress (Maslach & Jackson, 1981). Furthermore, emotional exhaustion has been linked to excessive and prolonged levels of job tension, which then produce strain of feelings of tension, irritability and fatigue (Cherniss, 1980a). On the one hand, Malsach and Jackson (1981, p.100) define emotional exhaustion as "feelings of being emotionally extended and exhausted by one's work" and therefore emotional exhaustion relates to the core theme of burnout. On the other hand, Leiter (1993) believes fatigue and personal accomplishment measures the skills utilization, control and coping with burnout. Additionally, when an individual feels that he or she can no longer tolerate occupational pressures and feels overwhelmed by stress he or she is likely to reach breaking point and experience burnout, which may change attitudes and behaviour. Employees in services organisations such as police officers, social workers, nurses, teachers and workers who have extensive interaction with demanding populations are said to be more vulnerable to high degrees of burnout. Furthermore, burnout is often viewed as a negative emotional reaction by the individual to work-related stress (Cordes & Dougherty, 1993). This negative emotional reaction is depicted through the following diagram in Figure 2.1:

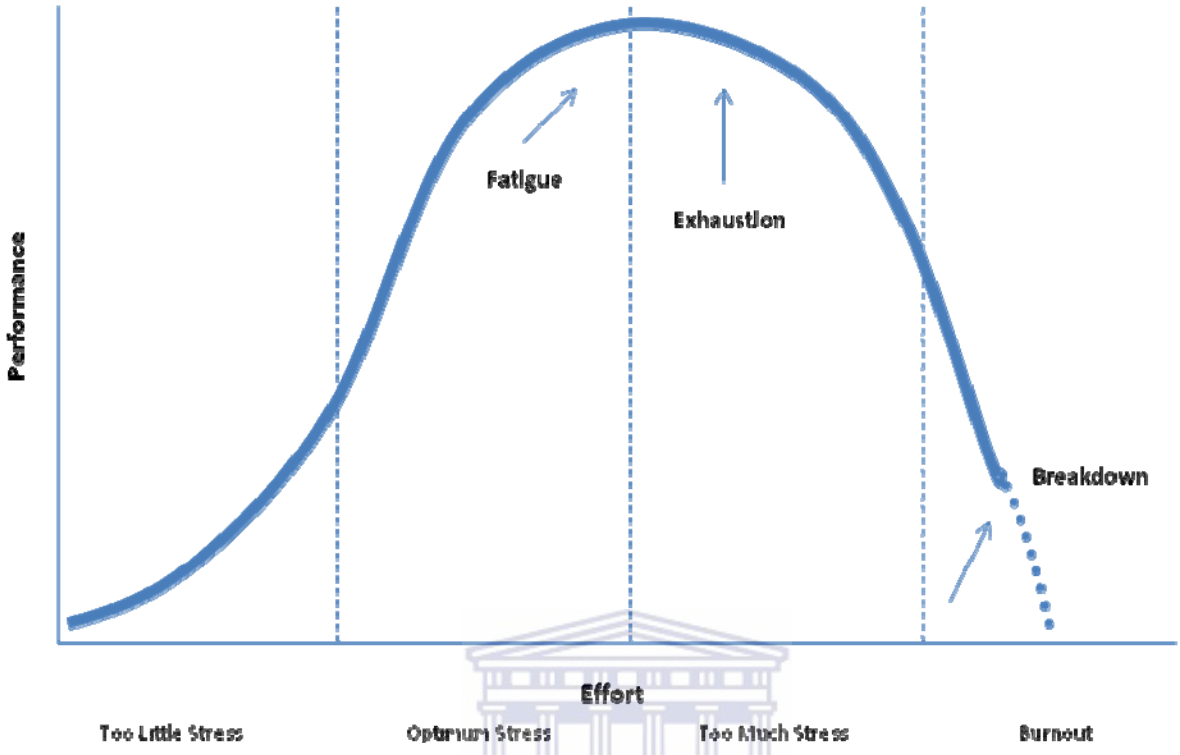

Figure 2.1: Negative emotion reaction of the individual to work-related stress
Source: Schafer (1996, p. 36 cited in Bagraim, 2003).

2.5.2 The Individual and Burnout

Maslach, Schaufeli and Leiter (2001) regard burnout as an individual experience that is specific to the work environment. A range of possible causes of burnout include demographics and personality characteristics, work attitudes, work and organisational characteristics (Maslach et. al., 2001). Nelson and Simmons (2003) state that based on a holistic wellness model, burnout could be regarded as an outcome of stress. This model incorporates a broad range of occupational characteristics that can be divided into job demands and a lack of resources (stressors) and individual difference variables that may be salient for cognitive appraisal and coping.

Why is burnout such a problem for those who experience it? Couper (2005a) highlights the following as possible reasons:

- Burnout is not easy to recognise in oneself, until a crisis point is reached;
- People do not find it easy to accept in themselves and admit to others;
- Colleagues tend to cover up for each other, instead of confronting and dealing with the issue and to help the person experiencing burnout-out to deal with it;
- Burnout is difficult to treat as some may view that it requires a change in what we are doing, and can affect our futures and careers.
- Another possible reason is experiencing burnt-out is related to unrealistic, high aspirations and expectations of oneself, combined with impossible goals (Couper, 2005b). Ellis (2005) however, suggested that being burnt out has nothing to do with an individual's workload or their working conditions but has to do with his or her self-esteem.

In trying to explain why certain individuals experience burnout, Couper (2005b) believes that it is because individuals constantly give themselves to others, juggling between them and themselves. This results in challenges for the individual as he or she has to maintain boundaries between their different roles, responsibilities and allowing space for certain ones to dominate. However, being burnt-out has different effects on people: some may experience an illness and others may experience emotional difficulty. Personality types are also important, as some types may be able to deal with prolonged effects of stress and burnout, while others may cave in within a few months (Couper, 2005b).

2.5.3 Type A and B Personalities

Personality patterns are related to an individual's ability to tolerate stress. This relationship is apparent with Type A and Type B personalities.

Theron (2005) highlights that individuals with Type A personalities are highly competitively driven and have a constant sense of urgency. They are described as ambitious and aggressive

individuals who always strive to achieve, racing against time and rushing from one deadline to the other. They are attracted to high-stress, fast-paced, competitive and demanding jobs. Type A's are known to be in a continual state of being stressed. This means that even when their work environment is stress free, they carry their own stress. A fundamental part of the Type A personality is to create own stress. Thus the likelihood of experiencing burnout is higher among Type A personalities. Employees suffering from burnout tend to find fault with all aspects of their work environment, including co-workers. In time, they will have an impact on the emotional health and efficiency of co-workers and subordinates (Theron, 2005).

Theron (2005) suggests that individuals with Type B personality are likely to experience less stress at work and at leisure. They work as hard as Type A's within an equally stressful environment but experience and suffer fewer harmful effects. These two personality types respond differently to stress. Individuals with a Type A personality tend to struggle in mastering a difficult situation, and if they view themselves to be unsuccessful with their attempts at a task or have an unsuccessful result after a task, they are more likely to give up and become frustrated whereas individuals with Type B personality will try to function as effectively as possible and will not give up.

The characteristics of Type A personalities include a large amount of drive, energy, being competitive, passionate, focused, punctual, impatience with self and others and good at applying pressure on themselves and others. In contrast, Type B personalities are laidback, relaxed, patient, easy going and not very ambitious (Roseman, 1991). Type A's are more prone to experience stress and burnout as a result of their driving nature (Furnham, 2001). A solution in managing stress in Type A is to have high levels of self-awareness and to consciously manage their thinking patterns that cause unnecessary pressure (Theron, 2005). Personality types could be associated with physical and psychological problems that originate from experiencing burnout. There are however prolonged effects of stress that, over time, may lead to burnout.

2.5.4 Risk Factors and Sources of Burnout

The high cost of burnout to organisations results in high turnover, absenteeism, increased health care costs, decreased work performance; an additional critical area of intervention is thus needed in the workplace. The following are typical sources of burnout. These factors could be grouped according to occupation design, role demands, and organisational design and peer or supervisor relationships.

2.5.4.1 Job and role demands

Role overload is likely to occur when an individual experiences excessive demands, resulting in an increase in stress. Subsequently, the increased stress will have harmful effects on the individual, the organisation and the client, the community and stakeholders. Literature suggests that burnout can occur in any setting where there is inequity between job demands and occupational resources (Demerouti et. al., 2001). They proposed that burnout occurs when occupational resources are limited resulting in negative working conditions leading to energy depletion and undermining employees' motivation respectively (Demerouti, et. al., 2001, p.499). Moreover, they conceptualise burnout as a two-dimensional model of exhaustion and disengagement that is only related to personal accomplishment.

The Job Demand-Resources Model (JD-R) proposes that burnout follows two processes (Demerouti et. al., 2001). In the first process, job demands lead to exhaustion which may cause ill-health. The second process entails a lack of resources leading to withdrawal and eventually to disengagement. Occupational demands refer to physical, social or organizational aspects of the occupation that requires sustained physical or mental energy (Demerouti et al, 2001). Occupational resources are those physical, psychological, social or organizational aspects of the work reducing, work demands and stimulating personal growth and development (Demerouti et al., 2001).

2.5.4.2 Supervisor and peer factors

Social support, such as family, friends, bosses, supervisors and colleagues, has emerged in the study of causes of stress and the prevention of burnout (Skovolt, 2001). High levels of supervisor support have been negatively associated with emotional exhaustion and depersonalisation (Brown and O' Brien, 1998). Zellars and Perrewe (2001) contend that emotional social support, as a type of emotional coping, has significant effects on occupational burnout.

2.5.4.3 Gender, race, organisation and burnout

Research concerning gender and burnout for other occupations does not reveal consistent findings. This could be due to men and women occupying different occupational roles (Campbell & Rothmann, 2005). In terms of race and burnout, white employees showed higher levels of exhaustion compared to blacks. This may be attributed to different demands faced by white employees because of employment equity and organisational transformation (Coetzee & Rothmann, 2004). Due to changes in the economy, employment conditions have changed and as a result many workers have become vulnerable to occupational burnout relating to job insecurity (Schaufeli, Bakker, Hoogduin, Schaap & Kadler, 2001). Furthermore, Couper (2005b) believes that individuals can only absorb a certain amount of stress and tension, but reach a point where they are in danger. The following are some warning signs that individuals are at risk: loss of meaning, lack of focus and decreased efficiency, depleted inner resources, irritability and lack of insight. Couper (2005b) recommends that to deal with burnout, individuals need to undergo a journey of change. Individuals need to move out of the roles others define for them, look at themselves, define their own roles and decide the importance of them. It is only once this process is internalised and thought patterns are changed, will they become less at risk. The first step is to recognise own limitations and develop strategies to avoid burnout.

2.6 Research Studies

Burnout has been consistently compared to other constructs. This section will briefly look at research studies done using various constructs and their relationship with burnout.

2.6.1 Work-family stress, conflict, coping and burnout

The results of a study conducted with a sample of 825 police members regarding work-family stress, conflict, coping and burnout using questionnaires, revealed that work stressors (r values ranging from 0.29-0.55) and psychological burnout were fairly significantly related to levels of self-reported work attitudes, emotional and physical well-being (r values ranging form 0.11-0.29). Work –family conflict and coping were unrelated to work attitudes and self-report emotional and physical well-being (Burke, 1993).

2. 6.2 Occupational stress, burnout and coping strategies

Mostert and Joubert (2005) found that occupational stress due to occupational demands and a lack of resources lead to burnout. Avoidance coping moderated the relationship between occupational stress and burnout whereas approach coping had an independent effect on burnout. Exhaustion correlated significantly with cynicism (r values ranging from r=.60) and occupational demands (r=.36-.50). Stress- lack of resources (r=0.31-0.42) correlated only statistically significantly with avoidance (r=0.23-0.27) and turning to religion (r=-.11-.34). Instruments utilised in this study was the Maslach Burnout Inventory-General Survey (MBI-GS), The Police Stress Inventory and the COPE Questionnaire among a sample of N=340 police members.

2.6.3 Occupational characteristics, optimism, burnout and ill-health

Rothmann and Essenko (2007) found that occupational demands and a lack of resources contributed to burnout. Burnout, in turn, mediated the effects of occupational demands and a lack of occupational resources in terms of ill-health. Temperament and optimism had a direct effect on exhaustion and cynicism and did not interact with occupational demands or occupational resources in affecting exhaustion and cynicism. Results revealed that occupational demands, occupational resources and optimism contributed directly to exhaustion. However, optimism did not moderate the effects of occupational demands and occupational resources concerning exhaustion.

2.6.4 Occupational characteristics, burnout and ill-health

Montgomery, Mostert and Jackson (2005) found that occupational demands (r=0.51) and a lack of occupational resources (r=-.43) contributed to ill-health (R^2=0.51) through burnout (R^2=0.45), indicating that burnout mediated between job characteristics and ill-health. Instruments utilised in this study were the MBI-GS, The Job Characteristics Inventory and the Health Sub-scale of an Organisational Stress Screening Evaluation Tool (ASSET). This study was conducted with a sample of N=646 Primary school educators. Results show that occupational demands of educators, having too much work, or working under pressure are strongly related to burnout. Furthermore a lack of occupational resources such as not having resources that foster growth and development could also lead to burnout (Montgomery et. al., 2005). This finding implies that burnout mediates the stimulus, occupational characteristics and the response, ill-health (Baron & Kenny, 1986).

2.6.5 Burnout, work engagement and sense of coherence

Levert, et. al., (2000) found that emotional exhaustion (r values ranging from r=0.29-0.47) and depersonalization (r values ranging from r=.23-.31) correlated significantly with all factors of work environment and with the sense of coherence (r=.41; r=.36). Personal accomplishment only related to role conflict. Instruments utilised in this study were the MBI and Sense of Coherence. Work load and Lack of collegial support and Role conflict and Role ambiguity Questionnaires. This study was conducted among a sample of N=94 psychiatric nurses employed at two government hospitals. Results revealed that the role of the psychiatric nurses is inherently very stressful. This is due to the heavy workload, lack of collegial support, role conflict and role ambiguity. This also indicates whether nurses belief of having the resources to meet their environmental demands, may determine whether or not they will experience emotional exhaustion and depersonalization (Levert et. al., 2000).

2.6.6 Coping, stress and burnout

Wiese, Rothmann and Storm (2003) found that occupational demands are associated with exhaustion. They also found passive coping strategies contributed to exhaustion and cynicism while emotional support led to lower exhaustion. Furthermore, stress due to a lack of resources, active coping strategies and not coping passively impacts on professional efficacy. Instruments used in this study were the MBI-GS, the COPE and Police Stress Inventory among a sample of N=257 police personnel. Results revealed that experiencing high stress because of occupational demands and a lack of occupational resources were related to high levels of exhaustion and passive and poor coping strategies as the individual was not addressing the problem experienced. Passive coping related to cynicism and exhaustion and low levels of professional efficacy. When adopting passive coping strategies, the individual addresses part of the problem. The stress that occurs from addressing the problem accumulates until burnout occurs due to adopting passive coping strategies (Rothmann & Storm, 2003).

2.6.7 Personality and burnout

Personality may also affect employees' burnout. Studies found that neuroticism was positively related to exhaustion. Exhaustion also correlates to extraversion, agreeableness and conscientiousness (Schauefi & Enzmann, 1998).

In reviewing the previous studies investigating burnout with other constructs or variables, the research results are summarised as follows in Table 2.2:

Table 2.2: Research Dissertations (1993-2007)

Researcher: Year	Variables: Sample	Findings
Burke (1993)	Work-family stress, conflict, coping and burnout Sample: 825 police members	Work stressors and psychological burnout were significantly related to levels of self-reported work attitudes, emotional and physical well-being. Work – family conflict and coping were unrelated to work attitudes and self-report emotional and physical well-being.

Schaufeli and Enzmann (1998)	Personality and Burnout	Neuroticism was positively related to exhaustion. Exhaustion correlated to extraversion, agreeableness and conscientiousness.
Levert, Lucas and Ortlepp (2000)	Burnout, work engagement and sense of coherence Sample: 94psychaiatric nurses	Emotional exhaustion and depersonalization correlated significantly with all factors of the work environment and with the sense of coherence. Personal accomplishment only related to role conflict.
Wiese, Rothmann and Storm (2003)	Coping, stress and burnout Sample: 257 police personnel	Occupational demands are associated with exhaustion. Passive coping strategies contributed to exhaustion and cynicism while emotional support led to lower exhaustion. Stress due to a lack of resources, active coping strategies and not coping passively impacts on professional efficacy.
Mostert and Joubert (2005)	Job stress, burnout and coping strategies Sample: 340 police members	Occupational stress due to occupational demands and a lack of resources leads to burnout. Avoidance coping moderated the relationship between occupational stress and burnout whereas approach coping had an independent effect on burnout. Exhaustion correlates significantly with cynicism and job demands. Stress-lack of resources correlates only statistically significantly with avoidance and turning to religion.
Montgomery, Mostert and Jackson (2005)	Job characteristics, burnout and ill-health Sample: 646 Primary school educators	Occupational demands and a lack of occupational resources contributed to ill-health through burnout, indicating that burnout mediated between job characteristics and ill-health.
Rothmann and Essenko (2007)	Job characteristics, optimism, burnout and ill-health	Occupational demands, occupational resources and optimism contribute directly to exhaustion. However, optimism did not moderate the effects of occupational demands and occupational resources on exhaustion.

Based on these research studies, the following interventions were recommended in dealing with burnout. These are briefly discussed.

2.7 Interventions

Interventions to reduce burnout have always been popular. However, no recipe has emerged to reduce burnout. Numerous approaches in combating burnout is said to be effective. Individual or group based interventions and workshops seem to be effective, particularly in reducing exhaustion in the short run. On the contrary, evidence for long-term effects and for the effectiveness of the organisations based interventions continue to be very weak (Schaufeli, 2003).

Schaufeli and Enzmann (1998) describe relaxation as an individual secondary preventative approach targeted at groups at risk. Occupation redesign is regarded as an organisational, primary preventative approach targeted at all employees. Burnout workshops include self-assessments, didactic stress management, relaxation, cognitive and behavioural techniques, time management, promotion of a more realistic image of the occupation and peer support. The aim of these workshops is to increase the individuals' awareness of work related problems and to enhance their coping resources by providing skills training and social support.

Furthermore Schaufeli (2003) states that these types of interventions are rather general instead of being tailored specifically to reduce burnout. Most interventions are biased towards the individual, whereas organisational based interventions are rather scarce. There also appears to be only few well-designed studies that document the effectiveness of burnout interventions. Studies show that exhaustion which is regarded as the core component of burnout can be reduced by training employees to use coping skills such as relaxation and cognitive restructuring. It should be noted that burnout workshops aims to reduce negative arousal and nor at changing attitudes (cynicism) or to enhance professional skills or resources (efficacy).

De Geus, Van Son, Le Blanc and Schaufeli (2000) carried out a burnout prevention training programme in nine functional teams of oncology care providers that focused on improving the situation rather than on changing the individual. Results revealed that immediately after training in comparing the teams, showed lower levels of exhaustion. This unfortunately disappeared after six months follow-up. Thus, the decrease in exhaustion levels was short-lived (Schaufeli, 2003).

Van Dierendonck, Garssen and Visser (2005) found in comparing results with the comparison and intervention group, results showed a decrease in exhaustion (R^2=6.02-4.72) and an increase in professional efficacy (R^2=4.20-12.43), happiness (R^2=4.16-9.97), an improvement in the clarity of emotions (R^2=5.44-7.17), the repair of negative emotions (R^2=5.04-5.35), purpose and in meaning in life (R^2=3.61-9.34), inner resources (R^2=8.92-32.12) and transcendence (R^2=8.64-9.44). These results were stable over a six month period. No significant results were found in changes for cynicism, relative deprivation, unifying connectedness or attention to emotions.

These results indicate that a personal-oriented prevention programme can be effective in reducing burnout and therefore enhancing happiness, emotional intelligence and feelings of spirituality. Thus, experiencing personal growth over a period over time lessens the effects of experiencing of burnout.

Burnout will only be taken seriously by organisations to the extent to which it demonstrates and contributes to poor business performance. Only then will organisations be inclined to invest in preventative, organisational based anti-burnout programmes when positive results can be obtained in terms of lower level of illness, turnover rates and better performance. The environment, in which employees in South Africa function, demands more of employees than elsewhere in the world. The employment relationship has changed where employees are required to take on longer working hours and working arrangements that are against their preferences. Additionally, organisations have implemented practices that attempt to reduce costs, increase productivity which often lead to a mentality that favours profitability over the welfare of people. Employees have to cope with many demands, limited resources and a lack of control. The effectiveness of the individual coping with such demands is likely to impact on his or her well-being, organizational efficiency and effectiveness (Turner, Barling, & Zacharatosl, 2002).

2.8 Conclusion

The aim of this section was to provide some historical and theoretical development of the burnout construct. Reference was made to various conceptualisations, models, problems relating to the construct, various burnout research studies and interventions. In summary, the literature review shows that since the inception of the burnout phenomenon, much progress has been made as burnout can occur within any occupational and professional groups. The next chapter focuses on discussing various literature with regard to emotional intelligence.

Chapter 3

Theoretical aspects Emotional Intelligence

3.1 Introduction

The current chapter presents the theoretical framework of emotional intelligence. The framework incorporates and discusses relevant literature and research related to this construct. Reference is made to various conceptualisations, theoretical models, and problems relating to the construct. Lastly, reference was also made to various research studies and interventions.

3.2 Historical roots of Emotional Intelligence

The concept of emotional intelligence is not a new one. The concept was originally acknowledged by Thorndike (1920). He was the first theorist to acknowledge that there are multiple and social intelligences. He wrote about social intelligence in the late thirties and believed that there were different types of intelligence. These different intelligences he names Abstract Intelligence, Concrete Intelligence and Social Intelligence. According to Thorndike (1920) Abstract Intelligence measures IQ tests; Concrete intelligence refers to the type of intelligence that is used in understanding and manipulating objects and shapes and Social intelligence was known as emotional intelligence.

Thorndike and Stern (1937) concluded that social intelligence was composed of three components: attitudes towards society, social knowledge and degree of social judgment. They determined that social intelligence was too complex to be measured and the difficulties inherent in measuring interactions with people were too large an obstacle to overcome. Unfortunately, the work of these pioneers was forgotten and overlooked until Gardner (1983) and Gardner and Hatch (1989). These authors presented their perspectives regarding multiple “intelligence” including inter- and intrapersonal intelligences.

According to Gardner (1983) multiple "intelligence" refers people having the ability to know and understand their emotions, other individuals' emotions and intentions, which are believed to guide one's behaviour. He further states that both categories of inter-and intrapersonal skills pass the test of intelligence where both require problem-solving with significance for the individual, where both categories allow an individual to understand and work with him/herself, and to allow an individual to understand and work with others. Payne (1985) referred to emotional intelligence as an emotional quotient that is used to assess an individual's emotional intelligence score (Bar-On, 1988). Salovey and Mayer (1990) highlighted four criteria to identify emotional intelligence as "intelligence". This includes the following:

- It had to be defined,
- A means for measuring it had to be developed,
- Its independence from other intelligence had to be documented, and
- Its real world predictability had to be demonstrated (Salovey & Mayer, 1990).

This in turn led to the initial development of the emotional intelligence concept that was first identified in 1990 (Salovey & Mayer, 1990). Salovey and Mayer (1990) were aware of the previous work with regard to non-cognitive aspects of intelligence and were the first to publish the term emotional intelligence (Mayer, Dipaolo & Salovey, 1990). Salovey and Mayer (1990) also proposed the first model of emotional intelligence. Their research studies advanced emotional intelligence to the research community. Goleman (1995) used the research of Salovey and Mayer and created an awareness of emotional intelligence to the mainstream public with his first publication on the topic in 1995. He suggested that the existing ways of measuring human intelligence were not suited to the workplace and as a result he developed his own system of defining and measuring useful traits. In addition, Goleman's awareness of emotional intelligence fuelled many research studies that were subsequently published during the second half of the 1990s. This was followed by a number of refinements of the concept along with the introduction of new measures (further discussed in the next chapter). The recent research Bar-On (2000) concerning emotional intelligence builds on Goleman's foundation. However, there appears to be a lack of research to support the validity of emotional intelligence since its inception. This was attributed at the time to the publication of Goleman's book in 1995. Currently, some scepticism

still exists, criticising the methodology of the research during the last seven years (Barrett, 2001). The work of Thorndike (1920), Gardner (1983) and Gardner and Hatch (1989) has been used as the foundation for developing more recent models of emotional intelligence as highlighted by Bar-On (1997), Mayer and Salovey (1990) and Goleman (1995). Thus, various conceptualisations of emotional intelligence have evolved.

3.3 The Nature and Definition of Emotional Intelligence

Dulewics and Higgs (2003) believe that the literature suggests a debate in terms of precise definition and conceptualisation of emotional intelligence. This debate is probably due to the developments and various conceptualisations of emotional intelligence. Dulewics and Higgs (2000) maintain that literature in this emerging field contains a confusing range of varyingly related and overlapping terminology such as emotional intelligence (Goleman, 1996; Salovey & Mayer, 1990), emotional literacy (Steiner, 1997), emotional quotient (Bar-On, 1997a), personal intelligences (Gardner, 1983), social intelligence (Thorndike, 1920) and interpersonal intelligence (Gardner & Hatch, 1989). However, being a multifaceted construct, there are several definitions of what emotional intelligence is and what the concept actually encompasses. Salovey and Mayer (1990, p.5) initially defined emotional intelligence as,

> the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking an actions.

These researchers acknowledged that their original definition was vague and poor and as a result revised and expanded the original definition. Mayer, Salovey and Caruso (2000a, p.273) define emotional intelligence as:

- "The ability to perceive, appraise and express emotion accurately and adaptively,
- The ability to understand emotion and emotional knowledge,
- The ability to access and generate feelings where they facilitate cognitive activities and adaptive action, and
- The ability to regulate emotions in oneself and others".

Their definition of emotional intelligence includes both inter-and intrapersonal skills. These skills outline five domains: knowing one's emotions, managing emotions, motivating oneself, recognising emotions in others, and managing relationships (Salovey & Sluyter, 1997). Furthermore, this definition suggests that an "emotionally intelligent" person is one who is able to process emotion information and to use this information in cognitive tasks and other required behaviours (Palmer & Jansen, 2004). Thus, emotional intelligence allows the person other ways of being and behaving. There is a possibility for the person to develop these skills to become more effective and efficient in both day-to-day living and in the workplace (Van Jaarsveld, 2003).

In contrast, Goleman (1997) defines emotional intelligence as:

- Knowing what you are feeling and being able to manage those feelings without feeling swamped,
- Being self-motivated to complete tasks, being creative and performing at fullest potential, and
- Sensing what other are feeling, and managing relationships effectively.

Martinez-Pons (1997, p.72) provides another definition of emotional intelligence as "an array of non-cognitive skills, capabilities and competencies and pressures". This definition encompasses skills that assist an individual to cope with day-to-day living in the world. Goleman (1996, 1997) is of the opinion that traditional ideas of intelligence should not be disregarded, as these are also relevant to the individual's daily living skills and work performance. Rather, he suggests looking at both traditional intelligence and emotional intelligence concepts.

However, another well known emotional intelligence theorist, Bar-On (1997b) defined the emotional intelligence construct as a multifactorial range of interrelated emotional, personal and social abilities that influence an individual's overall ability to actively and effectively cope with demands and pressures. Thus, these abilities as Bar-On (1997b) conceptualise it, is more a type of emotional competence rather than an inherent intelligence.

However, Bar-On (1997b), Salovey and Mayer (1990, 1997) and Goleman (1995), have overlapping perspectives concerning the topic of defining emotional intelligence. They define emotional intelligence using similar characteristics but they simply categorise them differently. As Ciarrochi, Chan and Caputi (2000) point out, although definitions within the field of emotional intelligence vary, they tend to be of a complementary rather than a contradictory nature. Most of these definitions appear to include and focus on the same four main components of emotional intelligence, namely, 1. The perception of one's emotion; 2. The perception of others' emotions; 3. The regulation of that emotion, and 4. Understanding and the utilisation of that knowledge (Ciarrochi, et. al., 2000). These components comprise of a combination of emotional and interpersonal competencies that influence behaviour, thinking and interaction with others (Macaleer & Shannon, 2002). Furthermore, common threads among these researchers include: empathy, labelling emotions, understanding relationships, self-control, self-awareness, responsibility, assertiveness and coping skills. All of these researchers tend to share a common desire to understand and measure the abilities and traits related in recognising and regulating emotions in ourselves and others (Goleman, 2001). These threads are summarised in Table 3.3.

3.4 The Importance of Emotional Intelligence

There has been an increase in the potential benefits of exploring emotional intelligence both for the individual and the organisation. Emotions have an important impact on everything that people do. Klausner (1997) suggests that an individual's emotional intelligence can be seen to dictate interpersonal relationships. Despite this, managers in the workplace would rather steer away from dealing with emotional issues. Several researchers, (Mandell & Pherwani, 2005; Coetzee & Schaap, 2005; Caruso, Mayer & Salovey, 2002) suggest that emotional intelligence is essential for effective leadership. In contrast Goleman's (1998) studies show that emotional intelligence is far more important than technical skills and IQ at all levels in the workplace. Although the work of Goleman (1998) seems appealing, his views have been widely criticized for lack of scientific substance. However, this does not mean that the work of Goleman is insignificant, but rather his work should be interpreted with caution.

Emotional intelligence has been closely linked to various constructs. For example, research conducted by Schutte, et. al., (1998) show that emotional intelligence is associated with affective outcomes such as greater optimism, less depression and less impulsivity. Emotional intelligence has also been found to be positively linked to task mastery and life satisfaction and is negatively linked to symptoms of depression (Martinez-Pons, 1997). Ciarrochi, Deane and Anderson (2002), found that emotional intelligence moderated the relationship between stress and mental health. People with high emotional intelligence seemed to adapt better to stress and respond less to suicidal ideation. They also reported less depression and hopelessness, though these were unrelated to stress. The results suggest a link between emotional intelligence and stress. This link could be based on the assumption that negative emotions and subsequent stress are the result of some dysfunctional relationship between the individual and the environment. Thus emotional intelligence is about how or the way in which individual's effectively integrate emotions with thought and behaviour in order to act to reduce negative emotional experiences (Mayer, et. al., 2000b). Furthermore, emotional intelligence is most likely to have an impact on a person experiencing the consequences of job stress and burnout (Gardner, 2006). As Nikolaou and Tsaousis (2002) highlight those professionals with high emotional intelligence suffer less stress that is related to the occupational stress. Cipriano (2002) proposes that opportunities have been provided to employees to better equip them with emotional intelligence competencies by using emotional intelligence training initiatives. This training would then protect employees against stress which also decreases the likelihood of experiencing and suffering burnout. The conceptualisation of emotional intelligences has resulted in the creation of various theoretical models in order to promote an improved understanding and application of the construct.

3.5 Development of Models and Multiple Theories of Emotional Intelligence

In the process of defining the construct of emotional intelligence, the subsequent development was that of theories. Over the years various theories of emotional intelligence have been put forward by Goleman (1995), Salovey and Mayer (1990) and Bar-On (1997b). While some argue that the goal of research should be to identify and define a singular theoretical framework which could be labelled as the "correct" version of emotional intelligence. Another approach would be to acknowledge that having multiple theories can often serve to elucidate additional aspects of

complex psychological constructs. Furthermore, one should remember too, that the existence of several theoretical viewpoints within the emotional intelligence paradigm does not indicate a weakness, but rather the robustness of the field. This kind of theorising is not unique and should not be viewed as undermining the validity and utility of the emotional intelligence field (Sternberg, Launtrey & Lubart, 2002).

In addition, Sternberg et. al., (2002. p3) comment on the current status of the field of intelligence by saying that "few fields seem to have lenses with so many colours". It has been noted that traditional intelligence has not seriously been threatened or discredited for having multiple theories. The continued debates and research on traditional intelligence has significantly led to the increase in our knowledge base. It has also broadened our understanding of the practical applications of intelligence assessments which can be applied to a wide range of population samples and issues.

3.5.1 Development of Emotional Intelligence theories

While multiple theories can be associated with the emotional intelligence paradigm, the three theorists that have generated the most interest in terms of research and application are the theories of Mayer and Salovey (1997), Bar-On, (1988, 1997a, 1997b) and Goleman (1998). Each theory represents a unique set of constructs that represents the theoretical orientation and context in which each of these authors have decided to frame their theory. They all tend to share a common desire to understand and measure the abilities and traits related to recognising and regulating emotions in individuals and others (Goleman, 2001). Furthermore, all theories within the emotional intelligence paradigm seek to understand how individuals perceive, understand, utilise and manage emotions in an effort to predict and foster effectiveness. The origins and motivations of each theory provide additional insight into why the specific constructs and methods were used to measure them (Hayward, 2005). Hence, the various emotional intelligence models will now be discussed in greater detail. The different emotional intelligence approaches do not necessarily contradict each other, but present different perspectives on the nature of emotional intelligence.

3.5.2 Mayer and Salovey's (1990; 2004) Ability Model of Emotional Intelligence

Mayer et. al., (1990, p.773) were the forerunners in the ability conceptualisation of emotional intelligence. They viewed emotional intelligence as the "recognition and use of one's own and others' emotional states to solve problems and regulate behaviour", and not "the general sense of self and the appraisal of others" (Salovey & Mayer, 1990, p.189). They defined emotional intelligence as the "subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide's one's thinking and actions". Thus, their definition is drawn from Gardner's definition of social intelligence, which includes the knowledge about oneself and about others (Salovey & Mayer, 1990). In addition, their definition of emotional intelligence can be seen as a type of emotional information processing that includes accurate appraisal of emotions in oneself and others, appropriate expression of emotion, and adaptive regulation of emotion in such a away as to enhance thinking. This definition reflects the general processing of emotional information and specifying the skills involved in such processing (Mayer et. al., 1990).

Salovey and Mayer's (1990) model can be summarized according to three main abilities:

- The appraisal and expression of emotion within self and others. It is said the quicker an individual assesses their own emotional state, the more emotionally intelligent they are.
- The regulation of one's emotions occurs in real-time as well as when an individual reflects on a past experience. This demonstrates an individual's ability to access emotion based on a previous experience and their willingness to try and evaluate the experience.
- Utilising emotions through the use of flexible planning, creative thinking and redirecting attentions and motivation. This encompasses an individual's need to harness their interpersonal emotions to solve problems.

Citing a need to distinguish emotional intelligent abilities from social traits or talents, Salovey and Mayer (1990) developed an updated model with a more cognitive emphasis from their original contribution. This model focused on the specific mental aptitudes for recognising and marshalling emotions and reflected what they viewed as an imperative characteristic, or some

measure of thinking about feeling, an aptitude lacked by models that focused simply on perceiving and regulating feelings. Since then, Salovey and Mayer's (1990) conceptualisation underwent further rethinking and development. A more revised and focused emotional intelligence definition was developed and defined as "an ability to recognize the meanings of emotions and their relationships and to reason and problem solve on the basis of them" (Mayer, Caruso & Salovey, 1999, p.267). This definition is based on four branches of abilities that range from basic psychological functions to more complex processing, and integrating emotion and cognition. These branches are reflected as follows:

Branch 1: The perception and expression of emotion

Branch one involves the capacity to recognise emotion in the non-verbal perception and expression of emotion in the face, voice and related communication channels (Mayer et. al., 2004). The skills and emotional intelligence abilities that allow an individual to perceive, appraise an express emotions include: "identifying one's own and others emotions, expressing one's emotions and discriminating the expression of emotion in others" (Stone, 2004, p.30).

Branch 2: The capacity of emotion to enhance thought and information processing

Using emotion to facilitate thought involves the capacity of emotions to assist thinking. Branch two involves developing a knowledge base about such experiences upon which the intelligence can draw knowledge from the link between emotions and thinking. This can be used to direct one's planning. For example, some types of problem solving are facilitated by some emotions and not by others (Mayer, Salovey & Caruso, 2004). The skills and emotional intelligence abilities that allow an individual to integrate emotions to facilitate and prioritise thought includes: "employing the emotions to aid in judgment, recognising that mood swings can lead to a consideration of alternative viewpoints, and understanding that a shift in an emotional state and perspective can facilitate different kinds of problem-solving" (Stone, 2004, p.30).

Branch 3: The understanding of emotions

The understanding of emotion reflects the capacity to analyse emotions, appreciate their probable trends over time, and understand their outcomes. The skills and emotional intelligent abilities such as "labelling and distinguishing between emotion, understanding complex mixtures of feelings and formulating rules about feelings allows an individual to understand emotions" (Stone, 2004, p.30).

Branch 4: The management of emotion

The management of emotions involves the rest of personality. Thus, emotions are managed in the context of the individuals' goals, self-knowledge and social awareness. By early adulthood, the ability to emotionally self-manage has developed, including abilities to avoid feelings or to reframe appraisals to reassure one to achieve equanimity (Mayer et. al., 2004). This includes the general ability to:

- Assemble the emotions in support of some social goal, or
- Promote personal growth to selectively engage in or detach from emotions, and
- Monitor and to manage emotions in themselves and others (Stone, 2004, p.30).

Similarly, regulating emotions in others should lead to feelings of situational control.

The order of the branches from Branch 1 (The perception) to Branch 4 (Management) represents the degree to which the ability is integrated within the rest of the individuals' overall personality (Mayer et. al., 2004). Thus, Branch 1: the perception and expression of emotion and Branch 2: the capacity of emotion to enhance thought are different areas of information processing. Branch 3: the understanding of emotions and their outcomes may be located in the language system. Furthermore, in contrast to Branch 4: emotional management must be integrated within an individual's overall plans and goals. Mayer et. al., (2004, p.199) confirms that "within each branch it involves the developmental progressions of skills from the more basic to the more sophisticated".

In summary, Mayer and Salovey's theory of emotional intelligence has been framed within the model of intelligence. Their motivation in the development and measurement of this theory is based on the realization that traditional measures of intelligence failed to measure individual differences in the ability to perceive, process and effectively manage emotions and emotional information. Their framework defines emotional intelligence more specifically as the ability to perceive emotion, to access and generate emotions to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions to promote emotional and intellectual growth (Mayer & Salovey, 1997). They furthermore define emotional intelligence as a group of mental abilities, and is best measured using a testing situation that is performance or ability based.

Mayer et. al., (1999) also suggest that for emotional intelligence to qualify as an actual intelligence several criteria must be met:

- Any intelligence must reflect actual mental performance rather than preferred behaviour patterns, self-esteem, or other constructs more appropriately labelled as traits;
- The proposed intelligence should describe a set of related abilities that can be shown as conceptually distinct from established intelligences; and
- Intelligence should develop with age.

To date, the ability-model of emotional intelligence has provided evidence to support each of these required demands**.** Salovey and Mayer's model has led to the development of two ability emotional intelligence instruments called the Mayer-Salovey-Caruso Emotional Intelligence Test, more known as the MSCEIT and the Self-Report Emotional Intelligence Test (SREIT) (Brackett & Mayer, 2003). The MSCEIT was refined to version 2.0., The MSCEIT V 2.0 (Mayer, Salovey, Caruso & Sitarenios, 2003). A contrast to the ability model of emotional intelligence is the mixed model of emotional intelligence was proposed.

3.5.3 Mixed models of Emotional Intelligence

3.5.3.1 Goleman's (1995) theory of emotional intelligence

Since the development of the Salovey and Mayer's (1990) ability conceptualisation of emotional intelligence, the definition was refined quite substantially. The ability to understand and process emotion was mixed with some other characteristics as highlighted by Goleman's (1995, p.xii) "one's emotions, managing emotions…, motivating oneself.., recognizing emotions in others…, and handling relationships". He defines emotional intelligence as "managing people to work together smoothly towards common goals" (Goleman, 1998, p.7). He describes emotional intelligence that is based on five elements, namely: "self-awareness, self-regulation, motivation, empathy and adeptness in relationships. Our emotional competence shows how much of their potential we have translated into on-the-job capabilities" (Goleman, 1998, p.24-25). Later, his theory evolved to four overarching clusters of emotional intelligence skills: self-awareness, self-management, social awareness and relationship management (Goleman, 2001; Boyatzis, Goleman & Rhee, 1999). These clusters represent a recognition and regulation cluster for both the individual (self) and social competencies (other) (Goleman, 2001). Furthermore, Goleman's theory represents a framework of emotional intelligence that reflects how an individual's potential for mastering the skills of self-awareness, self-management, social-awareness and relationship management translated to success in the workplace (Goleman, 2001; 1995). His model offers four domains which becomes the foundation for learned abilities, or competencies, that depend on underlying strengths in the relevant emotional intelligence domain. These four domains include 1. self-awareness and self-regulation; 2. motivation; 3. empathy and 4. social skills.

1. Self-awareness and self-regulation

Goleman (1995) regards self-awareness to be the cornerstone of emotional intelligence. He defines self-awareness as knowing one's internal states, preferences, resources and intuitions. This 'knowing' is important to psychological insight and self-understanding. Being aware of how emotions affect individuals and how they react includes strategies of controlling their

reactions, which is particularly important because all emotions are accompanied by immediate physical actions. These immediate responses may result in appropriate behaviour according to the external, situational factors. For social survival, an employee must know the signs of the beginning of an appropriate response and have a strategy prepared that disengages the automatic, inappropriate responses of the brain. Competencies associated for social survival are trustworthiness, self-control, conscientiousness, adaptability and innovation (Goleman, 1995).

2. Motivation

Motivation is characterised by a passion or obsession to accomplish or achieve. People with this characteristic are noted for generally possessing an optimistic outlook on life and their ability to affect the future, including their self-confidence, their ability to view any failure as a temporary setback and their willingness to accept criticism and to learn from mistakes. Thus, motivation includes elements such as achievement, drive, commitment, initiative and optimism (Goleman, 1995). Optimism is believed to be a key determinate of motivation and performance outcomes (Rozell, Pettijohn & Parker, 2002).

3. Empathy

Empathy involves making an effort to understand and discern the emotions of the other person by seeing the situation from that person's perspectives. Empathy does not mean to please everyone. However, it means an awareness of what others feel and an ability to monitor the effect of one's own actions on others (Goleman, 1995). Empathy includes aspects such as understanding others, developing others, having a service orientation, leveraging diversity and possessing a keen political awareness (Rozell et. al., 2002).

4. Social Skills

Social skills encompass communication skills, interpersonal expertise and the ability to help others manage their emotions. Social skills include aspects such as effective communication, conflict management skills, leadership abilities, change management skills, relationship

management, collaboration and co-operation abilities and effective team membership capabilities. Emotional intelligence training, in the emotional intelligence elements, helps individuals to properly and effectively engage in these skills (Goleman, 1995). Moreover, Goleman (1995) suggests that these are human qualities that every person has access to, and it is merely a case of developing these skills and thus developing and increasing emotional intelligence (Hayward, 2005). Goleman (1995) subsequently developed the 137-item Emotional Intelligence Test which measures the five dimensions: self-awareness, self-regulation, motivation, empathy and social skills of emotional intelligence. This test can be used in a variety of contexts.

For the purposes of this research study, the mixed model approach to defining emotional intelligence is adopted, primarily because of the emotional intelligence instrument selected, the rater – version of the EQ-i as developed by Rahim and Minors (2003). This instrument also serves the purpose of this research. This model conceptualises emotional intelligence as the "…the capacity for organising our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (Goleman, 1998, p.317).

In summary, both the Salovey and Mayer and Goleman theories propose that an awareness and regulation of emotion at the individual and social level is important. In contrast to Goleman's model, a different mixed model of the emotional intelligence construct is presented by Bar-On (1997b). His conceptualisation of emotional intelligence is seen as a variety of traits and abilities related to the emotional and social knowledge that influence an individual's overall ability to effectively cope with environmental demands. His model can be viewed as a model of psychological well-being and adaptation and includes the following:

- The ability to be aware of, to understand and to express oneself;
- The ability to be aware of, to understand and relate to others;
- The ability to deal with strong emotions and control one's impulses; and
- The ability to adapt to change and to solve problems of a personal or social nature (Bar-On, 2000).

3.5.3.2 Bar-On's (1997) theory of emotional intelligence

Bar-On's (1997) model can be summarised according to five subtypes with respective subcomponents such as 1. interpersonal intelligence, 2. intrapersonal intelligence, 3. adaptability, 4. stress management and 5. general mood.

1. Intrapersonal

Individuals, who are well developed intrapersonally, feel good about themselves and are positive about their lives. They are also competent at expressing their feelings, are independent, strong and confident in expressing their ideas and beliefs. Intrapersonal intelligence represents abilities, capabilities, competencies such as self-awareness, assertiveness, self-regard, self-actualisation and independence and skills pertaining to the inner self (Gardener & Stough, 2002).

2. Interpersonal

Interpersonal intelligence is composed of empathy, interpersonal relationships and functioning and social responsibility (Gardener & Stough, 2002). Individuals who are well developed in this area are responsible, dependable and have well-developed social skills.

3. Adaptability

Adaptability includes how an individual is able to cope with environmental demands by effectively dealing with problematic situations, reality testing and flexibility (Gardener & Stough, 2002). Individuals who are well developed in this area are flexible, realistic, are effective at understanding problematic situations and at creating adequate solutions.

4. Stress management

Individuals in this component tend to be calmer, are rarely impulsive and are able to work under pressure. Thus, this emotional intelligence subtype, stress management includes stress tolerance

and impulse control (Gardener & Stough, 2002).

5. General mood

Lastly, individuals in this component tend to acquire the ability to enjoy life, are positive, cheerful, hopeful, and happy and are generally optimistic (Gardener & Stough, 2002).

Bar-On's (1997a) model presents the five components as developing over time, change throughout an individual's lifetime and can be improved through providing training. This model is a self-report measure that specifically measures emotionally and socially competent behaviour that estimates an individual's emotional and social intelligence as opposed to traditional personality traits or cognitive capacity (Bar-On, 2000). Bar-On (2000) developed a self-report emotional intelligence measure based on the model, the Emotional Quotient Inventory (EQ-i). This self-report measure is not the only method of assessment since its initial publication. This instrument has also been published as a 360-degree measure. Overall Bar-On's EQ-i seems to provide a valid and reliable estimate of an individual's ability to effectively cope with the pressures and demands of daily life (Bar-On, 2000).

Mayer (2001) is of the opinion that there are theoretical and utilisation differences between ability-based and mixed models of emotional intelligence. Ability-based emotional intelligence models define emotional intelligence as a set of abilities that facilitate the perception, expression, assimilation, understanding, and regulation of emotions, thereby promoting emotional and intellectual growth. In contrast, proponents of trait-based emotional intelligence as introduced by Bar-On (1997a) and Goleman (1995, 1998), define emotional intelligence as a diverse set of emotion and disposition related non-cognitive attributes. Furthermore despite the existence of the two distinct emotional intelligence models, all of the models aim to understand and measure the elements involved in the recognition and regulation of one's own emotions and the emotions of others (Goleman, 2001). All models concur in that they have and measure certain key components of emotional intelligence. Bar-On (1997a) believes that these models are of potential value when studying and developing an understanding of emotional intelligence.

In summary, three main models of emotional intelligence exist. The first model by Mayer and Salovey (1990) perceives emotional intelligence as a cognitive ability. Goleman (2001) contends that Salovey and Mayer's model (1990) is developmental as the complexity of emotional skills grows from the first branch to the fourth branch. Nonetheless, the mental aptitudes they describe seem to fit within the general structure of self-other recognition and regulation that is regarded as critical to the conceptualization of emotional intelligence (Matthews, Zeidner & Roberts, 2002). Mixed models of emotional intelligence as presented by Bar-On and Goleman regard emotional intelligence to consist of cognitive ability and personality factors which influence well-being. However, unlike Bar-On's (1997) model, Goleman's (1995) model focuses on how cognitive and personality factors determine workplace success. These models are summarised in Table 3.1.

Table 3.1: Abilities and mixed models

The ability and mixed theories divides Emotional Intelligence into four and five areas as depicted below.

ABILITY APPROACH		MIXED APPROACH
Mayer, Salovey & Caruso (2004)	Bar-On (1997)	Goleman (1995)
1. The ability of emotional awareness to perceive emotions accurately • Emotions in faces, music, and designs • Skills: Identifying one's own and others emotions, expressing one's emotions and discriminating the expression of emotion in others.	1. Intra-personal EQ • Emotional Self-Awareness, self-regard, self-actualization independence	1. Intra – emotional self-awareness • Accurate self-assessment, self-confidence
2. The ability to use emotions to facilitate thought • Accurately relating emotions to other basic sensations (e.g., colours, textures). • Using emotions to shift perspectives • Skills: Employing the emotions to aid in judgment, recognizing that mood swings can lead to a consideration of alternative viewpoints, and understanding that a shift in an emotional state and perspective can facilitate different kinds of problem-solving.	2. Interpersonal EQ • Empathy, interpersonal relationships, social responsibility	2. Self regulation • Self-control, trustworthiness, conscientiousness, adaptability, innovation
3. The ability to understand emotions and their meanings • Ability to analyze emotions in parts • Ability to understand likely transitions from one feeling to another • Ability to understand complex feelings in stories • Skills: Labelling and distinguishing between emotion, understanding complex mixtures of feelings and formulating rules about feelings allows an individual to understand emotions.	3. Adaptability EQ • Problem-solving, reality testing, flexibility	3. Motivation • Achievement drive, commitment, initiative, optimism
4. The ability to manage emotions • Ability to manage emotions in the self • Ability to manage emotions in others • Skill: Regulating emotions in others should lead to feelings of situational control	4. Stress management EQ • Stress tolerance, impulse control	4. Empathy • Understanding others, developing others, service orientation, leveraging diversity, political awareness
	5. General mood EQ • Happiness, optimism, team capabilities, collaboration and cooperation	5. Social skills • Influence, communication, conflict management, leadership, change catalyst, building bonds

Source: Ciarrochi, Forgas, and Mayer (2001)

3.6 Measures of Emotional Intelligence

Mayer (2001) states that existing assessment models and measures of emotional intelligence are characterized by the following criteria:

- The definition or conceptualization of emotional intelligence are based upon distinguishing between ability versus mixed models of emotional intelligence (Mayer et. al., 2000b), and
- The measurement approach followed by the instrument.

Mixed assessment models, also known as trait-based models are based on self-report (Petrides & Furnham, 2000; 2001). This model assesses aspects of personality and cognitive intelligence in addition to emotional intelligence. Whereas, the ability models are based on performance-based response format from which a correct answer is derived. This answer serves as the percentage of respondents who endorsed a particular option, to that of an absolute or definite result (Van Rooy, Viswesvaran & Pluta in Press, 2005).

The measurement approach refers to whether the measure in question is designed as a self-report questionnaire or as a performance test. A self-report questionnaire requires respondents to report their own levels of functioning (Kruger and Dunning, 1999) whereas a performance test requires respondents to elicit responses that can be evaluated against objective, predetermined scoring criteria. In either case, the emotionally intelligent response must be specified, but the principles for doing so are different. Performance testing requires criteria for rating responses that are more or less intelligent. Self-report assessment specifies, in advance the qualities of emotional intelligence, as written into the questionnaire items, and scoring simply depends on the match between self-report and the target qualities.

In essence, having to perform mental tasks illustrates an individual's capacities (performance measures), while self and other report designs measure beliefs about their capacities (Mayer & Salovey, 1993). Researchers believe self-report measures not only provide a less direct measure, but that these measures avoid the inherent reliability and scoring problems associated with performance measures (Roberts, Zeidner & Matthews, 2001). Furthermore, in terms of the emotional intelligence models, self and other report measures are used within the mixed models of emotional intelligence, while performance measures are utilized within an ability model of

emotional intelligence.

Popular methods for assessing emotional intelligence involve the use of self-report and performance based instruments. Matthews et. al., (2002) highlight differences between these instruments:

- Performance tests measure actual emotional intelligence whereas self-report measures perceived emotional intelligence,
- Performance tests are more time consuming than self-report measures,
- Self-report measures require a certain level of insight. Individuals may not have an accurate understanding of their own abilities (Brackett & Mayer, 2003).
- Performance measures are difficult to score, require more detailed instructions and greater training for the administration of the test than self-report measures,
- Self-report measures allow people to summarise their level of emotional intelligence in a few concise statements, whereas performance measures require a substantial number of observations before the emotional intelligence level can be ascertained with any degree of accuracy (Matthews et. al., 2002).

3.7 Research Studies

Emotional intelligence has been consistently compared to different constructs. These constructs include leadership, personality, leadership behaviour, stress, occupational stress and commitment and self-actualisation.

3.7.1 Emotional intelligence, Leadership and Leadership behaviour

Mandell and Pherwani (2003) found that the level of emotional intelligence as measured by Bar-On's EQ-i was significantly related to transformational leadership style (R =.50) when examining transformational leadership and emotional intelligence in 32 individuals in management positions. In terms of leadership behaviour, Coetzee and Schaap (2005) administered the MEIS and the Multifactor Leadership Questionnaire to a convenience sample of 100 managers working in various South African companies. The study found significant

correlations existed between managers' level of emotional intelligence, leadership behaviour and the outcomes of leadership. Significant positive correlations were found between transformational leadership and the full scale of emotional intelligence scores (r = 0.274). Transactional leadership (r = 0.213) correlated significantly with managing emotions. This result revealed that an individual's levels of emotional intelligence related significantly to effective and ineffective leadership in terms of leadership behaviour and the outcomes of leadership. This finding also supports the assumption of Caruso et. al., (2002) that effective leadership may have its roots in managing emotions. A leaders' emotional intelligence level determines whether or not he or she is able to instill trust and commitment, motivate followers to exert extra effort, which creates feelings of satisfaction once goals are reached.

3.7.2 Emotional Intelligence and Personality

Day, Therrien and Carroll (2005) conducted a study with a sample of 183 undergraduate Canadian university students. These students' emotional intelligence was measured by Bar-On's (1997) EQ-i and the NEO Five Factor Inventory (Costa and McCrae, 1992). The results found that all EQ-i subscales such as interpersonal skills, interpersonal functioning, adaptability, stress management, and general mood were significantly correlated with extraversion and conscientiousness (r = 0.27 to 0.50); neuroticism (r = -0.61 to -0.68); openness (r = 0.24); interpersonal functioning (r = 0.26) and agreeableness (r = 0.27 to 0.58).

3.7.3 Emotional Intelligence and Stress

A sample of 158 American university students was assessed with the MSCEIT (Mayer, Salovey and Caruso, 2002) and the Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983). The results revealed no relationship between the level of emotional intelligence and stress (r = -0.08) (Gohm, Corser & Dalsky, 2005).

3.7.4 Emotional Intelligence, Occupational Stress and Organisational Commitment

The Emotional Intelligence Questionnaire and the Organisational Stress Screening Tool (ASSET) were used to assess a sample of 212 professionals in a mental health institution. The results showed a negative correlation (r = -.59) between emotional intelligence and overall occupational stress. This finding indicates that professionals with high emotional intelligence suffer less stress in relation to their occupational environment. A positive correlation was found between emotional intelligence and organisational commitment (r = 0.46). This finding suggests that employees with high emotional intelligence scores tend to show increased levels of organizational commitment. This result may be due to opportunities provided to them and therefore being better equipped to identify and effectively use the opportunties for their own benefit, resulting in increased organisational commitment (Nikolaou & Tsaousis, 2002).

3.7.5 Emotional intelligence and self-actualisation

Goleman (1998) proposes that emotional intelligence (EI) leads to effective performance and increased organisational productivity. Similarly, Herbst (2003) contends that emotional intelligence and self-actualisation have a positive effect on the workplace. Emotionally intelligent and self-actualising employees show characteristics of effective intra- and interpersonal behaviour as well as constructive work-related attitudes and behaviour. Cooper and Sawaf (1997); Barnard and Herbst (2005) found when assessing Bar-On's EQ-i and The Personal Orientation Inventory on 71 South African mining employees, that self-actualisation correlates positively with interpersonal (r = 0.30), adaptability (r = 0.35) and stress tolerance (r = 0.30) on the EQ-i scales. This indicates that people with high emotional intelligence levels experience more career success, build stronger relationships and enjoy better health than those with low emotional intelligence. Self-actualisation behaviour seemed to be supported by a higher level of stress tolerance and impulse control.

The research results are summarised in Table 3.2.

Table 3.2: Research Dissertations (1998-2005)

Researcher: Year	Variables: Sample	Findings
Schutte, Malouff, Hall, Haagerty, Cooper, Golden & Dornheim (1998)	EI, psychological health and personality. Sample: University students , individuals form diverse community settings	EI scores were associated with less flat emotional affect, greater attention and clarity of feelings, greater optimism and less depression.
Parker, Taylor & Bagby (2001)	EI and alexithymia. Sample: Community members	Negative correlation between EQ-i and alexithymia. Indicating individuals' suffering from alexithymia is more likely to have low EI.
Ciarrochi, Deane & Anderson (2002)	EI, stress and mental health. Sample: Australian University students	High emotion regulation was associated with lower depression. Significant relationship between management of self emotion skills and depression.
Nikolaou & Tsaousis, (2002)	EI, occupational stress and organizational commitment	Positive correlation found between EI and organizational commitment. Professionals with high EI suffer less stress that is related to the occupational environment.
Mandell & Pherwani (2003)	EI and leadership. Sample: Individuals in management positions	EI significantly related to transformational leadership.
Bar-On (2005)	EI and subjective well-being. Sample: North American and Canadian individuals	Significant relationship exists between EI and SWB. Nearly 50% of SWB associated with EI.
Barnard and Herbst (2005)	EI and self-actualization. Sample: South African mining employees	Self-actualisation correlates positively with interpersonal, adaptability and stress tolerance EQ-i scales.

Coetzee & Schaap (2005)	EI, leadership behaviour. Sample: Managers form South African companies	Significant correlations exist between managers' level of EI, leadership behaviour and outcomes of leadership.
Day, Therrin & Carroll (2005)	EI and personality; Sample: Undergraduate Canadian University students	EQ-i subscales significantly correlated with extraversion, conscientiousness, neuroticism, openness, interpersonal functioning and agreeableness.
Gohm, Corser & Dalsky (2005)	EI and stress. Sample: University students	EI not associated with stress

A review of the literature illustrated the growing frequency of emotional intelligence among different samples. With emotional intelligence having the potential to influence many significant aspects of human existence, there is more important on researchers to study emotional intelligence and determine how it can be best assessed and utilised. This premise highlights the growing awareness and application of emotional intelligence to various contexts (Van Rooy et. al., 2005).

3.8 Issues and common Misunderstandings in Emotional Intelligence

The influence of emotional intelligence on popular culture and the academic community has been rapid and widespread. This has stimulated a number of research initiatives across a wide range of domains within psychology. However, the concept of emotional intelligence has inevitably created a gap between what is known and what needs to be known. This has led to controversy and debate among researchers and practitioners who are eager to understand and apply the principles, associated with emotional intelligence. Kuhn (1970) claims that scientists' attempt to deal with data in a systematic way by being guided by deeply held theories. This furthermore, has led to the formation of distinct research paradigms where each paradigm is characterised by its own unique history, methods and assumptions for dealing with its focal topic. In this sense, the emotional intelligence paradigm is no different than other paradigms within psychology. Kuhn (1970) further suggests that such a scientific paradigm becomes an

object for further articulation and specification under new and more stringent conditions. The current debates and vigorous research efforts of emotional intelligence suggests that the emotional intelligence paradigm would seem to have reached a state of scientific maturity (Goleman, 2001). As paradigms mature, specific theories within the paradigm begin to emerge and differentiate, as has occurred since the first formal formulation of an emotional intelligence theory such as the one developed by Salovey and Mayer (1990).

A limitation of self-report emotional intelligence measures is that individuals are required to make judgments about their own skills. These judgments can be unreliable or biased (Ciarrochi et. al., 2002). Roberts et. al., (2001) emphasise that self-report methods are said to assess affect-related skills where people may be subjected to social desirability or may even reflect the self-identity rather than actual skills. In addition, the issue of separating abilities related to cognitive intelligence from abilities, traits and competencies in relation to emotional intelligence remains a complex one; as all definitions of emotional intelligence represents a combination of cognitive and emotional abilities (Cherniss, 2001). Resultantly, as a consequence to theoretical and conceptual frameworks, interventions associated with emotional intelligence were developed as a means of developing and educating people.

3.9 EI Interventions

Since the widespread interest in the emotional intelligence construct, many developmental and training initiatives have been designed to educate people about the relevance of emotional intelligence in the workplace, to assess their relative strengths and weaknesses and to provide a framework to develop and enhance their ability to interact with others with greater emotional intelligence (Boyatzis, 1999).

The application of emotional intelligence usefulness has been documented in the workplace. Cherniss (2000, p.42) highlights four main reasons that can be seen as benefits why the workplace would be a logical setting for evaluating and improving emotional intelligence competencies:

1. "Emotional intelligence competencies are critical for success in most jobs;
2. Many adults enter the workplace without the competencies necessary to succeed or excel at their job;
3. Employers have established means and motivation for providing emotional intelligence training; and
4. Most adults spend the majority of their working hours at work."

The cost-effectiveness of providing emotional intelligence training in the workplace has reported the economic value of living staff based on emotional intelligence. For example, The Government Accounting Office (1998) found when selecting programme recruiters using Bar-On's EQ-I, individuals, who scored the highest in emotional intelligence as recruiters, increased their ability to select successful recruiters. As a result profitability increased by threefold and saved $3 million annually. Boyatzis (1999) found similar results within a multinational consulting company, where partners who scored above the median on nine or more competencies delivered $1.2 million more profit than did other partners.

Furthermore, Cherniss and Goleman (1998) estimated that when training guidelines established to increase emotional intelligence in the workplace were not followed, industry alone in the United States of America (U.S.A) lost between $5.6 and $16.8 billion a year. Thus, based on the findings, the impact is higher on implementing and providing emotional intelligence training programmes than companies not implementing emotional intelligence programmes as they received less of an impact and consequently lost more money.

Emotional intelligence training programmes can provide training in several different areas within an organization namely, management training, communication and empathy training, conflict resolution, stress management training, self-management training and training to unemployed workers (Cherniss, 2000).

3.9.1 EI Training Programmes

Many emotional intelligence programmes and initiatives have been developed for use in organisational settings in an effort to improve the emotional intelligence of staff and management (Cherniss, 2000). The results of three programmes are reviewed as follows:

3.9.1.1 Emotional Competence Training Program

The Emotional Competence Training Program aims to increase a person's ability to effectively cope with the emotions encountered in the workplace. This program also aims to achieve this by increasing the emotional self-awareness, self-control, empathy, communication, conflict management and developing competency in others. The effectiveness of this program was measured in a study of 33 advisors at American Express. Findings indicated a 13.5% increase on a measure of optimism and coping skills compared to a 9% increase in a control group. Furthermore, the study also showed an increase in insurance sales revenue of 20% greater than the control group (AMEX Program, 2003).

3.9.1.2 Customized Leadership Development Program

The Customized Leadership Development Program is an emotional intelligence program which allows managers to identify areas in which they require behaviour change while also giving them opportunities to practice these changes in real life situations. Participants in these programs have shown a 70% improvement in emotional intelligence competencies one and two years after the program. Five to seven years after completion, changes have found to sustain at 50% improvement. Whereas compared to typical management programs which yield a 10% improvement only in three to eight months after training (Goleman, Boyatzis & McKee, 2002).

3.9.1.3 Mastering Emotional Intelligence Program (MEI)

The MEI Program developed by Goleman and Boyatzis () aims to teach participants how to identify and address emotional intelligence issues in the workplace while supporting the

development of emotional intelligence competencies. The effectiveness of this program was measured on two different samples: One sample was a group of Brazilian managers from a large consumer retail organisation and another group was an American sample of government accountants. Pre -and-post measures 14 months apart, using the Emotional Competence Inventory (ECI) (Boyatzis, Goleman & Rhee, 1999) on the two samples, found that scores on the ECI were 11% higher post program for the Brazilian sample compared to the 24% higher for the American sample (Sala, 2001). The findings show that the effectiveness of emotional intelligence programs over an effective time period tends to increase the emotional intelligence of participants.

Theoretical conceptualizations, models and research findings are clear about the importance and relevance relating to emotional intelligence as a construct. Additionally, over a period of time, practioners have developed interventions, in the form of training, to educate and develop staff and organizations. While emotional intelligence can be considered to be a positive construct, theoretical underpinnings, as discussed in Chapter 2, indicate burnout to be a negative construct. Would these constructs be on different ends of a continuum?

3.10 Emotional Intelligence and Burnout

Over the past few decades, the burnout phenomenon has received increasing attention and is regarded as a serious type of work-related stress. In addition, the concept of emotional intelligence has considered the role of emotion-related competencies that is necessary for optimal workplace functioning. Cipriano (2002) states that it is possible that burnout and emotional intelligence represents the end of a continuum where emotional intelligence is situated at the high end of successful adaptation and burnout represents the accrued effects of a failure in an attempt to adapt within a caustic environment. Emotional intelligence may represent the competencies necessary that an individual can use to protect or buffer against the negative effects of workplace stressors. This buffer may also decrease the likelihood of an individual experiencing and suffering from burnout. Emotional intelligence has been identified as a moderator that could possibly buffer against the effects of burnout. Baron and Kenny (1986) define a moderator as a variable that affects the direction or strength of the relationship between

an independent or predictor variable and a dependent or criterion variable.

Burnout is regarded as a form of impairment and type of work stress related to not only care giving or the helping professions, but employees in almost any occupation can develop burnout (Schaufeli & Enzmann, 1998). The concept of emotional intelligence has been considered necessary for optimal workplace functioning (Cipriano, 2002). Neither constructs, represent new ideas, however, each construct has drawn attention from multiple disciplines including academic (Montgomery et. al., 2005), professional and organisational psychology (Mostert & Joubert, 2005; Cipriano, 2002).

The importance of burnout is suggested and well documented in literature by its relationships with organisational outcomes such as absenteeism; turnover; work satisfaction; drug and alcohol abuse; physical and mental disorders and the disintegration of family and social relationships (Maslach & Jackson, 1981). Emotional exhaustion is reached when employees' emotional resources become depleted, and they no longer feel able to give of themselves at a psychological level (Maslach, 1982). Emotional exhaustion was selected as the focus point for the following reasons:

1) There appears a general consensus in literature that emotional exhaustion is the core dimension of burnout (Maslach, 1982b);
2) Emotional exhaustion may be conceptualised as the first stage of burnout and therefore, provides a critical point for intervention.
3) Emotional exhaustion is chronic and intensely affective in nature.
4) Emotional exhaustion is applicable to most occupations other than human services and provides a critical point for managerial intervention (Gaines &Jermier, 1983).

During the past few decades, the quality of work life has moved from the periphery to the mainstream of Psychology research. Stress, burnout and emotional intelligence have been key concepts guiding numerous research studies concerned with aspects of employees' health and welfare. However, little is known about burnout with emotional intelligence in organisations. This stems from the fact that many employees in today's society suffer from work-related mental

problems. As within the context of the workplace, businesses consider the employees as being the most valuable resources of their company. Schaufeli (2003) regards employee burnout as a potentially economic loss for organisations. For this reason the prevention of burnout becomes a focus point for organisational consultants and researchers for alerting management and pointing out the necessity to prevent burnout. They believe that preventing burnout increases employer and employee well-being and profitability. Bar-On (2003) agrees that educating people to be socially and emotionally intelligent are regarded as a valuable commodity in the corporate world that will not only increase individual performance but also overall organisational productivity. These constructs, emotional intelligence and burnout, both represent elements of human interaction. Elements such as emotional intelligence may represent competencies that can protect the individual (employee) from the negative effects of workplace stressors (Gulle et. al., (1998), which may decrease the likelihood that the individual would suffer burnout. Thus, the focus is on determining the extent to which emotional intelligence and burnout levels serve as an indication of depicting the situation of officers in the SAPS. Results can be used for determining proactive development of adaptive competencies for optimal functioning in the workplace. Furthermore, the incorporation of these constructs is important for two reasons: *Firstly*, given the negative states associated with burnout, it is valuable to gain insight into important information that can be gathered regarding the required emotional competencies that promote optimal functioning by examining the nature of burnout in various settings. Understanding burnout may include customised competence based training and organisational assessments to increase mental health. *Secondly*, the literature concerning emotional intelligence is likely to hold valuable information regarding potential factors that are calming, protective or able to attenuate the condition of burnout.

Burnout studies in South Africa have been limited by poorly designed and controlled studies and a lack of sophisticated statistical analysis (Rothmann, 2003). Reliable and valid instruments are required for the measurement of burnout. This requirement is necessary to conduct empirical research and for the purpose of individual assessment. Burnout is said to affect a person's life outside of the professional arena. The stressors he or she may encounter may be compounded by occupational stress. Thus, an officer who is experiencing compound occupational stress may be at an increased risk for burnout. Stress and burnout are serious concerns for those in the law

enforcement profession. Officers, who experience burnout, are more likely to use unnecessary sick leave, have lower productivity, have higher job turnover, and so on. Furthermore, they may have developed a diminished capacity to engage in empathetic relationships with others (Demerouti et. al., 2000). Unless the police or law enforcement climate contributes to officers' lessening stress and burnout levels, the current situation will only worsen over time.

The current study examines burnout among officers because of the prevalence of stress within this occupation and the subsequent links to burnout (Brown & Campbell, 1994). Major causes of burnout within law enforcement occupations include physical and psychological dangers, administrative and professional pressure, and limited support which are not usually counterbalanced by positive, emotionally pleasing interactions (Connizzo & Liu, 1995).

Moreover few studies in law enforcement have investigated burnout at an employee-managerial or supervisory level. This lack of research limits our understanding about emotional exhaustion, at these critical positions or levels within an organisation. Employees are important as they perform duties and responsibilities inline with their organisations objectives and goals. Burnout has been associated with negative outcomes for organisations as the quality of services supplied by organisations deteriorates as personnel suffering from burnout increases (Maslach & Jackson, 1981). Individuals suffering from burnout may be regarded as incompetent (Shirom, 1989) rather than recognising that they are suffering from excessive stimulation where they have insufficient means of regulating its existence (Hobfoll & Freedy, 1993). Densten's (2001) study confirms that emotional exhaustion has two aspects or factors, namely psychological and somatic strain. Schaufeli and Van Dierendonck (1993) suggest that these factors may overlap with non-physical and mental symptoms. Nevertheless, this study attempts to clarify and further advance the understanding of the level of burnout among officers in law enforcement.

Giardini and Frese (2006) assume that police work is particularly stressful because of the severe sense of psychological and physiological problems experienced by police employees. These problems are regarded as consequences of work-related problems. In police work, emotional hazards are present in the occupation itself. Gulle et. al., (1998); Jones and Kagee (2005) highlight some of the hazards where police officers have a constant exposure to society's

interpersonal violence; sub-service to an ambivalent, watchful public; and an extreme psychological separation from the policed. For police members operating under these pressures, sources of emotional exhaustion may exist in administrative practices and the context of work. The context of work consists of the interpersonal demands and physical hazards resulting from work performance.

Additionally, police officers, on a daily basis,deal with emotional situations that involve the extremes of human conditions, ranging from public attacks to members committing suicide. Officers are also bombarded with the beauracraies of the SAPS. The demands of the SAPS require officers to adapt and change. All of these factors produce stress, which may lead to a protective or prolonged adaptation to stress that is known as burnout. The result of burnout is a lack of emotional reserve required to deal with emotionally charged situations (Thomas, 1998). In addition officers in their early police practice may be at risk of burnout than their more experienced members. If emotional intelligence has a negative relationship with burnout, it is essential that officers in early practice develop or enhance their emotional intelligence, as high emotional intelligence would be regarded as a resistance to burnout. Officers are considered to be at high risk or burnout due to the nature of police work. Furthermore it could be assumed that officers with high emotional intelligence, having the ability to perceive, use, understand and manage emotions would be less likely to experience burnout (Farmer, 2004).

3.11 What EI is and why it also matters in the police

Psychologists and researchers have been making efforts to advance knowledge of applying emotional intelligence to education (Adeyemo, 2004), stress (Slaski & Cartwright, 2002), burnout (Ricca, 2003) and policing (Burnette, 2006). Ricca (2003) suggests that emotional intelligence contributes to the reduction of burnout and the controlling of stress in police officers respectively. Emotionally intelligent officers would be capable of responding appropriately to critical situations that are highly charged and extremely volatile (Mostert & Joubert, 2005; Connizzo & Liu, 1995). Burnette (2006) also highlights that emotional intelligent police officers may have an added value of being more able to resist the pressures and the burden of stress. Emotionally intelligent police officers would be capable of resolving stressful emotions in their

professional and personal lives and thereby limit facing potential dilemmas of poor health and in, subsequently, experiencing burnout. Prati (2004) emphasises that emotional intelligence is fast becoming a legitimate area of research for organisational science theorists.

The relevance of emotional intelligence to the police organisation cannot be over emphasised. Since emotional intelligence is seen to be related to interpersonal relationships, it could also become an important development tool in the police force, since police work also involves or is about human contacts. Not many emotional intelligence studies have been conducted on the police but the few available studies indicate significant results with regard to the relationship between emotional intelligence and policing. Aremu and Tejumola (2005) reported that Nigerian police are not emotionally intelligent; Bellany and Bellany (2003) contend that emotional intelligence would be considered critical to the management of police work and Donna (2003) typify that emotional intelligence has implications for selection and training in the police force. Burnette (2006) states that failing to train and supervise police officers may result in civil actions brought against supervisors, departments and their governing bodies (Hess & Wrobleski, 1997). As a result of these actions, it is advisable for the police to look at tools and resources which could assist in properly hiring, training and supervising their police officers. Burnette (2006) asserts that although little research exists regarding emotional intelligence and the police, it appears that emotional intelligence could provide police with a new tool for the selection and training of police officers in order for them to deal with being constantly faced with circumstances involving volatile emotions and conflict. Being capable of appraising one's emotions, assessing emotions of others, and responding appropriately in order to reduce the necessity of force, is regarded as an attribute that all police personnel should embrace. Thus, the emotionally intelligent officer could aid in the reduction of consequences that are associated with police work such as burnout.

3.11.1 The function of Emotional Intelligence

Burnout, being a possible police problem, could be tackled with emotional intelligence. Understandably, individuals who are emotionally intelligent are less prone to experience burnout. In spite of the SAPS' aim to serve and protect, there is still much on their part to fulfill

as that of a pro-active service. This is because the police find it difficult to manage their own emotions, and also fail to understand feelings of members of the public. This has negatively affected the image of the police force. The police image could then be enhanced through using social (Aremu & Adeyoju, 1998; Ameru, 2005) and problem-solving skills (Ameru, 2000; 2005). Both, social and problem-solving skills are part of the components of emotional intelligence. Thus, emotional intelligence as a psychological programme could be used to reduce burnout in the police. The function of emotional intelligence skills to ensure the police adopt skills to deal with burnout, is therefore significant.

This study suggests important implications for the prevention of burnout. Moreover, the results of this study may identify certain emotionally intelligent individual characteristics that may promote or inhibit burnout. Personal competencies such as social skills have been the focus of emotional intelligence and positive psychology literature as areas of study and development. Although there is a vast amounts of literature on emotional intelligence, there is a gap in the literature concerning the effects of emotional intelligence on burnout levels in officers (Stubbs, 2005). Ricca (2003) found that the more competent police officers are in being aware of their emotions, understanding and managing their emotions, the less frequently they would experience burnout. It would therefore appear intuitive to determine the emotional intelligence levels of officers as a means to determine whether emotional intelligence levels of current officers reduce burnout, - reduce persistent and sometimes pervasive problems and experiences associated with police work (Burnette, 2006). Bennett and Hess (2004) contend that assessing and analysing recruits within law enforcement aids in finding the ideal officer who is suited and able to handle the demands of law enforcement. In summary, for the SAPS to realise policing excellence and integrity, burnout in its entirety must be dealt with within in all ranks of the SAPS organisation. This, however, calls for major transformation, which can only be achieved through emotional intelligence education in order to excel at crime fighting and pro-social policing.

3.12 Summary

In this section the emotional intelligence construct was discussed and described in terms of its historical development, description and core dimensions. Various conceptualisations, theoretical

models and problems relating to the construct were discussed. Lastly, reference was made to various research studies and interventions. The following chapter will provide a detailed overview of the methodological methods and processes followed.

Chapter 4

Research Methodology

4.1 Introduction

The purpose of the study was to investigate the relationship between emotional intelligence and burnout levels of police officers of the SAPS in the Western Cape. The preceding chapters have reviewed the literature pertaining to background in law enforcement specifically the SAPS and literature on emotional intelligence and burnout. This chapter describes the research methodology used in the study. It outlines how the study was designed and implemented. The hypotheses, research design, population and sample size, data collection instruments and procedures used in the study are presented. A description of the data analysis and statistical techniques utilised in this study is also provided.

4.2 Rationale

For many service jobs emotion is an integral part of the task. Giardini and Frese (2006) argue that emotion work is a source of work stress and that it can have detrimental effects on service employees' psychological and physiological systems. In comparison with other occupations, police work has been regarded as a high stressful occupation (Mostert & Joubert, 2005). This occupation is also true for police officers in South Africa.

The SAPS has also undergone tremendous social and transformational change since 1994. Because of the transformation and stressful aspects of policing, police officers may experience a variety of symptoms and reactions. These include absenteeism, low morale, emotional burnout, frustration, depression, anger, ulcers and headaches (Burke, 1983). Results also indicate that the way in which the South African police organisation operates such as the SAPS creates additional stress to the inherent pressure already existing as a result of the nature of police work (Gulle et. al., 1998). In contrast, burnout may result as a final stage of breakdown due to prolonged stress (Farber, 1983 cited Levert, et. al., 2000). These concerns play a particular role in the work of a

police officer as they are more likely to experience burnout due to the nature of their work.

4.3 Problem Statement

South Africa has undergone socio-economic and political turmoil for the past three decades that is characterised by high levels of crime and violence (Paton & Violanti, 1999). This contributes to police officers' experiencing and being exposed to a variety of duty related stressors. Emotional intelligence may possibly become an important factor for use in evaluating law enforcement officers due the nature of their work. Bar-On (1997a) identified a stress resistance (SR) component of emotional intelligence that would have a direct bearing on law enforcement supervisors' and officers' abilities to function effectively and carry out the duties of their respective positions. Research studies addressing the role of emotional intelligence in law enforcement are limited in South Africa. Thus, due to the lack of empirical studies regarding this subject, researchers and practitioners are limited in their ability to consider the influence of emotional intelligence as a means of assessing performance, hiring, promoting and training law enforcement personnel. Thus, the results of this research may identify the need to identify emotional intelligence competencies in prospective candidates for employment in police work.

However, due to the lack of inquiry and literature published regarding the relationship between a law enforcement officer's emotional intelligence and burnout levels, it appears that this research could be directed towards providing law enforcement, specifically the SAPS, an insight into their levels using certain tools that will assist them in screening for hiring the best candidates as well as enhancing their officers' abilities to function more effectively within their respective communities while performing their police functions. This leads to the question:

Do police officers have the skills needed to develop and maintain their own emotional balance to deal with their stressful occupation?

It is therefore important, for the researcher to believe, to investigate the relationship between burnout and emotional intelligence levels of the South African Police officers. This also serves as the purpose of the study.

The problem that exists was to know what the current and future employed emotional intelligence abilities of police officers are, in dealing with and being exposed to the stressful hands-on police work. Subsequently,

- To what extent does the emotional intelligence ability play a role in the burnout levels?

Thus, the purpose of the present study was to compare levels of emotional intelligence with burnout among employees (officers) within the SAPS organisation. This was also done to fill the gap in police burnout and emotional intelligence research by determining the burnout and emotional intelligence levels among police officers including how they perceived the emotional intelligence levels of their immediate supervisors. Therefore, the aim of this study was to explore the relationships between emotional intelligence and burnout. It was thus hypothesised that,

4.4 Hypotheses

Bless and Higson-Smith (2000) state that hypotheses are research problems. Hypotheses are questions about the nature of the relationship between variables and become tentative, concrete and testable answers to such problems. They are predictions that the researcher holds about the relationship between variables.

The central hypotheses for this research are as follows:

H1: There is a statistically significant correlation between emotional intelligence and burnout levels of police officers.

H2: There is a statistically significant difference between police officers with high and low emotional intelligence levels in terms of their burnout.

H3: There is a statistically significant correlation between emotional intelligence of the officer and burnout.

H4: There is a statistically significant correlation between the emotional intelligence of the manager and burnout.

Furthermore, the research model in Figure 4.1 provides an indication of the constructs and the relationships between the constructs which have been explored within this study.

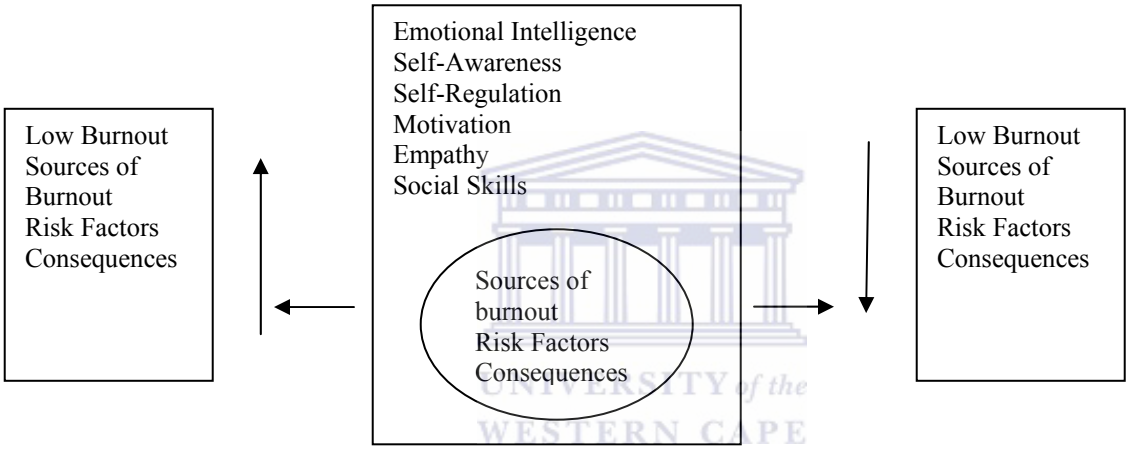

Figure 4.1: Research Model of the Burnout and Emotional Intelligence Process

4.5 Research Design

A survey research design provides a quantitative or a numerical description of trends, attitudes and opinions by studying a sample of that population. The researcher is able to generalize and/or make certain inferences/claims about the population (Babbie, 1990).

Correlational studies are used to make predictions and study the relationship between variables when there is no manipulation of the independent variables. Although correlational studies do not prove causation, it is useful in developing an understanding of patterns and relationships among variables. A correlational study was utilised for this current research study as an effective

way of analysing data and understanding relationships within an identified subject area. (Gall, Gall, Borg & Borg, 2002)

4.5.1 Research variables

The dependent variable was burnout and the independent variable was emotional intelligence. The objective of this research was to determine whether there is a relationship between EI (independent variable) and burnout (dependent variable) of police officers.

4.5.2 Population and sample

A population is defined as the entire group of people, events or things of interest that the researcher wishes to investigate (Sekeran, 2001). Since the SAPS functional operations are organised in a team structure, this necessitates increased interpersonal interaction between staff, police officers' work and their environment. Due to the nature of their work they are consequently being faced with emotional demands. Therefore the police officers are regarded as an ideal population for the study of EI and burnout.

A sample was defined as the subgroup of the target population that the researcher plans to study for generalising about the target population (Creswell, 2005). The sample of police officers was studied in an effort to understand the population from which it was drawn. As such, the researcher was interested in describing some facet of the population (Powers, Meenagham & Toomey, 1985).

Theoretically, to select and identify and to study the entire population is problematic. Although a more accurate picture may have been obtained using the population, it is prohibitive due to time and cost. Thus, selecting a sample from the population, time, money and research efforts can be streamlined that will produce better quality research. It may be that the population is too large to study or the researcher may not have the sufficient time or resources to do the job. As a result, it would be possible to study a portion of the population, in this case a sample (Powers et. al, 1985).

A probability simple random sample was selected of police officers using the following steps:

- A list of police units employing officers was obtained.
- All units were situated in serious violent crime areas in the metropole areas of the Western Cape. This list was obtained from the SAPS databases.
- A list of all employed police officers employed from the units was obtained.
- Police officers had to work at least a minimum of a year as an officer within the serious violent crime area. This was done to ensure that officers, selected as part of the sample, had had exposure within a serious violent crime area as it was assumed that being previously exposed to the same environment would more than likely induce stress related responses which over time may lead to burnout.
- Serious violent crime areas were divided into previously West and East Metropole areas. The West Metropole area was the focus of the study as crime seemed quite high in this area.
- These police units are grouped together to form certain clusters. The sample selected was from these clusters. This was due to the nature of police operations. This was also done to ensure that every officer had an equal chance of being selected (Jackson, 2003).This could be depicted as follows:

The sample of a particular size has the same probability of being the sample chosen. Samples drawn from the police units were according to the following steps:

- Police units A, B and C
- Police units A, B and D
- Police units B, C and D
- Police units A, C and D

Lastly, each officer had an equal probability of being selected. Less desirable is a convenience, non-probability sample in which the respondents are chosen based on their convenience and availability (Babbie, 1990). With a simple random sample from a population provides the ability to generalize to the population (Creswell, 2003).

Thus, a simple random sample of 140 police officers form the population of police officials, in the Western Cape (West metropole areas) irrespective of sex, race and gender was selected. A list of employed functional police officers from the metropole police stations in the Western Cape was obtained. The areas of the identified police stations are known to be characterised by serious violent crimes. This ensures that the sample selected would have been exposed to the same working environment. Employed police officers at police stations were randomly selected and the total employed police officers amounted to 238 of which 140 were selected. Sekeran (2001) regards this as acceptable.

4.5.3 Unit of analysis

The focus of this study was on the police officers. The individual officer will have two roles namely, being a SAPS employee and that of a respondent when completing research measuring instruments.

4.6 Results of the sample

4.6.1 Sample Population

A total of 108 research packets were received, representing a 77% response rate from the officers who accepted to voluntarily participate in the study. The participants also signed an informed consent form (note Appendix A). Upon receipt, each research packet was assigned a code by the researcher to maintain anonymity, to facilitate data entry and statistical analysis. Section 10.1 and 10.2 of the Biographical section of the returned research packets were eliminated from the sample prior to statistical analysis. None of the packets were eliminated as respondents answered most of the statements in the research packets. As a result, a total of 108 packets, representing a 77% inclusion from those who received the packets and signed an informed consent form, were then accepted as the final sample population. Note that 1 officer refused to answer the question for qualification and 2 officers for years in the job. Thus, we require another category for missing

data since all cases must be assigned to a category (Rule of inclusiveness) (Rose & Sullivan, 1993).

This could be depicted in the following table.

Table 4.1: Sample Population

	Rank	Gender	Race	Language	Age	Qualification	Status	Years in Job	Level in Job
	108	108	108	108	108	107	108	106	108
Missing	0	0	0	0	0	1	0	2	0

4.6.2 Biographical Data

Respondents were asked to answer a number of demographic questions as part of the study: gender, race, language, age, qualification, status, years in job and the level of their current position. The biographical section also included an option where respondents were required to indicate the extent and amount of support received from various stakeholders and indicate the amount of easy accessibility of support received from these stakeholders. The biographical data are presented as follows:

4.6.3 Gender distribution of the sample

Table 4.2: Illustrates the gender distribution of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	89	82.4	82.4	82.4
Female	19	17.6	17.6	100.0
Total	108	100.0		

Of the 108 responses, 89 (82.4%) comprised of male and 19 (17.6%) of female respondents. The results in Table 4.2 show that males participated more readily in this study than their female co-workers. While it has been traditionally viewed that females are more aware and accepting of their emotional functioning than males, and were thus more likely to participate in a study focussing on measuring their emotional intelligence, the current results presented in Table 4.2 are contrary to the traditional view. A possible reason for this could be that males showed more interest in the research topic than their female co-workers. Another reason could be that more males than females are employed at the selected police stations.

4.6.4 Age distribution of the sample

Table 4.3: Illustrates the age distribution of respondents

Age	Frequency	Percent	Valid Percent	Cumulative Percent
Under 20	12	11.1	11.1	11.1
25-29	45	41.7	41.7	52.8
30-34	44	40.7	40.7	93.5
35-39	6	5.6	5.6	99.1
40-44	1	.9	.9	100.0
Total	108	100.0	100.0	

Age of 108 specific demographic data reflected the aging officers' population: 12 respondents (11.1%) were under 20 years of age; 45 respondents (41.7%) were between 25-29 years of age; 50 officers (46.3%) were in their 30's, 1 respondent (0.9%) was in the age 40's group. This distribution implies that the greatest portion of the sample 89 officers (82.4%) was between ages of 25 and 39 years of age. The remaining 17.6% is made up of officers between the ages of under 20 years, and in their 40's. The breakdown of the age distribution reflects the SAPS workforce of officers as many are at the start of their policing career.

4.6.5 Distribution: Years in job

Table 4.4: Illustrates the years in job distribution of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 1 year	**1**	**.9**	**.9**	**.9**
1-4	**60**	**55.6**	**56.6**	**57.5**
5-8	**41**	**38.0**	**38.7**	**96.2**
9-12	**1**	**.9**	**.9**	**97.2**
13-15	**2**	**1.9**	**1.9**	**99.1**
16+	**1**	**.9**	**.9**	**100.0**
Total	**106**	**98.1**	**100.0**	
Missing System	**2**	**1.9**		
Total	**108**	**100.0**		

Table 4.4 shows that only 1 respondent (.9%) had only been employed at the SAPS for less than one year. However, 60 respondents (55.6%) had been employed for 4 years, with 41 (38.0%) respondents being employed between 5and 8 years. Four officers (3.7%) were employed for between 9-15 years and 1 officer had indicated employability for more than 16 years in the capacity as a officer.

Of all the respondents, 106 (98.1%) are employed as officers, while 2 officers (1.9%) refused to answer the question. However another category for missing data was assigned since all cases must be assigned to a category (Rule of inclusiveness) (Rose & Sullivan, 1993). Thus, the length of service distribution reports results for 108 officers.

4.6.6 Rank distribution of the sample

Table 4.5: Illustrates the rank distribution of respondents

Rank	Frequency	Percent	Valid Percent	Cumulative Percent
Officer	107	99.1	99.1	99.1
Other	1	.9	.9	100.0
Total	108	100.0	100.0	

Of all the respondents, 107 (99.1%) are employed as officers, while 1 officer (0.9%) refused to answer the question. However another category for missing data was assigned since all cases must be assigned to a category (Rule of inclusiveness) (Rose & Sullivan, 1993). Thus, the rank distribution reports results for 108 officers.

4.6.7 Race distribution of the sample

Table 4.6: Illustrates the race distribution of respondents

Race	Frequency	Percent	Valid Percent	Cumulative Percent
White	7	6.5	6.5	6.5
Black	32	29.6	29.6	36.1
Coloured	67	62.0	62.0	98.1
Other	2	1.9	1.9	100.0
Total	108	100.0	100.0	

The race distribution reported that 7 officers (6.5%) were white, while, 32 (29.6%) were black, Sixty-seven (62.0%) officers were coloured and, 2 (1.9%) officers indicated they belonged in the category of "other" race.

4.6.8 Language distribution of the sample

Table 4.7: Illustrates the language distribution of respondents

Language	Frequency	Percent	Valid Percent	Cumulative Percent
Afrikaans	64	59.3	59.3	59.3
English	10	9.3	9.3	68.5
Sesotho	1	.9	.9	69.4
Setswana	2	1.9	1.9	71.3
isiXhosa	29	26.9	26.9	98.1
Other	2	1.9	1.9	100.0
Total	108	100.0	100.0	

The SAPS is known to have a diverse workforce. Sixty-four (59.3%) of the respondents selected Afrikaans as their primary language spoken, 11 (9.3%) respondents were English, and 1 (%.9) respondent selected Sesotho the primary language spoken. Two (1.9%) officers selected Setswana, 29 (26.9%) selected isiXhosa as their primary spoken language and only 2 (1.9%) officers indicated that they spoke another language.

4.6.9 Qualification distribution of the sample

Table 4.8: Illustrates the qualification distribution of respondents

Education Levels	Frequency	Percent	Valid Percent	Cumulative Percent
Grade 10	6	5.6	5.6	5.6
Grade 12	89	82.4	83.2	88.8
College Diploma	8	7.4	7.5	96.3
Technikon diploma/degree	3	2.8	2.8	99.1
University degree	1	.9	.9	100.0
Total	107	99.1	100.0	
Missing System	1	.9		
Total	108	100.0		

The majority of the respondents, 89 (82.4%) officers reported that their basic education was obtaining their grade 12. One (.9%) respondent indicated that the highest qualification was a

university degree. The remaining 6 (5.6%) respondents had a grade 10 qualification and 8 officers (7.4 %) indicated that they obtained a college diploma. However, the results suggest a large difference in officers reporting an attainment of the highest qualification (.9%), a university degree, and a grade 12 (82.4%) qualification. This could be due to the fact that Grade 12 is a basic education requirement for joining the SAPS.

4.6.10 Status distribution of the sample

Table 4.9: Illustrates the status distribution of respondents

Marital Status	Frequency	Percent	Valid Percent	Cumulative Percent
Single	66	61.1	61.1	61.1
Married	40	37.0	37.0	98.1
Divorced	1	.9	.9	99.1
Separated	1	.9	.9	100.0
Total	108	100.0	100.0	

Sixty-six (61.1%) respondents indicated that they were single, 40 (37.0%) indicated that they are married, 1 officer (.9%) was divorced and, 1 officer (.9%) was separated.

4.6.11 Level of Job distribution of the sample

Table 4.10: Illustrates the level of job distribution of respondents

Level of job	Frequency	Percent	Valid Percent	Cumulative Percent
Officer	105	97.2	97.2	97.2
Team Leader	1	.9	.9	98.1
Other	2	1.9	1.9	100.0
Total	108	100.0	100.0	

The majority of officers 105 (97.2%) indicated that they do police work in the capacity of an officer. The others (2.8%) indicated that although they work as an officer, they have other leadership roles as well.

4.7 Data Collection

This study was conducted with the assistance of field workers, at the selected stations, who worked in the SAPS. A letter requesting permission to conduct the study was sent to the relevant representative at the identified station. This representative was the stations commissioner. This was also followed with a telephone call following which permission was granted in October 2007.

Data collection was through the use of self-report questionnaires to assess the emotional intelligence and burnout levels of police officers. Participation was entirely voluntary for both the fieldworkers and officers. All police officers were provided with written and verbal background to this research. Prior to administration, a survey tool was prepared that consisted of the following:

- A letter of introduction stating the purpose of the study,
- Informed consent form which outlined the ethical rules of the researcher and offering consent to participate,
- A Biographical Questionnaire requesting certain biographical information,
- The Burnout Measure (BM) (Pines & Aronson, 1988) and the Emotional Quotient Inventory Questionnaire (EQ-i) (Rahim & Minors, 2003).

A Questionnaire was used to collect the data as it draws accurate information from the officers and helped to obtain as a close picture as possible of their burnout and EI levels (Hague, 1993).

4.7.1 Questionnaires

The objective of using questionnaires is to obtain facts and opinions about a phenomenon from people who are informed on the particular issue. Questionnaires are regarded as the most generally used instruments and can be applied in various ways. A well-designed and

administered questionnaire can provide the necessary data to address the research questions (Hague, 1993).

4.7.2 Purposes

Questionnaires draw accurate information from the selected respondents. This is done to obtain as close a picture as possible of what is happening in the SAPS. Questions phrased elicit facts, comments and attitudes and facilitates information processing. Information processing can also determine the frequency in which certain actions are carried out or how officers perceive their own and that of their supervisors' levels of emotional intelligence and their own burnout levels (Hague, 1993).

4.7.3 Types

Different types of questionnaires can be identified; in this case self-administered questionnaires were used as a data collection method. Questionnaires, as a part of a research packet, were handed to the sample of police officers. They completed the assigned questionnaires on their own. The researcher and fieldworkers was available to deal with any problems experienced in the completion of the packets.

4.7.4 Rating scale utilised in questionnaires:

The officers were asked to provide a numerical score to indicate their levels of opinions and facts. A score out of 7 yields a good distribution of responses and enables the researcher to pick up differences of opinion (Hague, 1993).

4.8 Data collection process

Brief meetings were held with all fieldworkers either telephonically or face-to-face, explaining the purpose of this study, their role and the data collection procedures. Part of the fieldworkers' role was to explain to all participants about the purpose of this study, the completion of the

informed consent form, any legal considerations as well as instructions for the completion of the survey tool. They were also responsible to collect all completed data and to report back to the researcher of any obstacles. All officers, who participated in this study, received a research packet. It was the fieldworkers' responsibility to ensure that they received the completed questionnaires against the determined data collection deadline. It was the researcher's responsibility to maintain follow-up with the progress of data collection and to collect all completed research packets.

- The researcher communicated to the fieldworkers that any participants and fieldworkers could withdraw at any time for any reason. Fieldworkers had to submit an e-mail to the researcher indicating his/her desire to take part in this study. The test material was disseminated throughout the selected stations with adherence to specific administration instructions:
- To ensure confidentiality, participants were asked not to indicate their identity in any place on the materials.
- Complete anonymity of the participants was maintained
- Prior to receiving the survey packet, participants were asked to sign a letter of informed consent.
- The research packet was administered in a group setting.
- Participants was instructed how to individually complete their questionnaires.
- There were no restrictions for the questionnaires and answers were be double checked for accuracy.
- Fieldworkers were provided with the telephone number of the researcher. Fieldworkers assisted with the administration of the packet to the officers at various times during the week over the 5-month timeframe. Data collection sessions occurred at the start of or end of shifts. During these sessions officers were asked to complete a research survey tool.

Moreover numerous attempts were made at different stations to garner greater participation as some selected stations failed to generate sufficient participation. Greater participation occurred at stations where participants had a good relationship with their station management who also played the role of fieldworker. Completed questionnaires and informed consent forms were

placed in data collection boxes. These boxes were collected based on telephonic conversations with all fieldworkers. The researcher collected all completed packets during the months of December 2007, February and March 2008. Proposed data collection commenced in October 2007 to March 2008. Thus, the sample consisted of a total of 108/140 (77%) officers.

4.9 Measuring Instruments

This study used two questionnaires to operationalise the variables to be investigated. The first was the Burnout Measure (BM) that was developed by Pines et. al., (1981). The second instrument was Rahim and Minors's (2003) version of the EQ-i. This instrument consisted of two sections having 30 questions to complete by the employee. The employee had to rate his/her emotional intelligence as well as that of their immediate supervisor's emotional intelligence. The EQ-i items were measured using a 7-point scale.

4.9.1 Burnout Measures

Burnout measures may represent a method of assessing organisations to determine the extent to which the level of stress has exceeded employee resources. Elimination of stress from organisations is neither possible nor desirable and the development of prevention programs for enhancing employee resources remains a challenge. In empirical studies, different types of measures represent burnout. It is also important to use reliable and valid instruments to measure burnout, as it is not only evident for the purpose of empirical research but ultimately for individual assessment. Thus, the purpose of this section is to present an overview of measures that have been used to assess burnout. Several psychometric properties and criteria were used for assessing various burnout measures such as inter-item reliability, test-retest consistency and complexity of the factor structure. The Burnout Measure and The Emotional Intelligence Quotient Inventory (EQ-i) were used in this study to assess the burnout and emotional intelligence levels of police officers. A brief overview of the BM, the EQ-i and alternative measures is highlighted.

4.9.1.1 The Burnout Measure (BM)

The BM is regarded as the second most widely employed burnout questionnaire used to measure burnout after the MBI (Pines & Aronson, 1988). For the purposes of this research, based on the selection of the burnout measuring instrument, The Burnout Measure (BM), burnout can be defined as: "a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are emotionally demanding" (Pines & Aronson, 1988, p.9). In this view, burnout is not restricted to certain professional groups such as the helping professions as was initially the case with the first version of the MBI (Winnubst, 1993). Originally, Pines & Aronson (1988) have distinguished between burnout and the Tedium as it was considered similar in symptomatology but different in origin. Tedium can be described as the result of prolonged chronic pressure: mental, physical and emotional; whereas burnout is the result of repeated emotional pressures, which is associated with an intense involvement with people over long periods of time (Pines et. al., 1981). Furthermore, Pines and Aronson (1988) broadened the burnout concept, which now includes Tedium and is denoted as the Burnout Measure. This instrument originally denoted Tedium Measure (Pines et. al., 1981).

The BM consists of 21 items that express exhaustion and are scored using a 7-point rating scale ranging from "never" = 1 to "always" = 7. The proposed norms for individual assessment for burnout are not recommended because valid norms of the BM are lacking. Nevertheless, the BM is regarded as a useful and reliable research instrument, as it is demonstrated by psychometric properties of internal consistency coefficients ranging from 0. 91 to 0. 93. Test-retest reliabilities range from 0. 66 to 0. 89 across a period of 1 and 4 months (Pines & Aronson, 1988, p. 220).

The BM scores were found to be negatively related with satisfaction from work, life and from oneself (Pines et. al., 1981, p.209); and positively with on-duty physical symptoms (r-values ranging from 0. 32 to 0. 38) (Pines & Aronson, 1988, p.221). Typically, correlations with work features are modest and seldom exceed values of 0. 40 (Pines et. al., 1981, p. 213-218). An examination of the face validity of the BM (Pines et. al., 1981, p.203) suggests that it may represent different affective states, including depression, anxiety and fatigue or worn out. The BM includes only negative or displeasing affects, items tapping positive emotions, such as

'being happy', are reverse-scored in the derivation of the BM total score.

Confirmatory factor analysis studies of the BM are lacking. Using the BM is strongly positively associated with the MBI's emotional exhaustion and depersonalisation; and negatively associated with personal accomplishment (Cororan, 1985).

Despite burnout being a multidimensional definition, the BM is conceived as a one-dimensional measure and questionnaire yielding a single composite burnout score. Furthermore, researchers have argued that the BM is not a proper operationalisation of their definition of burnout. Thus, it is not surprising that two factorial validity studies have failed to distinguish more than one burnout dimension in the BM (Corcoran, 1985). Unfortunately, only a few studies exist in which other burnout measures, such as the Maslach Burnout Inventory and the BM have been simultaneously used (Corcoran, 1985). Results indicated that the BM is strongly associated with the MBI's emotional exhaustion and depersonalization ($.50<r<.70$) and less strongly associated with MBI's personal accomplishment ($-.25<r<-.30$). However, the BM remains a reliable and valid research instrument that indicates the individual's level of exhaustion, which is considered to be the core element of the burnout syndrome (Shirom, 1989).

4.9.1.2 The Maslach Burnout Inventory (MBI)

Currently, the MBI is the most widely used burnout instrument and whose development has significantly contributed to the research of the burnout phenomenon (Schaufeli & Enzmann, 1998). The authors of the MBI, Maslach and Jackson (1981) describe burnout, as a three-dimensional syndrome that is characterized by emotional exhaustion, depersonalization and reduced personal accomplishment. Due to later developments, the MBI-GS (General Survey), MBI-ED (Educators) and MBI-HS (Human Services Survey), can now be applied to people in any other occupations or professions as burnout can occur within any other occupational professions (Cordes & Dougherty, 1993). The dimensions on these developments are conceptualised differently, due to the nature of the job.

4.9.1.3 Alternative measures of Burnout

Burnout as we conceive may be measured with the MBI, BM or alternatively with The Oldenberg Burnout Inventory (OLBI) (Demerouti, Bakker, Vardakou & Kantas, 2002) and the Shirom-Melamed Burnout Measure (S-MBM) (Schaufeli, 2003). The OLBI assesses two dimensions, namely, exhaustion and disengagement (Demerouti et. al., 2002). The S-MBM measures aspects such as physical fatigue, emotional exhaustion and cognitive weariness which represent the loss of three forms of individually possessed energy (Schaufeli, 2003).

Enzmann, Schaufeli, Janssen and Rozeman (1998) state that the BM suffers from psychometric flaws and that the BM and S-MBM reduce burnout to mere exhaustion, even though it is measured in a different way.

4.9.10 Comparing measures

The Maslach Burnout Inventory (MBI) is regarded as the most accepted instrument for measuring burnout. The Burnout Measure, the Shirom Melamed Burnout Measure and the OLBI are not regarded as suitable burnout measuring instruments as they measure one core aspect of burnout such as exhaustion (Schaufeli, 2003). The OLBI instrument also suffers from psychometric flaws (Enzmann et. al., 1998). However, the BM remains a reliable and valid research instrument that indicates the individual's level of exhaustion, which is considered to be the core element of the burnout syndrome (Shirom, 1989). Thus the BM is considered to be the ideal instrument to measure the burnout levels of officers' and to serve the purpose of this study.

In summary, the overview suggests that since the inception of the burnout phenomenon, much progress has been made in the measurement of burnout such as:

- The burnout measuring instruments are self-report measures
- The BM is conceived as a one-dimensional questionnaire of burnout and is appropriate to measure burnout outside the human services profession.
- Burnout instruments are designed to assess burnout levels in human services and other

occupational professions

- Two self-report instruments, the MBI and the BM have been intensively used and psychometrically studied to report satisfactory internal consistencies.
- The BM is reduced to measure exhaustion.
- Exhaustion is considered as the core and first stage of the burnout process and provides a critical point for managerial intervention (Gaines & Jermier, 1983). The following section highlights problems and comparisons of burnout measuring instruments.

4.9.10.1 Problems and comparisons of Burnout Measures

Considerable confusion seems to exist about the number of dimensions involved to measure burnout as some instruments not only assesses individual burnout but include organisational aspects as well (Schaufeli, Enzmann & Girault, 1993).

- Burnout studies in South Africa have been limited by poorly designed and controlled studies and a lack of sophisticated statistical analysis (Rothmann, 2003). Reliable and valid instruments are required for the measurement of burnout. This is necessary to conduct empirical research and for the purpose of individual assessment.

- Although the MBI and the BM are known as burnout measuring instruments, an evaluation of their construct validity is still lacking. This type of evaluation is important when translating burnout inventories and applying these instruments to other national or cultural settings (Schaufeli & Dierendonck, 1993). It appears that more research is needed to establish whether or not the three BM-dimensions show different patterns of correlations with other variables that can be interpreted within a specific theoretical framework. Until such validation has been done, the BM should conceptually be considered, as a one-dimensional measure of exhaustion, despite some psychometric evidence of three BM-components. Thus, it is possible that the components of the burnout syndrome can be separately studied.

- The BM and the MBI measures or assesses a similar construct that is central to burnout: Exhaustion. Moreover, the core meaning of exhaustion has been emphasized in the light of the empirical burnout research of the past decade. Schaufeli and Dierendock's (1993) validity analyses, confirms that exhaustion appears to be the most dominant and robust dimension of burnout, but also appears to be the least specific element of the syndrome. Exhaustion is also strongly related with somatic complaints and psychological strain. Schaufeli and Taris (2005) contend that burnout can be measured using fewer than three dimensions. Schaufeli and Direndock (1993) study suggests that emotional exhaustion overlaps with non-physical and mental symptoms. Kristensen, Borritz, Villadsen and Christensen (2005) believe that three dimensions are too many for characterising burnout. Thus, they agree to reduce burnout to a single dimension.

- Schaufeli, Salanova, Gonzales-Roma and Bakker (2002) observed that consistent core burnout factors are exhaustion and cynicism. Exhaustion is considered the first reaction to stress. Maslach and Leiter (1997) identified emotional exhaustion when an individual feels overextended both physically and emotionally (Farmer, 2004).

- Burnout, known as a negative work-related psychological state that is primarily characterized by mental exhaustion, has been intensively studied over the past few decades (Schaufeli, 2003; Shirom, 2003).

These are some of the problems that may be categorised as methodological or practical problems versus conceptual problems. The following section discusses measures of emotional intelligence.

4.10 Measures of Emotional Intelligence

4.10.1 The Emotional Quotient-Inventory (EQ-i)

The oldest emotional intelligence instrument is Bar-On's EQ-i. This is a self-report instrument designed to measure or assess those personal qualities that enable some people to possess better "emotional well-being" than others. Other prominent emotional intelligence theorists, Rahim and

Minors (2003) developed a mixed-model measure of emotional intelligence, the Emotional Intelligence Index (EQ-I). They expanded on Goleman's (1995, 1998) five dimensions which include self-awareness, self- regulation, motivation, empathy and social skills. This 30-item version of the EQ-i was utilised in the present study. Currently, there are few South African research studies that have used this 30-item EQ-i instrument. However, Schlechter et. al., (2005) used the 40-item version of the EQ-i instrument in a South African study and yielded a three - factor structure of the instrument, for the factors of self-awareness, self-regulation and motivation. Van Staden's (2005) factor analysis yielded a single factor of the EQ-i with a reliability estimate of .974 of all 30 items.

For the purposes of this research, EI was defined by primarily adopting the conceptualisation of "ability", because of the selected EI measuring instrument, the Emotional Quotient Inventory (EQ-i) (Rahim and Minors, 2003). EI can therefore be defined as: "one's emotions, managing emotions…, motivating oneself.., recognizing emotions in others…, and handling relationships" Goleman's (1995, p.xii). Officers were asked to rate their own and that of their immediate supervisor's emotional intelligence using the self-report EQ-I as developed by Rahim and Minors (2003). The dimensions for this scale were self-awareness, self-regulation, motivation, empathy and social skills. Rahim and Minors (2003) reported reliability estimates for the sub dimensions ranging from .62 to .98 for the six countries in which they conducted their research. Cronbach alpha reliability estimates ranged between .84 and .94.

Table 4.11 highlights commonly used measures of emotional intelligence.

4.10.2 Types of measures

Table 4.11: Commonly used measures of Emotional Intelligence

Measure	Corresponding Theorist	Mode of measure	Brief Description
Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)	Mayer and Salovey	Performance-Based	Specific tasks are used to measure level of ability of each branch of emotional intelligence
Emotional Quotient Inventory (EQ-i)	Bar-On	Self-Report	133 Self-report items measure total IQ and each of the 5 components of the Bar-On Model
Emotional Competence Inventory (ECI)	Goleman	Self-Report and other report	A multi-rater instrument that provides ratings on a series of behavioural indicators of emotional intelligence
Emotional Intelligence Appraisal (EIA)	Goleman	Self-Report and other report	A 7 minute assessment meant to measure the existence of Goleman's four components of emotional intelligence
Work Profile Questionnaire-Emotional Intelligence Version (WPQei)	Goleman	Self-Report	Measures 7 of Goleman's competencies thought of as most essential for effective work performance
Levels of Emotional Awareness (LEAS)	Other	Self-Report	Measures levels of awareness of emotions in oneself and others
Self -Report Emotional Intelligence Test (SREIT)	Salovey and Mayer, or other	Self-Report	33-Item measure of Salovey and Mayer's original concept of emotional intelligence

Source: Stys and Brown (2004).

4.11 Using the BM and EQ-i to study Burnout and Emotional Intelligence among Officers

To date, there has been much interest in the occupational stress of policing and a growing body of literature in this area in the 1960's (Loo, 2004). Many researchers have examined numerous stressors in police work and the kinds of stress reactions, coping and individual differences among police managers and supervisors rather than police officers. Furthermore, attention to police burnout as measured by the BM, and for emotional intelligence as measured by the EQ-i is the current focus.

4.12 Validity and Reliability of the current research study

Babbie (1995) states research should be properly designed to ensure that it is internally and externally valid. Internally validity was ensured by focussing on the theoretical framework on sound conceptualisation of the constructs of burnout and emotional intelligence, and through the use of appropriate scientifically validated measuring instruments. Data measured was in an accurate, valid and reliable way. Data analysis selected was relevant to the data collected and the final solutions adequately supported the data (Babbie, 1995). External validity refers to the extent to which research results can be applied to and across different persons, settings and times (Babbie, 1995).

Reliability was addressed through ensuring standardised assessment conditions, adherence to standard scoring instructions for instruments and using scientifically validated and reliable instruments to assess research variables (Foxcroft & Roodt, 2001).

4.13 Data Analysis

The researcher manually entered the responses of the completed questionnaire packets into the Statistical Packages for the Social Sciences (SPSS) 15.0 version. Descriptive statistics computed were the following:

4.13.1 Pearson's product moment correlation

The use of this correlation indicated the intensity of the relationship between paired values of emotional intelligence and burnout being measured. Also to test the hypotheses regarding the positive or negative relationship between scores of emotional intelligence and burnout (Weiner, 1971). Pearson product-moment correlation provides two important aspects of the strength between two variables. Firstly, the coefficient provides an indication of the direction of the relationship and secondly, provides an indication of the strength of the association between the two variables. Thus, correlations are used to measure the size and direction of the linear relationship between two variables (Field, 2005). To determine the strength of the relationship Guilford's informal interpretations of *r* can be used. These interpretations are displayed in Table 4.12:

Table 4.12: Guildford's Informal Interpretations

Value of *r* (+/-)	**Informal Interpretation**
<0.2	Slight; almost no relationship
0.2-0.4	Low correlation; definite but small relationship
0.4-0.7	Moderate correlation; substantial relationship
0.7-0.9	High correlation; strong relationship
0.9-1.0	Very high correlation; very dependable relationship

4.13.2 Cronbach's coefficient alpha

The use of this coefficient determined the overall utility of the EQ-i and the BM as measuring instruments (Nunnully, 1978).

4.13.3 Exploratory factor analysis

Factor analysis is known as the oldest statistical procedure for investigating relations between sets of observed and latent variables. Oblique rotation and parallel analysis were calculated in order to aid in interpretation.

4.13.3.1 Oblique Rotation

Oblique rotation allows for factors to be correlated and yields extensive information that will aid determining the possibility of hierarchical factor structure (Byrne, 2005).

4.13.3.2 Parallel Analysis

The focus of parallel analysis is on the number of components that account for more than variance than the components derived from random data. This technique has been used in principal component analysis.

Parallel analysis extracts eigenvalues from random data sets that parallel the actual data set with regard to the number of cases and variables. The eigenvalues derived from the actual data are then compared to the eigenvalues derived form the random data. Horn (1965) describes this procedure where the eigenvalues form the random data serving as the comparison baseline, whereas it is recommended in practice to use the eigenvalues that correspond to the desired percentile, typically the 95th percentile of the distribution of random data eigenvalues (Turner, 1998).

4.13.4 T-test

The use of the t-test is to determine the significant differences between two samples such as groups or organisational level (Howell, 1995).

4.13.5 Multiple-regression analysis

The use of a multiple-regression analysis predicted changes in the dependent variable, burnout, with response to changes in the independent variable, emotional intelligence (Creswell, 2005). When more than one independent variable is used to predict a dependent

variable, multiple regression is used. The latter technique can determine the relative contribution of the independent variables to the prediction of the dependent variable (Field, 2005).

Other statistics such as the level of significance (p-value), means, the standard deviation and frequency were also calculated.

4.14 Ethical Considerations

- The identity and interests of those involved were protected as anonymity was assured to ensure minimal invasion of their privacy.
- Confidentiality of the information supplied in this research was guaranteed.
- Voluntary participation and informed consent were obtained ensuring that they explicitly expressed a willingness to participate.
- Only validated and reliable measuring instruments were used to prevent any harm to participants.
- The parameters of confidentiality of the information supplied were explained for example: All participants were informed how the data would be recorded, shared and processed.
- Permission from the Station Commissioners of the selected police stations was obtained and data regarding the population of police officers were collected.
- The researcher only performed those functions for which she was prepared which was to assist with the administration, collection and interpretation of the research packets and could only use information supplied for research purposes.
- Results of this research were reported to the officers, to evaluate them about their EI and burnout levels, recommendations were made so that they felt positive about their participation.
- Research results will help top management of the SAPS to take pro-active action.

4.15 Summary

Very few studies have confirmed a definite correlation between emotional intelligence and burnout. However, the SAPS experiencing stress, burnout and any other variable have been documented, whilst emotional intelligence as a construct has also received increasing attention among researchers in relation to other constructs. In addition, the importance of emotional intelligence within the police environment has been mentioned. This chapter reviewed the methodology utilised in this study. The results of this research will be presented and discussed in the next chapter.

Chapter 5

Presentation of Results

5.1 Introduction

This chapter presents the results of the study. The aim of this chapter is to describe and summarise the statistical findings with regard to this study's main research questions and hypotheses. The purpose of this study was to determine if there is a relationship between emotional intelligence and burnout of police officers. The study analysed the impact of the independent variable, emotional intelligence on the dependent variable, burnout. This involves reporting and interpreting the results of the statistical findings as generated by SPSS 15.0. This includes a review of descriptive statistics, frequencies, and correlations and multiple regression analyses. These results are aligned to the research methodology discussion of the previous chapter. The following research questions were the foundation of the analyses of the study:

- To what extent does the emotional intelligence ability play a role in officers' burnout levels?
- What is the impact of emotional intelligence on the working of police officers?
- Will a decrease in emotional intelligence serve as a possible predictor of police officers who may be ill-suited for the profession and as a result, experience burnout?
- There is a relationship between emotional intelligence and burnout of police officers?
- There is statistical significant difference between police officers with high and low emotional intelligence levels in terms of their burnout levels.
- There is statistical significant difference between the emotional intelligence levels of the manager in terms of their burnout levels.

First, the reliability analysis of the measuring instruments/scales is reported and interpreted. Thereafter, the exploratory factor analysis and correlation results for the officer (individual) and their supervisor (manager) will be presented. This is then followed by presenting the multiple

regression analysis and the chapter ends with a chapter summary.

5.2 Emotional Intelligence: Individual

5.2.1 Reliability analysis of the measuring instruments

Reliability analysis was conducted for the EQ-i and the BM instruments utilised in this study. Cronbach Alpha coefficients are displayed in the tables below. If the overall scale's Cronbach alpha is too low for example less than .7, items with less than .7 needs to be removed to increase reliability of the scale (Pallant, 2001). However, this was not the case.

5.2.1.1 EQ-i

Cronbach alpha reliability coefficients were calculated for the EQ-i instrument. This was done to estimate the reliability coefficients for the five emotional intelligence factors as measured by the EQ-i: Self-awareness, self-regulation, motivation, empathy and social skills. The following Table 5.1 illustrates the reliability coefficients and is regarded as acceptable (Sekeran, 2000).

Table 5.1: Cronbach Alpha Reliability Coefficients

EQ-I Factors	Mean	Std Deviation	Cronbach Alpha Reliability Coefficient	Evaluation based on Sekeran (2000)
Self-Awareness	35.69	7.261	.871	Good
Self-Regulation	35.06	7.715	.907	Good
Motivation	35.52	7.245	.872	Good
Empathy	34.62	7.533	.864	Good
Social Skills	35.02	7.090	.831	Good

The results in Table 5.1 indicate that the EQ-i factors are reliable. Therefore, for the purpose of this study, the EQ-i instrument is a reliable measuring instrument measuring an officer's emotional intelligence.

5.2.2 Exploratory Factor Analysis (EFA): Individual

Factor analysis condenses a large set of variables or scale items down to a smaller, more manageable number of dimensions or factors. It summarises the underlying patterns of correlation and looks for groups of closely related items (Pallant, 2001). Byrne (2005) suggests that exploratory factor analysis is useful when links between the observed variables and their underlying factors are unknown or uncertain. This technique is exploratory in that the researcher has no prior knowledge that the observed variable actually measures the intended factors. Factor analysis is known as the oldest statistical procedure for investigating relations between sets of observed and latent variables. In using this approach, exploratory factor analysis was used for investigating relations between variables (Byrne, 2005). The results are displayed in Table 5.2.

5.2.2.1 Kaiser-Meyer-Olkin Measure (KMO) and Bartlett's Test of Spherity

Pallant (2001) regards the KMO value of .6 and above as good. The Bartlett's Test value should be significant, that is the significant value should be .05 or smaller. In the EI: Individual Table (5.2), the KMO value is 0.90574 and the Bartlett's Test is significant (p>.000) therefore, the analysis is appropriate.

Table 5.2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.90574
Bartlett's Test of Spherity	Approx. Chi-Square df. Sig.	2872.7 .435 .000010

Using Kaiser's criterion of considering eigenvalues of 1.0 or more are retained for further investigation. The eigenvalue of a factor represents the amount of the total variance explained by that factor. This information is in the total variance explained as illustrated in Table 5.3. The eigenvalues for each component as listed in Table 5.3 are: 15.63137; 2.10228; 1.53425 and 1.07143. These four components explain a total of 67.80% of the variance. Note that the first component explains a total of 52.11% of the total variance of 67.80% and the other components

the other 15.67%. These components were extracted for further investigation. See Table 5.3.

Turner (1998) states that the focus of parallel analysis is on the number of factors that account for more than variance than the factors derived from random data. This technique has been used in principal component analysis. Parallel analysis extracts eigenvalues from random data sets that parallel the actual data set with regard to the number of cases and variables. The eigenvalues derived from the actual data are then compared to the eigenvalues derived form the random data. Horn (1965) describes this procedure, where the eigenvalues form the random data, as serving the comparison baseline, whereas it is recommended in practice to use the eigenvalues that corresponds to the desired percentile, typically the 95th percentile of the distribution of random data eigenvalues (Turner, 1998).

In the sample output, it is clear that parallel analysis indicates that the first two eigenvalues from the actual data are larger than the corresponding first two 95th percentile and mean random data eigenvalues. However, the third eigenvalue from the actual data is less than the third 95th percentile and mean random data eigenvalue. This indicates a clear break between the third and the fourth factor variance as factor 1 and 2, capture much more of the variance than the remaining factors. Thus, from this Table 5.4, factors 1 and 2 were retained, extracting only two factors. This indicates that the two factors should be retained.

Table 5.3: Explained variance based on Eigenvalues

Variable	Eigenvalue	Proportion of variance	Cumulative Proportion of variance
1	**15.63137**	**0.52105**	**0.52105**
2	**2.10228**	**0.07008**	**0.59112**
3	1.53425	0.05114	
4	0.07143	0.03571	
5	0.97874	0.03262	
6	0.92281	0.03076	
7	0.75969	0.02532	
8	0.72112	0.02404	
9	0.70786	0.02360	
10	0.61021	0.02034	
11	0.56232	0.01874	
12	0.49177	0.01639	
13	0.45824	0.01527	
14	0.42928	0.01431	
15	0.36123	0.01204	
16	0.35021	0.01167	
17	0.31050	0.01035	
18	0.28494	0.00950	
19	0.27220	0.00907	
20	0.22482	0.00749	
21	0.20752	0.00692	
22	0.18683	0.00623	
23	0.15723	0.00524	
24	0.14468	0.00482	
25	0.13268	0.00442	
26	0.10426	0.00348	
27	0.09962	0.00332	
28	0.08263	0.00275	
29	0.05173	0.00172	
30	0.04757	0.00159	

Table 5.4: Parallel Analysis (PA) Horn (1965): Emotional Intelligence: Individual (Original)

Variable	Real –data Eigenvalues	Mean of Random Eigenvalues	95 Percentile of Random Eigenvalues
1	**15.63137***	**2.13723**	**2.30715**
2	**2.10228***	**1.96528**	**2.08998**
3	1.53425	1.83519	1.93186
4	0.07143	1.72618	1.82098
5	0.97874	1.63034	1.71198
6	0.92281	1.54161	1.61950
7	0.75969	1.45938	1.52809
8	0.72112	1.37964	1.44656
9	0.70786	1.30959	1.36616
10	0.61021	1.24070	1.29763
11	0.56232	1.17433	1.23270
12	0.49177	1.11306	1.16763
13	0.45824	1.05451	1.10888
14	0.42928	0.99582	1.04364
15	0.36123	0.94211	0.98839
16	0.35021	0.88821	0.94336
17	0.31050	0.83482	0.88824
18	0.28494	0.78674	0.83368
19	0.27220	0.73928	0.78525
20	0.22482	0.69190	0.73857
21	0.20752	0.64741	0.69007
22	0.18683	0.60203	0.64360
23	0.15723	0.55856	0.59812
24	0.14468	0.51609	0.5595
25	0.13268	0.47506	0.51530
26	0.10426	0.43525	0.47337
27	0.09962	0.39440	0.43063
28	0.08263	0.35462	0.39498
29	0.05173	0.31042	0.35054
30	0.04757	0.26026	0.30965

* Advised number of dimensions: 2

In the next section the procedure for rotating these two factors to aid in the interpretation is demonstrated.

5.2.2.2 Rotated Loading Matrix

In the rotated loading matrix, loadings of each of the variables on the two factors were selected. It should be noted that loadings with absolute 0.300 were omitted to maintain equal distribution of the values for all the two factors. The main loadings as highlighted in Table 5.5 for factor 1 are: items 1-11, 13, 15 and 16, and items for factor 2 are 12 and items 20-30. These items reflect the following emotional intelligence dimensions: self-awareness and empathy.

Tale 5.5: Rotated Loading Matrix

Variable	F 1	F 2
1		0.669
2		0.718
3		0.660
4		0.719
5		0.776
6		0.556
7		0.634
8		0.912
9		0.496
10		0.611
11		0.648
12	0.559	
13		0.798
14		
15		0.706
16		0.623
17	0.683	
18		
19		
20	0.794	
21	0.792	
22	0.634	
23	0.548	
24	0.945	
25	0.752	
26	0.565	
27	0.637	
28	0.977	
29	0.820	
30	0.846	

Note: Only loadings above .3 are displayed

In this case the labeling of the two components is easy. However, the identification is not as many of the EI dimensions appear to be combined into single new EI dimensions which deems further investigation.

5.2.2.3 The results could be presented as follows:

The 30 emotional intelligence items of the EQ-i was subjected to factor analysis using SPSS. Inspection of the correlations revealed the presence of correlations of .3 and above. The KMO value was .90574, exceeding the value of .6 (Kaiser, 1974), and the Bartlett's Test (Bartlett, 1954) reached statistical significance (p>.000), supporting factorability of the correlations.

On the basis of the exploratory factor analysis revealed the presence of four factors with eigenvalues exceeding 1, explaining 67.80% of the variance. Note that the first factor explains a total of 52.11% of the total variance of 67.80% and the other factors the other 15.67%. These factors were extracted for further investigation. A further inspection using Horn's (1965) parallel analysis revealed a clear break after the second factor. It was than decided to retain two factors for further investigation. To aid in the interpretation of these two factors, oblique rotation was performed. The rotation solution presented in (Table 5.5) revealed the presence of factors showing a number of strong loadings of .6 and above, omitting loadings of .300, and all variables loading on only two factors. The two factor solution explained 52.11% of the variance, with factor 1 contributing to 52.105% and factor 2 contributing to 7.008%, with reliability estimates of rotated components amounting to .962 and .944 for factors 1 and 2. The reliability estimates are displayed as follows:

Table 5.6: Explained variance and reliability of rotated components (Mislevy & Block, 1990)

Factor	Variance	Reliability estimate
1	8.594	0.962
2	8.355	0.944

The next section presents the correlations associated with the various EI dimensions.

5.3 Correlations EI: Individual

- **Statistical Techniques**

Pallant (2001) states that statistical techniques aim to describe correlations. A positive correlation indicates that as one variable increases, so does the other variable. A negative correlation indicates that as one variable increases, the other decreases.

To determine the strength of the relationships between the emotional intelligence dimensions, the guidelines by Guildford (Tredoux & Durrheim, 2002) are used:

- **Magnitude of *r***

To evaluate the strength of a statistically significant relationship, it is useful to have a guide to interpret the strength of the identified correlation. Guilford (Tredoux and Durrheim, 2002) provides a useful reference to interpret statistical significant relationships among variables. Thus, although a correlation may be statistically significant it must still be evaluated in the context of its associated strength of the relationship. Guilford's guideline is similar to that of Cohen's *d* (1998), which indicates the effect size associated with a significant difference between two groups of differences.

Table 5.7: Cohen's (1998) Guidelines

r=.10 to .29 or r=-.10 to r=-.29
r=.30 to .49 or r=.-30 to r=-.49
r=.50 to .1.0 or r=.-50 to r=.-1.0

Cohen (1988) suggests that these guidelines apply whether or not there is a negative sign at the front of the r value. It should be noted that the negative sign only refers to the direction of the relationship and not the strength of the relationship. Thus, for example, the strength of r=.5 and r=.-5 is the same just the direction of the relationship is different. Guilford's informal interpretations of the magnitude of *r* are presented in Table 5.8.

Table 5.8: Guilford's Informal Interpretations of the Magnitude of *r*

Value of *r* (+ or -)	Informal Interpretation
< 0.2	Slight; almost no relationship
0.2 – 0.4	Low correlation; definite but small relationship
0.4 – 0.7	Moderate correlation; substantial relationship
0.7 – 0.9	High correlation; strong relationship
0.9 – 1.0	Very high correlation; very dependable relationship

In light of Guilford's guidelines the following correlations are reported for the individual (See Table 5.9).

5.3.1 Correlations: EI Individual

5.3.1.1 Self-Awareness

The correlations range from .800 to .876, indicating a positive and strong relationship between self-awareness and motivation (r=.867), self-regulation (r=.804), empathy (r=.800) and social skills (r=.876).

5.3.1.2 Self-Regulation

The correlations range from .747 to .853, indicated quite positive and strong relationships between self-regulation and self-awareness (r=.804), motivation (r=.853), empathy (r=.747) and social skills (r=.845).

5.3.1.3 Motivation

The correlation ranged form .834 to .875, indicating quite strong and positive relationships between motivation and self-awareness (r=.867), self-regulation (r=.855), empathy (r=.834) and social skills (r=.875).

5.3.1.4 Empathy

Correlations ranged from .747 to .834, indicating quite strong and positive relationships between empathy and self-awareness (r=.800), self-regulation (r=.747), motivation (r=.834) and social skills (r=.776).

5.3.1.5 Social Skills

Correlations ranged between .776 to .876, indicating quite strong and positive relationships between social skills and self-awareness (r=.876), self-regulation (r=.845), motivation (r=.875) and empathy (r=.776).

These results are presented in the correlations Table 5.9.

Note: The following abbreviations for the emotional dimensions will apply and are used as such.

SA_IND = Self-awareness_ Individual
SR_IND = Self-regulation_ Individual

MOT_IND = Motivation_ Individual

EMP_IND = Empathy_ Individual

SOCS_IND = Social skills_ Individual

SA_MAN = Self-awareness_ Manager

SR_MAN = Self-regulation_ Manager

MOT_MAN = Motivation_ Manager

EMP_MAN = Empathy_ Manager

SOCS_MAN = Social skills_ Manager

The next section reports on the correlations for the manager of the individual.

Table 5.9: Correlations: Emotional Intelligence and Burnout: Individual and Manager

	SA_IND	SR_ IND	MOT_ IND	EMP_ IND	SOCS_ IND	SA_ MAN	SR_ MAN	MOT_ MAN	EMP_ MAN	SOCS_ MAN
SA_IND Pearson Correlation	1.000									
Sig. (2-tailed)										
N	108.000									
SR_IND Pearson Correlation	.804**									
Sig. (2-tailed)	.000									
N	108									
MOT_IND Pearson Correlation	.867**	.855**								
Sig. (2-tailed)	.000	.000								
N	108	108								
EMP_IND Pearson Correlation	.800**	.747**	.834**							
Sig. (2-tailed)	.000	.000	.000							
N	108	108	108							
SOCS_IND Pearson Correlation	.876**	.845**	.875**	.776**						
Sig. (2-tailed)	.000	.000	.000	.000						
N	108	108	108	108						
SA_MAN Pearson Correlation	.524**	.466**	.479**	.551**	.481**					
Sig. (2-tailed)	.000	.000	.000	.000	.000					
N	108	108	108	108	108					
SR_MAN Pearson Correlation	.526**	.467**	.475**	.538**	.490**	.901**				
Sig. (2-tailed)	.000	.000	.000	.000	.000	.000				
N	108	108	108	108	108	108				
MOT_MAN Pearson Correlation	.580**	.519**	.510**	.581**	.539**	.864**	.897**			
Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000			
N	108	108	108	108	108	108	108			
EMP_MAN Pearson Correlation	.556**	.499**	.512**	.578**	.458**	.917**	.883**	.880		
Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		
N	108	108	108	108	108	108	108	108		
SOCS_MAN Pearson Correlation	.555**	.512**	.521**	.578**	.529**	.909**	.921**	.919**	.934**	
Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	
N	108	108	108	108	108	108	108	108	108	
BM_TOT_EFA Pearson Correlation	-.393**	-.485**	-.442**	-.394**	-.383**	-.206**	-.263**	-.299**	-.268**	-.311**
Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.006	.002	.005	.001
N	108	108	108	108	108	108	108	108	108	108

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlations is significant at the 0.01 level (2-taled).

5.3.2 Correlations: EI Supervisor

5.3.2.1 Self-Awareness

The correlations ranged from .864 to .917, indicating positive and strong significant [p>0.01, N=108] relationships between self-awareness and motivation (r=.864), self-regulation (r=.901), empathy (r=.917) and social skills (r=.909).

5.3.2.2 Self-Regulation

The correlations ranged from .897 to .921, indicating quite positive and strong significant [p>0.01, N=108] relationships between self-regulation and self-awareness (r=.901), motivation (r=.897), empathy (r=.883) and social skills (r=.921).

5.3.2.3 Motivation

The correlation ranged form .864 to .919, indicating quite strong and positively significant [p>0.01, N=108] relationships between motivation and self-awareness (r=.864), self-regulation (r=.897), empathy (r=.880) and social skills (r=.919).

5.3.2.4 Empathy

Correlations ranged from .880 to .934, indicating quite strong and positively significant [p>0.01, N=108] relationships between empathy and self-awareness (r=.917), self-regulation (r=.883), motivation (r=.880) and social skills (r=.934).

5.3.2.5 Social Skills

Correlations ranged between .909 to .934, indicating quite strong and positively significant [p>0.01, N=108] relationships between social skills and self-awareness (r=.909), self-regulation (r=.921), motivation (r=.919) and empathy (r=.934).

5.3.3 Emotional Intelligence and Burnout: Individual and Supervisor

5.3.3.1 EI Individual and Burnout

The relationship between emotional intelligence dimensions of officers as measured by the EQ-i and burnout as measured by the Burnout Measure was investigated using Pearson Product-Moment Correlation Coefficients. There were strong negative correlations between total self-awareness (r=.-393), self-regulation (r=.-485), motivation (r=.-442), empathy (r=.-394) and social skills (r=.-383), [N=108, p>0.01] as related to officers total burnout levels. This indicates that the more self-aware, self-regulated, motivated, empathetic and socially inclined officers were, officers would be less likely to experience burnt-out.

5.3.3.2 EI Supervisor and Burnout

The relationship between emotional intelligence dimensions of the officers' supervisor as rated by officers, as measured by the EQ-i and burnout as measured by the Burnout Measure was investigated using Pearson Product-Moment Correlation Coefficients. There were moderate to strong negative correlations between total self-awareness (r=.-206), self-regulation (r=.-263), motivation (r=.-299), empathy (r=.-268) and social skills (r=.-311), [N=108, p>0.01] as related to officers' total burnout levels. This indicates the more officers viewed that their supervisors were more self-aware, self-regulated, motivated, empathetic and socially inclined, officers would less likely experience burnout.

The results for emotional intelligence and burnout for both the individual and supervisor were presented. The following section aims to explore the predictive ability of the independent variable, emotional intelligence on the dependent variable, burnout (Pallant, 2001). This is done through using a statistical technique known as a multiple regression analysis.

See Table 5.9 for correlations in light of the previous presented sections.

This section reported on the correlations for both the individual and the manager. In addition to the correlational results, the next section reports results on the t-test conducted for the individual and the supervisor.

5.4 T-test

An independent-sample t-test was conducted to compare the individual emotional intelligence scores with their burnout scores. There were significant differences in the scores for low emotional intelligence and high burnout (M=38.16, SD=5.64) and high emotional intelligence and low burnout (M=33.49, SD=7.87; p<.001, SA_Ind). In light of this result and the results from Table 5.10, it is evident that individuals with high burnout levels differed significantly from individuals with low burnout on all five of the individual dimensions associated with emotional intelligence.

Table 5.10: T-test: Individual

Variable	Level	N	Mean	Standard Deviation	t-value	Sig. (2-tailed)
SA_IND	Low	51	38.1569	5.64047	3.505	.001
	High	57	33.4912	7.86521	3.569	.001
SR_IND	Low	51	38.1373	6.07954	4.210	.000
	High	57	32.3158	8.02709	4.274	.000
MOT_IND	Low	51	37.9608	5.43677	3.481	.001
	High	57	33.3333	7.97615	3.554	.001
EMP_IND	Low	51	37.5686	5.59734	4.125	.000
	High	57	31.9825	8.08988	4.208	.000
SOCS_IND	Low	51	37.1765	5.82308	3.111	.002
	High	57	33.0877	7.59765	3.157	.002

The next section that follows reports on the second exploratory factor analysis conducted on the emotional intelligence dimensions for the individual.

5.5 New structure based on Exploratory Factor Analysis (EFA): Individual

The 30 EI: Individual items of the EQ-i were subjected to factor analysis using SPSS. Inspection of the correlations revealed the presence of correlations of .3 and above. The KMO value was .91288, exceeding the value of .6 (Kaiser, 1974), and the Bartlett's Test (Bartlett, 1954) reached statistical significance (p>.000), supporting factorability of the correlations.

Table 5.11 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.91288
Bartlett's Test of Spherity	Approx. Chi-Square	2559.2
	df.	.351
	Sig.	.000010

The exploratory factor analysis (Table 5.11) revealed the presence of four factors with eigenvalues exceeding 1, explaining 69.165% of the variance. Note that the first factor explains a total of 53.478% of the total variance of 69.165% and the other factors the other 15.687%. These factors were extracted for further investigation. A further inspection revealed using Horn's (1965) parallel analysis a clear break after the first factor. It was then decided to retain this factor for further investigation. Oblique rotation was performed to aid in the interpretation of this factor. The rotation solution (Table 5.12) revealed the presence of factors showing quite a few strong loadings of .6 and above, omitting loadings of .300, and all variables loading on only two factors. The factor solution explained 61.232% of the variance, with component 1 contributing to 53.478% and component 2 contributing to 7.754%, with reliability estimates (Table 5.15) of rotated factors amounting to .962 and .939 for factors 1 and 2 respectively.

In the sample output, it is clear that parallel analysis indicates that the first two eigenvalues from the actual data are larger than the corresponding first two 95th percentile and mean

random data eigenvalues. However, the third eigenvalue from the actual data is less than the third 95th percentile and mean random data eigenvalue. This indicates a clear break between the third and the fourth factor variance as factor 1 and 2, capture much more of the variance than the remaining factors. Thus, from Table 5.13, factor 1 and 2 were retained, extracting only two factors and therefore retaining these two factors.

In the rotated loading matrix (Table 5.14), loadings of each of the variables on the two factors were selected. It should be noted that loadings lower than absolute .300 were omitted to maintain equal distribution values for all the two components. The main loadings on component 1 are 12, 17, 20-30 and for component 2 are 1-11, 13 and 15-16. These results are presented in the following tables below.

Table 5.12 Explained variance based on Eigenvalues

Variable	Eigenvalue	Proportion of variance	Cumulative Proportion of variance
1	**14.43897**	**0.53478**	**0.53478**
2	**2.09357**	**0.07754**	**0.61232**
3	1.08747	0.04028	
4	1.05427	0.03905	
5	0.92292	0.03418	
6	0.85381	0.03125	
7	0.74527	0.02760	
8	0.67058	0.02484	
9	0.60033	0.02223	
10	0.55721	0.02064	
11	0.49946	0.01850	
12	0.46065	0.01706	
13	0.39816	0.01475	
14	0.34269	0.01269	
15	0.32648	0.01209	
16	0.30664	0.01136	
17	0.24914	0.00923	
18	0.24381	0.00903	
19	0.21801	0.00807	
20	0.19287	0.00714	
21	0.15827	0.00586	
22	0.14056	0.00521	
23	0.13069	0.00484	
24	0.10126	0.00375	
25	0.09875	0.00366	
26	0.06479	0.00240	
27	0.05339	0.00198	

Table 5.13 Parallel Analysis (PA) Horn's (1965): Emotional Intelligence: Individual

Variable	Real –data Eigenvalues	Mean of Random Eigenvalues	95 Percentile of Random Eigenvalues
1	**14.43897***	**2.05803**	**2.23725**
2	**2.09356***	**1.88550**	**1.99593**
3	1.08747	1.76122	1.86204
4	1.05427	1.65451	1.74047
5	0.92292	1.55999	1.63608
6	0.84381	1.46726	1.54065
7	0.74527	1.38256	1.45337
8	0.67058	1.30672	1.37126
9	0.60033	1.23054	1.29285
10	0.55721	1.16432	1.22105
11	0.49946	1.10071	1.15761
12	0.46065	1.03677	1.09079
13	0.39816	0.98006	1.03233
14	0.34269	0.92268	0.97485
15	0.32648	0.86767	0.91394
16	0.30664	0.81434	0.86165
17	0.24914	0.76440	0.80985
18	0.24381	0.71473	0.76683
19	0.21801	0.66613	0.71275
20	0.19287	0.61967	0.66866
21	0.15827	0.57238	0.61717
22	0.14056	0.52736	0.57247
23	0.13069	0.48185	0.52591
24	0.10126	0.43627	0.47870
25	0.09875	0.39154	0.43818
26	0.06479	0.34278	0.39030
27	0.05339	0.28998	0.33896

* Advised number of dimensions: 2

Table 5.14 Rotated Loading Matrix

Variable	F 1	F 2
1		0.654
2		0.719
3		0.657
4		0.706
5		0.792
6		0.559
7		0.624
8		0.888
9		0.493
10		0.574
11		0.633
12	0.557	
13		0.798
15		0.697
16		0.607
17		0.623
20	0.702	
21	0.792	
22	0.801	
23	0.629	
24	0.553	
25	0.938	
26	0.742	
27	0.581	
28	0.649	
29	0.981	
30	0.832	
	0.847	

Table 5.15 Explained variance and reliability of rotated components (Mislevy & Block, 1990)

Factor	Variance	Reliability estimate
1	8.271	0.962
2	7.476	0.939

The next section presents the statistical results for the supervisor.

5.6 Emotional Intelligence: Manager (Original)

Table 5.16: Cronbach Alpha Reliability Coefficients

EQ-I Factors	Mean	Std Deviation	Cronbach Alpha Reliability Coefficient	Evaluation based on Sekeran (2000)
Self-Awareness	34.51	7.503	.894	Good
Self-Regulation	34.88	7.821	.922	Good
Motivation	35.73	7.297	.917	Good
Empathy	34.95	7.999	.931	Good
Social Skills	34.68	8.429	.938	Good

The results in Table 5.16 indicate that the EQ-i factors were reliable. Thus, for the purpose of this study, the EQ-i instrument is a reliable measuring instrument for how an officer perceives his/her supervisor's emotional intelligence.

5.6.1 Exploratory Factor Analysis: Emotional Intelligence: Manager (Original)

Table 5.17 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.92925
Bartlett's Test of Spherity	Approx. Chi-Square	4292.7
	df.	.435
	Sig.	.000010

The 30 EI: Supervisor items of the EQ-i were subjected to factor analysis using SPSS. Inspection of the correlations revealed the presence of correlations of .3 and above. The KMO value was .92925, exceeding the value of .6 (Kaiser, 1974), and the Bartlett's Test (Bartlett, 1954) reached statistical significance (p>.000), supporting factorability of the correlations.

The exploratory factor analysis revealed the presence of three factors with eigenvalues exceeding 1, explaining 76.362% of the variance. Note that the first component explains a total of 67.20% of the total variance of 76.67% and the other factors the other 9.162%. These

factors were extracted for further investigation (see Table 5.18). A further inspection using Horn's (1965) parallel analysis (Table 5.19) revealed a clear break after the first factor. It was than decided to retain only one factor for further investigation.

In the sample output, it is clear that Horn's (1965) parallel analysis indicates that the first eigenvalue from the actual data is larger than the corresponding first two 95th percentile and mean random data eigenvalues. However, the second eigenvalue from the actual data is less than the third 95th percentile and mean random data eigenvalue. This indicates a clear break between the first and the second factor variance as component 1 captures much more of the variance than the remaining factors. Thus, from Table 5.20, factor 1 was retained, extracting only one factor and therefore retaining only one factor.

Oblique rotation was performed to aid in the interpretation of this factor. The rotation solution (Table 5.20) revealed the presence of factors showing a number of strong loadings of .6 and above. The factor solution explained 67.20% of the variance for factor 1, with a reliability estimate (Table 5.21) of rotated factor amounting to .986. These results are displayed in Table 5.20 below.

Table 5.18 Explained variance based on Eigenvalues

Variable	Eigenvalue	Proportion of variance	Cumulative Proportion of variance
1	**20.15990**	**0.67200**	**0.67200**
2	1.51219	0.05041	
3	1.29620	0.04321	
4	0.95786	0.03193	
5	0.77698	0.02590	
6	0.69239	0.02308	
7	0.54805	0.01827	
8	0.44798	0.01493	
9	0.39640	0.01321	
10	0.35031	0.01168	
11	0.34284	0.01143	
12	0.29645	0.00988	
13	0.28206	0.00940	
14	0.24715	0.00824	
15	0.22789	0.00760	
16	0.21438	0.00715	
17	0.17365	0.00579	
18	0.15826	0.00528	
19	0.14265	0.00475	
20	0.13523	0.00451	
21	0.11452	0.00382	
22	0.10067	0.00336	
23	0.08963	0.00299	
24	0.08274	0.00276	
25	0.06999	0.00233	
26	0.05132	0.00171	
27	0.04317	0.00144	
28	0.03906	0.00130	
29	0.02702	0.00090	
30	0.02308	0.00077	

Table 5.19 Parallel Analysis (PA) Horn (1965): Emotional Intelligence: Manager (Original)

Variable	Real –data Eigenvalues	Mean of Random Eigenvalues	95 Percentile of Random Eigenvalues
1	**20.15990**	**2.13505**	**2.30784**
2	1.51219	1.96516	2.07965
3	1.29620	1.83448	1.93615
4	0.95786	1.72692	1.81452
5	0.77698	1.62989	1.70505
6	0.69239	1.53927	1.60906
7	0.54805	1.45519	1.52270
8	0.44798	1.37727	1.44156
9	0.39640	1.20886	1.37110
10	0.35031	1.24258	1.30771
11	0.34284	1.17545	1.23148
12	0.29645	1.11347	1.17225
13	0.28206	1.05550	1.10874
14	0.24715	0.99742	1.04750
15	0.22789	0.94271	0.99749
16	0.21438	0.89011	0.94330
17	0.17365	0.83846	0.88953
18	0.15826	0.78741	0.83356
19	0.14265	0.73897	0.78356
20	0.13523	0.69229	0.73457
21	0.11452	0.64779	0.69187
22	0.10067	0.60413	0.64766
23	0.08963	0.55875	0.60104
24	0.08274	0.51717	0.55843
25	0.06999	0.47489	0.51181
26	0.05132	0.43581	0.47589
27	0.04317	0.39512	0.43546
28	0.03906	0.35253	0.39320
29	0.02702	0.30921	0.34823
30	0.02308	0.25816	0.30036

* Advised number of dimensions: 1

Table 5.20: Unrotated Loading Matrix

Variable	F 1	Communality
1	0.590	0.348
2	0.641	0.411
3	0.624	0.390
4	0.831	0.691
5	0.645	0.416
6	0.808	0.652
7	0.889	0.790
8	0.848	0.719
9	0.783	0.614
10	0.861	0.742
11	0.866	0.751
12	0.840	0.706
13	0.878	0.771
14	0.777	0.604
15	0.808	0.653
16	0.902	0.814
17	0.839	0.704
18	0.801	0.641
19	0.897	0.804
20	0.820	0.672
21	0.832	0.693
22	0.843	0.710
23	0.751	0.565
24	0.829	0.687
25	0.888	0.788
26	0.816	0.666
27	0.865	0.749
28	0.852	0.725
29	0.826	0.683
30	0.827	0.684

Table 5.21: Explained variance and reliability of the unrotated components (Mislevy & Block, 1990)

Factor	Variance	Reliability estimate
1	8.271	0.986

The next section presents the second order of exploratory factor analysis.

5.7 Emotional Intelligence Dimensions: Manager (New)

Table 5.22 Correlations: Emotional intelligence and Burnout: Individual and Manager

	BM_TOT_EFA	EIS_TOT_EFA	EII_F1_TOT_EFA	EII_F2_TOT_EFA
BM_TOT_EFA	1.000	-.180	-.433**	-434**
Pearson Correlation		.062	.000	.000
Sig. (2-tailed)				
N	108.00	108	108	108
EIS_TOT_EFA	-.180	1.000	.369**	.360**
Pearson Correlation	.062		.000	.000
Sig. (2-tailed)				
N	108	108.00	108	108
EII_F1_TOT_EFA	-.433**	.369**	1.000	.727**
Pearson Correlation	.000	.000		.000
Sig. (2-tailed)				
N	108	108	108.00	108
EII_F2_TOT_EFA	-434**	.360**	.727**	1.000
Pearson Correlation	.000	.000	.000	
Sig. (2-tailed)				
N	108	108	108	108.00

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5.21 shows that there are several significant correlations amongst the two emotional intelligence dimensions of the individual and burnout as well as the emotional intelligence of the manager. This section concludes the results for emotional intelligence dimensions for the officers and their supervisor. The following section presents the results for burnout.

5.8 Burnout

5.8.1 Reliability analysis of the measuring instruments

The psychometric properties of the EQ-i and the BM have very limited previous application within the South African context. Nunnally (1978) and Stevens (1992) suggest that cronbach alpha coefficients of between 0.50 and 0.60 are regarded as sufficient for research purposes, while coefficients of 0.80 and higher are regarded as ideal. Evidently, the internal consistency of all instruments used in this study is high. These results provide a positive indication of the reliability of the EQ-i and of the BM within the South African context.

Table 5.23: Reliability statistic for the BM

The BM	Mean	Std Deviation	Cronbach Alpha Reliability Coefficient	Evaluation based on Sekeran (2000)
Overall BM	59.67	21.256	.926	Good

A Cronbach Alpha coefficient was calculated for the BM. This was done to estimate the reliability coefficient for the overall BM. Table 5.23 illustrates the reliability coefficient for the BM which is .926 and is regarded as acceptable (Sekeran, 2000).

5.8.2 Exploratory Factor Analysis: Burnout-Individual

Pallant (2001) regards the KMO value of .6 and above as good. The Bartlett's Test value should be significant, that is the significant value should be .05 or smaller. In the EI: Individual Table (5.24), the KMO value is 0.91252 and the Bartlett's Test is significant (p>.000) therefore, the analysis is appropriate.

Table 5.24: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.91252
Bartlett's Test of Spherity	Approx. Chi-Square	1402.7
	df.	.210
	Sig.	.000010

The 21-item BM: Individual items of the BM were subjected to factor analysis using SPSS. Inspections of correlations revealed the presence of a correlation of .3 and above. The KMO value was .91252, exceeding the value of .6 (Kaiser, 1974), and the Bartlett's Test (Bartlett, 1954), reached statistical significance (p>.000) supporting factorability of the correlations.

The exploratory factor analysis revealed the presence of four factors with eigenvalues exceeding 1, explaining 67.504% of the variance. Note that the first factor explains a total of 45.744% of the total variance of 67.504% and the other factors the other 21.76% (see Table 5.25). These factors were extracted for further investigation. A further inspection using Horn's (1965) parallel analysis (Table 5.26) revealed a clear break after the first factor. It was then decided to retain one factor for further investigation. To aid in the interpretation of the one factor, oblique rotation was performed. The rotation solution presented in Table 4.27 revealed the presence of components showing a number of strong loadings of .6 and above, omitting loadings of .300, and all variables loading on only one factor. The one factor solution explained 45.744% of the variance respectively.

In the sample output, it is clear that Horn's (1965) parallel analysis indicates that the first eigenvalue from the actual data is larger than the corresponding first two 95th percentile and mean random data eigenvalues. However, the third eigenvalue from the actual data is less than the fourth 95th percentile and mean random data eigenvalue. This indicates a clear break after the first factor's variance as factor 1, capture much more of the variance than the remaining factors. Thus, from Table 5.25, factor 1 was retained, extracting only one factor and therefore retaining the factor.

In the rotated loading matrix, loadings of each of the variables on the two factors were selected. It should be noted that loadings lower than absolute .300 were omitted to maintain equal distribution values. The main loadings on factor 1 are 1-21. These results are displayed in the following tables.

Table 5.25: Explained variance based on Eigenvalues

Variable	Eigenvalue	Proportion of variance	Cumulative Proportion of variance
1	**9.60618**	**0.45744**	**0.45744**
2	**2.02605**	**0.09648**	
3	1.41744	0.06750	
4	1.12604	0.05362	
5	0.82762	0.03941	
6	0.68074	0.03242	
7	0.57924	0.02758	
8	0.56328	0.02682	
9	0.52107	0.02481	
10	0.51367	0.02445	
11	0.45817	0.02182	
12	0.42519	0.02025	
13	0.38690	0.01842	
14	0.34125	0.01625	
15	0.30643	0.01459	
16	0.27001	0.01286	
17	0.24624	0.01173	
18	0.21965	0.01046	
19	0.19382	0.00923	
20	0.15415	0.00734	
21	0.13688	0.00652	

Table 5.26: Parallel Analysis (PA) Horn (1965): Burnout: Individual

Variable	Real –data Eigenvalues	Mean of Random Eigenvalues	95 Percentile of Random Eigenvalues
1	**9.60618***	**1.88918**	**2.04788**
2	**2.02605***	**1.71801**	**1.82410**
3	1.41744	1.59068	1.69330
4	1.12604	1.48222	1.56326
5	0.82762	1.38680	1.46427
6	0.68074	1.30297	1.37115
7	0.57924	1.22300	1.29039
8	0.56328	1.14500	1.20690
9	0.52107	1.07509	1.13256
10	0.51367	1.00970	1.07015
11	0.45817	0.94274	0.99730
12	0.42519	0.87971	0.93743
13	0.38690	0.82046	0.87606
14	0.34125	0.76174	0.81866
15	0.30643	0.70539	0.76122
16	0.27001	0.64968	0.70125
17	0.24624	0.59709	0.64699
18	0.21965	0.54307	0.59011
19	0.19382	0.48652	0.53829
20	0.15415	0.42839	0.47983
21	0.13688	0.36276	0.42192

* Advised number of dimensions: 2

Table 5.27: Rotated Loading Matrix

Variable	F 1	F 2
1	0.645	
2	0.856	
3	0.379	
4	0.696	
5	0.787	
6	0.379	
7	0.698	
8	0.777	
9	0.787	
10	0.807	
11	0.814	
12	0.693	
13	0.669	
14	0.709	
15	0.753	
16	0.746	
17	0.675	
18	0.654	
19		0.606
20		-0.701
21	0.304	0.566

It can be seen that only a single factor solution was chosen due to cross-loadings of items based on the original parallel analysis.

Table 5.28: Unrotated Loading Matrix

Variable	F 1
1	0.655
2	0.859
3	0.395
4	0.705
5	0.791
6	0.387
7	0.702
8	0.786
9	0.792
10	0.809
11	0.805
12	0.687
13	0.667
14	0.694
15	0.748
16	0.744
17	0.674
18	0.638

Items 19-21 were below .3. Based on Table 5.28 it contains factor loadings below the cut-off of .3. As a result these items were removed during a second round of exploratory factor analysis for the burnout measure (BM). These results are displayed below.

5.8.2.1 Exploratory factor analysis: 1 Dimension: Burnout (New)

Pallant (2001) regards the KMO value of .6 and above as acceptable or good. The Bartlett's Test value should be significant, that is the significant value should be .05 or smaller. In the EI: Individual Table (5.29), the KMO value is 0.92222 and the Bartlett's Test are significant (p>.000) therefore, the analysis is appropriate.

Table 5.29: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.92222
Bartlett's Test of Spherity	Approx. Chi-Square df. Sig.	1296.1 .153 .000010

The revised burnout measure was subjected to a second round of factor analysis using SPSS. Inspections of correlations revealed the presence of correlation of .3 and above. The KMO value was .92222, exceeding the value of .6 (Kaiser, 1974), and the Bartlett's Test (Bartlett, 1954), reached statistical significance (p>.000) supporting factorability of the correlations.

Three eigenvalues exceeded 1, explaining 67.038% of the variance. Note that the first factor explains a total of 52.538% of the total variance of 67.038% and the other factors the other 14.5%. These factors were extracted for further investigation (see Table 5.30). A further inspection using Horn's (1965) parallel analysis (Table 5.31) revealed a clear break after the second factor. It was than decided to retain the first factor for further investigation. Oblique rotation was performed to aid in the interpretation of this factor. The rotation, solution presented in Table 5.32, revealed the presence of factors showing a number of strong loadings of .6 and above, omitting loadings of .300, and all variables loading on only one factor. The factor solution explained 52.538% of the variance, with a reliability estimate of unrotated factor amounting to .955 (Table 5.33) respectively.

In the sample output, it is clear that parallel analysis indicates that the first eigenvalue from the actual data is larger than the corresponding first two 95th percentile and mean random data eigenvalues, However, the second eigenvalue from the actual data is less than the third 95th percentile and mean random data eigenvalue. This indicates a clear break between the first and the second factor variance as factor 1 captured much more of the variance than the remaining factors. Thus, from Table 5.30, factor 1 was retained, extracting only one factor and therefore retaining the factor.

In the unrotated loading matrix, loadings of each of the variables on the two factors were selected. It should be noted that loadings lower than absolute .300 were omitted to maintain distribution values of .6 and above for two components. The main loadings on component 1 were 1-18. These results are displayed in the subsequent tables.

Table 5.30: Explained variance based on Eigenvalues

Variable	Eigenvalue	Proportion of variance	Cumulative Proportion of variance
1	**9.45711**	**0.52539**	**0.52539**
2	1.39840	0.07769	
3	1.21137	0.06730	
4	0.77118	0.04284	
5	0.68648	0.03814	
6	0.55930	0.03107	
7	0.52980	0.02943	
8	0.51258	0.02848	
9	0.46453	0.02581	
10	0.41263	0.02292	
11	0.38730	0.12152	
12	0.34325	0.01907	
13	0.29213	0.01623	
14	0.25219	0.01401	
15	0.22443	0.01247	
16	0.19660	0.01092	
17	0.16054	0.00892	
18	0.14018	0.00779	

Table 5.31: Parallel Analysis (PA) Horn (1965): Burnout (New)

Variable	Real –data Eigenvalues	Mean of Random Eigenvalues	95 Percentile of Random Eigenvalues
1	**9.45711**	**1.79493**	**1.95266**
2	1.39840	1.62397	1.72344
3	1.21137	1.49914	1.59715
4	0.77118	1.39575	1.47662
5	0.68648	1.30021	1.37105
6	0.55930	1.21609	1.28395
7	0.52980	1.13378	1.19826
8	0.51258	1.05906	1.11924
9	0.46453	0.98733	1.04648
10	0.41263	0.91980	0.97957
11	0.38730	0.85381	0.01332
12	0.34325	0.78918	0.84384
13	0.29213	0.72892	0.78517
14	0.25219	0.66612	0.71959
15	0.22443	0.60372	0.66029
16	0.19660	0.54215	0.60509
17	0.16054	0.47988	0.53976
18	0.14018	0.40617	0.46389

* Advised number of dimensions: 1

Table 5.32: Unrotated Loading Matrix

Variable	F 1	Communality
1	0.657	0.432
2	0.862	0.743
3	0.395	0.156
4	0.707	0.501
5	0.793	0.628
6	0.384	0.148
7	0.702	0.493
8	0.788	0.621
9	0.791	0.626
10	0.809	0.655
11	0.803	0.645
12	0.686	0.471
13	0.667	0.444
14	0.690	0.476
15	0.748	0.559
16	0.742	0.551
17	0.673	0.453
18	0.634	0.403

Table 5.33: Explained variance and reliability of rotated components (Mislevy & Block, 1990)

Factor	Variance	Reliability estimate
1	9.002	0.955

The next section reports on the multiple regression analysis.

5.9 Multiple Regression Analysis based on Exploratory Factor Analysis results

Multiple-regression analysis is used to explore the predictive ability of the independent

variable on the dependent variable (Pallant, 2001). The following table depicts a multiple regression analysis for the dependent and independent variables.

Table 5.34 Original Emotional intelligence and Burnout Dimensions

Variables Entered/Removed[a]

Model 1	Variables Entered	Variables removed	Method
1	SR_IND		Stepwise Criteria: (Probability-of-F-to enter<=.050, Probability-of-F-to-remove>=.100)

a. Dependent Variable:BM_TOT_EFA

Model Summary

Model 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.485[a]	.235	.228	2.24938

a. Predictors: (Constant), SR_IND

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	164.587	1	164.587	32.529	.000[a]
Residual	536.330	106	5.060		
Total	700.719	107			

a. Predictors: (Constant), SR_IND
b. Dependent Variable: BM_TOT_EFA

Coefficients[a]

Model	Understandized Coefficients		Standardized Coefficients	t	Sig.
	B	Std.Error			
1 (Constant)	11.609	1.012		11.474	.000
SR_IND	-.161	.028	.-485	-5.703	.000

a. Dependent variable: BM_TOT_EFA

Excluded Variables

Model	Beta	t	Sig.	Partial Correlation	Collinearity Statistics
					Tolerance
1 SA_IND	-.009[a]	-.060	.952	-.006	.353
MOT_IND	-.104[a]	-.630	.530	-.061	.269
EMPATH_IND	-.072[a]	-.561	.576	-.055	.442
SOCS_IND	.093[a]	.583	.561	.057	.287
SA_MAN	.026[a]	.268	.789	.026	.783
SR_MAN	-.047[a]	-.488	.626	-.048	.782
MOT_MAN	-.065[a]	-.654	.515	-.064	.731
EMPATH_MAN	-.035[a]	-.357	.722	-.035	.751
SOCS_MAN	-.086[a]	-.856	.389	-.084	.737

a. Predictors in the Model: (Constant), SR_IND
b. Dependent Variable: BM_TOT_EFA

5.9.1 Evaluating the Independent Variable: Emotional Intelligence

This evaluation determines to what extent emotional intelligence in the model contributed to the prediction of the dependent variable burnout. In this case the largest beta is .485, which is for self-regulation (Individual). This indicates that self-regulation of the individual provides the strongest contribution to explain the dependent variable, burnout. If the significant value (p-value) is less than .05, the self-regulation of the individual is said to make a significant unique contribution to the prediction of burnout. In this model, self-regulation of the individual made a unique and statistically significant ($p<.0005$) contribution to the prediction of burnout scores. The overall model explains 23.5% of the variance in burnout. The adjusted R square statistic corrects this value to provide a better estimate of the true population value. Thus, the overall model using the R square value explains 22.8% of the variance in burnout.

Furthermore, it should be noted that neither SA_Ind, Mot_Ind, Emp_Ind, Soc_Ind (Individual and Supervisor) made a unique contribution to the prediction of officers' burnout. However, it should be remembered that these beta values represent the unique contribution of each EI dimension, when the overlapping of all the other variables are statistically removed. In addition to the original dimensions a second round of multiple regression analysis was conducted and these results are subsequently presented.

5.9.2 Multiple Regression Analysis (New)

Table 5.35: Multiple Regression Analysis based on Exploratory Factor Analysis

Variables Entered/Removed[a]

Model 1	Variables Entered	Variables removed	Method
1	EII_F2_TOT_EFA, EIS_TOT_EFA, EII_F1_TOT_EFA[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: BM_TOT_EFA

Model Summary

Model 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.467[a]	.218	.195	2.29620

a. Predictors: (Constant), EII_F2_TOT_EFA, EIS_TOT_EFA, EII_F1_TOT_EFA

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	152.573	3	50.858	9.646	.000[a]
Residual	548.343	104	5.273		
Total	700.917	107			

a. Predictors: (Constant), EII_F2_TOT_EFA, EIS_TOT_EFA, EII_F1_TOT_EFA
b. Dependent Variable: BM_TOT_EFA

Coefficients[a]

Model	Understandized Coefficients		Standardized Coefficients	t	Sig.
	B	Std.Error			
1 (Constant)	11.675	1.208		9.663	.000
EIS_TOT_EFA	-.003	.085	-.003	0.33	.974
EII_F1_TOT_EFA	-.117	.060	-.248	-1.939	.055
EII_F2_TOT_EFA	-.102	.051	-.255	-2.000	.048

a. Dependent variable: BM_TOT_EFA

5.9.3 Evaluating the Independent Variable: Emotional Intelligence Dimensions

This evaluation determines to what extent the emotional intelligence dimensions in the model contributed to the prediction of the dependent variable burnout. In this case the largest beta is .467, which is for self-awareness and empathy of the individual. This indicates that self-awareness and empathy of the individual makes the strongest contribution to explain the dependent variable, burnout. If the significant value (p-value) is less than .05, the self-awareness and empathy of the individual is said to make a significant unique contribution to the prediction of burnout. In this model, EII_F2_TOT_EFA and EII_F1_TOT_EFA made a unique and statistically significant ($p<.0005$) contribution to the prediction of burnout scores. The overall model explains 21.8% of the variance in burnout. The adjusted R square statistic corrects this value to provide a better estimate of the true population value. Thus, the overall model using the R square value explains 19.5% of the variance in burnout.

5.10 Summary

This chapter presented the results of this study. Statistical and descriptive results were selected based on the research questions and hypotheses. Data were scrutinized to assure that all major assumptions of the statistics selected were met as outlined in chapter 4. All data were reported in a manner to protect the privacy of the participants. The analyses of the results are reported in the next chapter.

Chapter 6

Conclusions and Recommendations

6.1 Introduction

The aim of this chapter is to present the interpretation of both the theoretical and statistical information. Conclusions drawn are based on the basis of the literature reviews and the results of this empirical research. The limitations are discussed and recommendations for future research are provided. To facilitate this aim, the current chapter focuses on drawing conclusions on the following areas: Firstly, conclusions are drawn regarding the literature reviews and the psychometric properties of the measuring instruments used in this study. Secondly, conclusions for the exploratory factor analysis, correlational and multiple regression analysis for emotional intelligence and burnout are presented. Thirdly, the limitations of the literature review are reported. Finally, recommendations for future research are presented.

6.2 Conclusions regarding the literature review

6.2.1 Conceptualisation of Emotional Intelligence

The first aim was to conceptualise emotional intelligence and to identify key aspects discussed and highlighted in Chapter 3. The conclusion was drawn that emotional intelligence is regarded as a multifaceted construct and that there is no single accepted conceptualisation of or theory with regard to emotional intelligence. However several conceptualizations, supported by theories of what emotional intelligence is and what the concept actually encompass, appear to exist (Palmer & Jansen, 2004). Furthermore the two main conceptualisations in the literature are the ability and mixed models of emotional intelligence. The ability model approach defines emotional intelligence as an ability or competence that involves the appraisal, expression, regulation and utilisation of emotion. The mixed-model approach includes the ability to understand and process emotion that is mixed with some other characteristics such as: "one's

emotions, managing emotions..., motivating oneself..., recognising emotions in others..., and handling relationships" (Goleman, 1995, p.xii).

For the purposes of this research, the mixed-model approach to defining emotional intelligence was adopted, primarily because of the emotional intelligence instrument selected, the rater-version of the EQ-i as revised and developed by Rahim and Minors (2003). According to this framework, emotional intelligence can be conceptualised as the "... capacity for organising our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (Goleman, 1998, p.317).

Thus there are theoretical and utility differences between ability-based and mixed models of emotional intelligence. Despite the existence of distinct emotional intelligence models, all models aim to understand and measure key components of emotional intelligence. Palmer and Jansen (2004) believe that some conceptualisations of emotional intelligence lack sufficient scientific evidence to adequately substantiate their views. In contrast, Bar-On (1997) believes that models of emotional intelligence are said to be of potential value when studying, developing and understanding emotional intelligence.

6.2.2 Measurement of Emotional Intelligence

The second aim was to provide an overview of key issues in the measurement of emotional intelligence. This was achieved and discussed in Chapter 3. The conclusion was drawn that the existing assessment models and measures of emotional intelligence are characterised by the measurement approach followed: self-report and performance measures (Mayer, 2001). Self-report measures require respondents to report on their own levels of functioning which may lead to response bias (Kruger & Dunning, 1999) whereas performance measures require respondents to elicit responses against objective, predetermined criteria. In contrast, performance measures are less prone to response bias and share less overlap with personality traits (Matthews, et. al., 2002). In either case, self and other report measures are used within mixed models of emotional intelligence, while performance measures are used within ability models of emotional intelligence. Stone (2004) however, contends that self-report measures are

not necessarily derived from mixed models of emotional intelligence, and so is performance measures derived from ability models of emotional intelligence. The measurement approach utilised for this study was self-report. This is primarily due to the emotional intelligence instrument used namely, The EQ-i, and this instrument is based on the mixed model approach of emotional intelligence.

6.2.3 Overview of the psychometric properties of the EQ-i

The third aim was to provide an overview of the psychometric properties of the EQ-i. This was achieved in Chapter 4. The following findings resulted form previous research on the EQ-i's psychometric properties:

- Currently, there are very few South African research studies that have used Rahim and Minors's (2003) 30-item version of the EQ-i instrument. Van Staden's (2007) exploratory factor analysis yielded a single factor with a reliability estimate of .974.
- Schlechter, et. al., (2005) who used a 40-item version of the EQ-i on a South African sample, yielded a three-factor structure of the instrument.

Thus, it can be concluded that further investigation into the EQ-i (30-item) psychometric properties is required for the measure to be utilised in a variety of contexts in South Africa. Furthermore, evidence should be produced to illustrate the utility of the measure.

6.2.4 Conceptualisation of Burnout

The fourth aim was to conceptualise burnout and to identify key aspects. This was achieved in Chapter 2. The conclusion was drawn that there is no single accepted conceptualisation of or theory of burnout. However, two main distinct conceptualisations of burnout have been preferred. The most significant and accepted conceptualisation is that of Maslach and Jackson (1981) who define burnout as a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that occurs among individuals who work with people in some capacity. Another conceptualisation is that of Pines, et. al., (1981,

p.9) who defines burnout as “a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are emotionally demanding". For the purpose of this study, Pines, et. al., (1988) conceptualisation was adopted due to the burnout measure selected namely, The Burnout Measure. The Pines et. al., (1981) measure taps into the core dimensions of burnout which are also measured by Maslach (1982a).

6.2.4.1 Models of Burnout

Models of burnout were discussed and presented in Chapter 2. Golembiewski, et. al., (1998) suggested that the end state of burnout is closer to what Cherniss (1980a), Maslach and Jackson (1986) and Hobfoll (1989) proposed. They regarded burnout as a chronic condition that differs in the process through which the condition arises. In addition, irrespective of which model is selected to explain burnout, they provide ways to explain the burnout phenomenon.

6.2.5 Measurement of Burnout

The fifth aim was to provide an overview of key issues in the measurement of burnout. This was achieved and discussed in Chapter 2. The conclusion was drawn that burnout measures represent a method of assessing organisations to determine the extent to which the level of stress has exceeded employee resources. The development of prevention programs for enhancing employee resources remains a challenge. The burnout measuring instrument used in this study is a self-report, the Burnout Measure. Self-report measures require respondents to report their own levels of functioning (Kruger & Dunning, 1999), their burnout levels.

6.2.6 Overview of the psychometric properties of the Burnout Measure (BM)

The sixth aim was to provide an overview of the psychometric properties of the BM. This was achieved in Chapter 4. The following conclusions were drawn regarding the BM's psychometric properties:

- Valid norms for the BM are lacking (Pines & Aronson, 1988).
- The BM is regarded as a useful and reliable research instrument as it has demonstrated internal consistency coefficients ranging from 0, 91 to 0, 93. Test-retest reliabilities range from 0, 66 to 0, 89 (Pines & Aronson, 1988). Schaufeli and Van Dierendonck (1993) also reported reliability estimates ranging from .88 to .95.
- Confirmatory factor analysis studies of the BM are lacking (Cororan, 1985). However, Schaufeli and Van Dierendonck's (1993) confirmatory factor analysis showed that the BM measures the affective nature of burnout, which is often expressed as exhaustion.

Thus, it can be concluded that further investigation into the psychometric properties of the BM is required to determine its utility and usefulness within a South African context.

6.2.7 Integration of Emotional Intelligence and Burnout

The aim was to integrate the two constructs, emotional intelligence and burnout. This was achieved in Chapter 3. The conclusion was drawn that emotional intelligence has been identified as a moderator that could possibly buffer against the effects of burnout. Burnout is the result of a lack of emotional reserve to deal with emotionally charged situations (Thomas, 1989). High emotional intelligence would be regarded as a resistance to burnout (Farmer, 2004). Conceptual linkages that supported this conclusion include:

- Individuals with high emotional intelligence should be capable of managing emotional stressors and as a result are more likely to experience less burnout.
- Emotional intelligence competencies may also represent competencies that can protect the individual from the negative effects of workplace stressors, which may decrease the likelihood that the individual would suffer burnout.

Thus, the focus of this study was to determine the extent of emotional intelligence and burnout levels of officers in order to determine the indication of depicting the situation of officers in the SAPS.

6.3 Conclusions regarding the empirical study

Conclusions were drawn about emotional intelligence and burnout with specific reference to the results of the empirical investigation that was conducted.

6.3.1 Emotional Intelligence and Burnout

The following conclusions were drawn regarding emotional intelligence and burnout.

6.3.1.1 Psychometric properties of Emotional Intelligence: Individual

Cronbach alpha reliability coefficients were calculated for the original five dimensions of the EQ-i instrument. Coefficients reported were self-awareness (α=.871), self-regulation (α=.907), motivation (α=.872), empathy (α=.864) and social skills (α=.831). Sekeran (2000) regards these results as acceptable coefficients. Rahim and Minors (2003) study used the 35-item EQ-i version which found reliability estimates for the sub dimensions ranging from .62 to .98. When comparing the current study's psychometric properties with that of Rahim and Minors (2003), the alphas were within range. These estimates indicate that the emotional intelligence questionnaires are reliable and valid for the current study.

The next step was to conduct an exploratory, correlational and multiple regression analyses on the emotional intelligence dimensions. Results from the exploratory factor analysis revealed a two-factor structure of the emotional intelligence construct, for the factors 1 and 2. EQ-i factors that reside in the first factor are: items 1-11, 13, 15 and 16; and for the second factors are: items 12, 17 and 20-30. The factors the original EQ-i dimensions were considered to identify characteristics for. Characteristics that can be associated with factor 1 are: knowing one's internal states, preferences, resources and intuitions; and being self-aware of how emotions affect others and how to react including insight and self-understanding. Characteristics that can be associated with factor 2 are: the ability to understand and discern the emotions of others by seeing the situation from their perspectives. Thus, individuals are aware of what the other person feels and have the ability to monitor the effect of their own actions and that of others (Goleman, 1995; Rahim & Minors, 2003).

The results indicate that factor one can be labeled as self-awareness and factor 2 can be defined as empathy which may be regarded as key factors of the emotionally intelligent officer. Themes or possible competencies that emerged from the dimension for self-awareness are conscientiousness and trustworthiness. Furthermore, empathy themes and possible competencies included the understanding and developing of others, having service orientation, leveraging diversity and possessing a keen political awareness. These themes or possible competencies were then grouped together to eventually draw the conclusions which follow. Emotionally intelligent officers will be better equipped to derive meaning, interpret and act appropriately in dealing with their emotions and that of others when being faced with emotionally charged policing situations. These competencies may be regarded as an attribute which may impact the way officers' in the police environment and how they may relate to others with whom they interact.

In addition, Schlechter, et. al., (2005) who used the 40-item version of the EQ-i instrument within a South African study, yielded a three-factor structure of the instrument, for the factors of self-awareness, self-regulation and motivation. In another study Rahim and Minors (2003) found a three factor structure on the following dimensions: factor 1: self-awareness, factor 2: self-regulation and factor 3: empathy. These factors yielded about 65% of the variance in the current study. This study's exploratory factor analysis results for the individual supports two factors: self-awareness and empathy as highlighted by Rahim and Minors (2003) and Schlechter, et al. (2005). These two factors yielded about 59.11% of variance in the data. These factors provided some support for two of the five dimensions of Goleman's components.

The correlational and multiple regression analysis of the emotional intelligence dimensions for the individual yielded positive and very strong correlations among the dimensions ranging from ($r= 0.747$-0.876; $p>.01$; $N=108$) for self-awareness, self-regulation, motivation, empathy and social skills. These relationships are reflected conceptually as based on the EQ-i dimensions as the following:

- **Self-awareness and self-regulation**

The individual is aware of how emotion affects others and how he/she reacts. This self-awareness include strategies in controlling their reactions which result in appropriate behaviour to cope with external situational factors (Goleman, 1995; Rahim & Minors, 2003).

- **Motivation**

Individuals generally view themselves as possessing an optimistic outlook in life and about their future. They subsequently have the ability to view any failure as a temporary setback, accept criticism and learn from mistakes (Goleman, 1995; Rahim & Minors, 2003).

- **Empathy**

Individuals have the ability to understand and discern the emotions of the other person by seeing the situation from those perspectives. Thus, they are aware of what others feel and have the ability to monitor the effects of their own actions and that of others (Goleman, 1995; Rahim & Minors, 2003).

- **Social skills**

They also see themselves as having social skills and the ability to help others to manage their emotions (Goleman, 1995; Rahim & Minors, 2003).

Thus, emotionally intelligent officers will be emotionally enhanced to positively interpret, derive meaning and deal with, challenging emotionally charged or emotionally stressful situations.

In addition the most notable finding of the multiple regression analysis reported self-regulation of the individual (SR_Ind) to male a unique and statistically significant contribution to the prediction of burnout scores. The overall model explains 23.5% of the variance in burnout. The

adjusted R square statistic corrects this value to provide a better estimate of the true population value. Thus, the overall model using the R square value explains 22.8% of the variance in burnout. Officers' self-regulation of the individual dimension of the EQ-i, showed a significant link between emotional intelligence and burnout. This dimension was directly related to an officer's burnout levels, suggesting construct uniqueness. Importantly, self-regulation showed a reasonable effect on the relationship between emotional intelligence and burnout.

The next section reports on the results for the manager.

6.3.1.2 Psychometric properties of EI: Manager

Cronbach alpha reliability coefficients were calculated for the original five dimensions of the EQ-i instrument. Coefficients reported are self-awareness (α=.894), self-regulation (α=.922), motivation (α=.917), empathy (α=.931) and social skills (α=.938). Sekeran (2000) regards these as acceptable coefficients. These results indicate the emotional intelligence questionnaire, the EQ-i, is reliable and valid for the current study.

The next step was to conduct an exploratory factor analysis, correlational and multiple regression analyses on the emotional intelligence dimensions for the manager. Exploratory factor analysis for the EQ-i show that the characteristics that can be associated with factor one are the original dimensions of the EQ-i. The results indicate that factor one can be labelled as self-awareness, self-regulation, motivation, empathy and social skills which are key factors of the emotionally intelligent officer. In addition Van Staden's (2007) exploratory factor analysis yielded a single factor with a reliability estimate of .97 consisting of all 30 items with a reliability estimate of .974. This indicates that this study's results are consistent with other studies., The original five EQ-i dimensions (Goleman, 1995) to define factor one are as follows: Characteristics that can be associated with the *first two dimensions* are: the individual is likely to be aware of how emotion affects others and how they react. This includes strategies in controlling their reactions which results in appropriate behaviour to cope with external situational factors. Characteristics that can be associated with dimension *three* are: individuals view themselves as generally possessing an optimistic outlook on life in, about their future and

have the ability to view any failure as a temporary setback, accept criticism and learn form mistakes. Characteristics that can be associated with *dimension four* are: where the individuals see themselves as having the ability to understand and discern the emotions of the other person by seeing the situation from the other person's perspectives. Thus, they are likely to be aware of what others feel and perceive themselves as having the ability to monitor the effect of their own actions and that of others. Characteristics associated with *dimension five* are where they see themselves as having social skills and the ability to help others to manage their emotions (Goleman, 1995).

The results indicate that the EQ-i dimension associated with factor one can be labelled as self-awareness, self-regulation, motivation, empathy and social skills which may be regarded as key factors of the emotionally intelligent manager. Themes or possible competencies that emerged from these dimensions were conscientiousness; trustworthiness; achievement; optimism; conflict management; the understanding and developing of others; having service orientation; leveraging diversity and possessing a keen political awareness (See Chapter 2). These themes or possible competencies were then grouped together to conclude that emotionally intelligent supervisors will be better equipped to derive meaning, interpret and act appropriately in dealing with their emotions and that of others when being faced with emotionally charged policing situations. These competencies may be regarded as attributes which may impact the way the supervisor works in the police environment and how he/she may relate to others with whom they interact. This factor also reported a reliability estimate of .986.

The correlational analysis of the emotional intelligence dimensions found positive and very strong correlations among the dimensions ranging from ($r= 0.864$-0.934; $p>0.01$; $N=108$) for self-awareness, self-regulation, motivation, empathy and social skills. These relationships are reflected conceptually as based on the EQ-i dimensions (See Chapter 2) as the following:

- **Self-awareness and self-regulation**

The individual, who is aware of how emotion affects others and how he/she reacts, includes strategies in controlling their reactions which results in appropriate behaviour to cope with

external situational factors (Goleman, 1995; Rahim & Minors, 2003).

- **Motivation**

Individuals view themselves as generally possessing an optimistic outlook on life and about their future. They therefore have the ability to view any failure as a temporary setback, accept criticism and learn from mistakes (Goleman, 1995; Rahim & Minors, 2003).

- **Empathy**

Individuals have the ability to understand and discern the emotions of the other person by seeing the situation from that person's perspective. Thus, they are aware of what others feel and have the ability to monitor the effect of their own actions and that of others (Goleman, 1995; Rahim & Minors, 2003).

- **Social skills**

Individuals also see themselves as having social skills and the ability to help others to manage their emotions (Goleman, 1995; Rahim & Minors, 2003).

Therefore, emotionally intelligent supervisors will be emotionally adept to positively interpret, derive meaning and deal with challenging emotionally charged or emotionally stressful situations. Subsequently, emotionally intelligent supervisors will display these characteristics to officers they supervise.

The Pearson Product-Moment Correlation Coefficient was used to determine the nature of the relationship between the emotional intelligence dimensions of the officers' supervisor as perceived by officers and burnout. This relationship was measured with the EQ-i and the Burnout Measure respectively. There were moderate to strong negative correlations between total self-awareness ($r=.-206$, $p>0.01$), self-regulation ($r=.-263$, $p>0.01$), motivation ($r=.-299$, $p>0.002$), empathy ($r=.-268$, $p>0.005$) and social skills ($r=.-311$, $p>0.001$), [$N=108$,] with

officers' total burnout levels. This indicates the more officers view their supervisor as self-aware, self-regulating, motivated, empathetic and socially inclined, officers are less likely to experience burnt-out and vice versa. There were significant differences in the scores for low emotional intelligence and high burnout (M=38.16, SD=5.64) and high emotional intelligence and low burnout (M=33.49, SD=7.87; p<.001, SA_Ind). Evidently, there is a significant difference between individuals who experience high burnout that those who experiences low burnout. This result was found on all five of the individual dimensions associated with emotional intelligence.

In addition emotionally intelligent law enforcement supervisors play a significant role in leading by example and thereby impacting how their subordinate patrol officers will respond in stressful circumstances. The primary finding of this study was that the emotional intelligence and burnout levels of officers were correlated to the emotional intelligence levels of their supervisor. Emotional intelligence is regarded as an individual attribute and impacts the way in which an officer interacts within the police working environment and may or may not be related to the people with whom he/she deals with.

Burnette (2006) assumed that if police supervisory personnel have a direct influence on the attitudes and behaviours of their subordinates, and if emotional intelligence influences leadership effectiveness, then it should be possible to assume that the supervisor's emotional intelligence level would be linked to the emotional intelligence level of the officer. Harrison (2001) states that supervisory personnel provide direction, views, monitor and interact with those who are performing the core functions of policing. Engel and Worden (2003) suggest that researchers have determined that the front line supervisor of officers can directly influence the attitudes and behaviours of their subordinates. It can be assumed that officers have looked upon their supervisors as role models for the way in which stressful work situations should be managed and controlled. It could also be further assumed that a supervisor exhibiting high levels of emotional intelligence could provide a positive role model for the officer (Engel & Worden, 2003).

The fact that supervisors would be capable of managing subordinates and the responding of his/her superior officers would indicate a capacity to:

a) Appraise one's own emotions and effectively express those emotions to others;
b) Recognise emotional responses in others, empathetically gauge the appropriate affective response, and choose the most socially adaptive behaviour in response;
c) Regulate and enhance one's own mood and the mood of others thereby motivating others towards the accomplishment of a particular goal; and
d) Solve problems by integrating emotional considerations when choosing alternatives to a particular problem or issue (Salovey & Mayer, 1990).

When supervisors are able to manage their own emotional responses in stressful police work situations, they potentially have a basis for exhibiting higher levels of emotional intelligence than their officers. Additionally, the supervisors would have to deal with stress-inducing circumstances beyond those faced by their officers.

Emotionally intelligent officers would thus be capable of resisting the pressures and burden of burnout. As a result they are more likely to enjoy their jobs and feel a sense of self-actualisation in their policing career. It should also be determined to enhance the emotional intelligence of the supervisor as it has a direct impact on the emotional intelligence of officers via receiving training which could yield benefits within the police environment.

6.3.1.3 Psychometric properties of Burnout: Individual

Cronbach alpha reliability coefficients were calculated for the five dimensions of the BM instrument. A reliability coefficient of .926 was reported. Pines and Aronson (1988) reported internal coefficients of 0.91 to 0.93. Test-retest reliability coefficients ranged from 0.66 to 0.89. Schaufeli and Van Dierendonck (1993) also reported reliability estimates ranging from .88 to .95. Sekeran (2000) regards these reliabilities as acceptable. These results indicate that the burnout questionnaire, the BM is reliable and valid for the current study.

An exploratory factor analysis was conducted on the burnout dimension. The exploratory factor analysis results yielded a single factor, consisting of all 18 items. The BM is conceived as a one-dimensional measure and questionnaire yielding a single composite burnout score. Schaufeli and Van Dierendonck's (1993) confirmatory factor analysis showed that the BM measures the affective nature of burnout, which is often expressed as exhaustion. This study's exploratory factor analysis reported a reliability estimate of .955.

The correlational analysis of the burnout dimension showed that the relationship between emotional intelligence dimensions and burnout of officers showed strong negative correlations between total self-awareness (r=.-393, p>0.01), self-regulation (r=.-485, p>0.01), motivation (r=.-442, p>0.01), empathy (r=.-394, p>0.01) and social skills (r=.-383, p>0.01), [N=108,]. Thus the more self-aware, self-regulate, motivated, empathetic and socially inclined officers were, the less likely they were to experience burnout. Ciarrochi et. al. (2002) contends that emotionally perceptive people appear to be less impacted by burnout, expressing low levels of burnout that are accompanied by high levels of emotional intelligence. Ciarrochi et. al., also reported that emotionally perceptive people are more impacted by stress than compared to others. Thus, they are more likely to suffer from burnout.

In conclusion, the objective of this study was to determine whether there is a statistical significant correlation between an officer's emotional intelligence and burnout levels. The reason was that emotional intelligence is an important resource that supports employees in their efforts to cope with emotional and time demands of their service work as well as with states of emotional dissonance (Giardini & Frese, 2006).

In this section, the results of the statistical techniques used to test this study's hypotheses was presented and interpreted. The results indicated that emotional intelligence is negatively and statistically significantly related (at the 0.01 level) to burnout: self-awareness (r=.-393, p>0.01), self-regulation (r=.-485, p>0.01), motivation (r=-.442, p>0.01), empathy (r=-.394, p>0.01) and social skills (r=-.383, p>0.01). In terms of Guilford's guidelines (Tredoux & Durrheim, 2002), the relationship between emotional intelligence and burnout displays and effect size classified as a definite but small relationship. These results indicate that officers

with an overall high emotional intelligence score would possess low levels of burnout.

Officers are considered to be at high risk for burnout due to the nature of police work. The skills that a police officer needs to demonstrate includes the ability to decised quickly and accurately, the ability to favourably interact with the community and to observe, retain and recall detailed information. However, these skills are affected when the officer experiences feelings of stress and burnout (Goodman, 1990). One variable that might help officers with these skills is emotional intelligence (Levert, et. al., 2000; Mayer & Salovey, 1997). Farmer (2004) suggests if emotional intelligence has a negative relationship with burnout, it is essential for individuals to develop or enhance their emotional intelligence, as high emotional intelligence would be regarded as a resistance to burnout. This would also mean that individuals with high emotional intelligence, having the ability to perceive, use, understand and manage emotions would be less likely to experience burnout as evident by the current study.

The current study's findings are congruent with Slaski and Cartwright (2003). They proposed emotional intelligence could serve as a moderator in the stress process that precedes burnout. In this study that was not the purpose. However support was found in that individuals with high emotional intelligence will perceive work experiences as less stressful, have health consequences and thus will possess the ability to effectively cope with environmental demands (Bar-On, 1997a). Since officers believe that they are emotionally intelligent, they would be expected to be emotionally prepared in dealing effectively with stressful police work and thus, are likely to experience less burnout.

Ricca (2003) points out that emotional intelligence does contribute to the reduction of burnout and controlled stress in police officers respectively. Emotional intelligent officers would be capable to respond appropriately to critical incident situations that are highly charged and extremely volatile as highlighted by Mostert and Joubert (2005) and Connizzo and Liu (1995). Burnette (2006) also highlights that emotional intelligent police officers may have an added value of being better able to resist the pressures and the burden of stress as they would be capable of resolving stressful emotions in their professional and personal lives; thereby limiting the potential dilemmas faced of having poor health and in return experiencing burnout.

Ricca (2003) found that the more competent police officers are in being aware of their emotions, understanding and managing their emotions, the less frequently they experience job burnout. Ricca's (2003) findings also demonstrated that emotional intelligence contributes to reducing burnout and controlling stress in police officers. It would also appear that emotional intelligence would aid police officers in responding appropriately to critical incident situations that are highly charged and extremely volatile. In light of these discussions and conclusions, the following hypotheses were retained:

H1: There is a statistically significant correlation between emotional intelligence and burnout levels of police officers.

H2: There is a statistical significant difference between police officer with high and low emotional intelligence levels in terms of their burnout.

H3: There is a statistical significant correlation between emotional intelligence of the officer and burnout.

H4: There is a statistical significant correlation between the manager emotional intelligence of the manager and burnout.

The above sections conclude the statistical analyses of the findings for this study. The following sections highlight the limitations and recommendations of this study.

6.4 Limitations of the research

The limitations of the study are outlined below.

6.4.1 Sample

The results of this research cannot be generalised to the broader population of police officers within the SAPS in South Africa as the research was conducted within the metropole areas in the Western Cape. In addition, the reduced sample size minimized the generalisability of the findings.

Sine the majority of the respondents' demographics were younger than 34 years if age and were coloured, it has an impact on the generalisability of the results to the broader population.

Another limitation of this study is that with reference to the SAPS, a supervisor's emotional intelligence has a direct correlation with the emotional intelligence and burnout levels of officers. This conclusion is only significant to the interaction between the officer and their supervisor.

A final limitation concerns the potential context specificity of the results. This study solely focused on police officers in the law enforcement environment. Research in other service areas could possibly yield different results.

6.4.2 EQ-i

The EQ-i has been designed and validated within an international context. Very few South African studies appear to exist (Schletcher et. al., 2005; Rahim & Minors, 2003, Van Staden, 2007). Thus, more research studies are needed.

The next section reports on the recommendations highlighted for this study.

6.5 Recommendations

The following recommendations for future research are outlined below.

Based on the results of this research, the researcher has considered the following recommendations:

The current study tried to answer whether police officers have the skills required to develop and maintain their own emotional balance to deal with their stressful occupation. Some support is provided in this study. As Nikolaou and Tsaousis (2002) point out, those professionals with high emotional intelligence suffer less stress that is related to occupational stress. This in return might be due to opportunities provided to them to better equip them with emotional intelligence competencies using emotional intelligence training initiatives that they can use to protect against stress which also decreases the likelihood of experiencing and suffering burnout (Cipriano, 2002).

Although emotional intelligence continues to receive plenty of attention in the literature and is accompanied by promising research findings (Ricca, 2003), few studies have examined the construct with reference to the law enforcement environment.

It is obvious that more research is needed surrounding the issues of emotional intelligence of officers and that of their supervisors. The policing profession may reap rewards and benefits in doing police work and to enhance the profession in eliciting appropriate emotional responses. One way of achieving this is to promote the use of emotional intelligence training to reduce police burnout. These are motivations for continued research endeavours into the field of emotional intelligence and the policing profession.

If emotional intelligence is related to the officer would group intelligence exist? Caruso and Salovey (2004) suggest that emotional contagion effect are being used as an effective tool by emotionally intelligent leaders or a group member to motivate people towards a common goal or positively or negatively impacting the emotional state of others of a specific group.

It has become clear that using an ability-based emotional intelligence instrument may more accurately depict the capabilities of both the officer and the supervisor regarding their emotional intelligence. It is recommended that future studies compare ability-based and mixed-models of emotional intelligence in the South African context.

6.5.1 Recommendations for Industrial Psychologists working in the field of emotional intelligence and burnout

Given the potential benefits that are associated with emotional intelligence in combating burnout within the police profession, police officers should be empowered to harness the advantages of emotional intelligence within the workplace. This could be done through developing interventions such as introducing training initiatives that aim to improve those emotional intelligence dimensions or competencies where officers are weak. It is thus the practitioners role such as industrial psychologists or any other professionals within the helping profession to help individuals understand how to correct and improve their emotional intelligence in such a way as to enhance their ability to interact with others with greater emotional intelligence (AMEX Program, 2003). Boyatzis et. al., (1999) states that another benefit would be to increase a person's ability to cope effectively with the emotions encountered in the workplace while supporting the development of emotional intelligence competencies.

Furthermore, Stone (2004) states that for Industrial Psychologists to harness emotional intelligence to predict the future functioning of police officers, to identify those who are most likely to experience problems because of weaknesses in emotional skills, and to evaluate the effectiveness of emotional intelligence development interventions, emphasis should be placed on research of using valid and reliable emotional intelligence instruments.

6.5.2 Recommendations for future research

Emotional intelligence research does not demonstrate a relationship between emotional intelligence of a supervisor compared to their subordinates. Future research endeavours may explore this relationship bettering order to have an enhanced understanding of the antecedents and correlates of the South African supervisor's emotional intelligence within a police environment. Researchers may also consider doing pre-and post-testing of emotional intelligence of officers in relation to other ranks of police officers. Analyses may then be conducted to determine if a change occurred in their scores as a result of the change in police officers.

Future research may consider pre-testing the emotional intelligence levels of officers and their supervisors to determine whether a change in the emotional intelligence score of officers would result in the change of the emotional intelligence scores of their supervisors. Burnette (2006) states that the capacity for law enforcement officers to maintain control of his/her emotions, to assist in the de-escalation of stressful situations, could be regarded as a valuable asset in all police personnel. Recognising and appreciating the impact that people demonstrating high emotional intelligence can have in and on emotionally explosive conditions, is an attribute most police agencies would desire in their personnel. Determining whether the emotional intelligence of a supervisor could potentially contribute to the emotional intelligence of a subordinate may perhaps be a significant concern to the law enforcement community and deem further investigation.

This study should be replicated by substituting different burnout and emotional intelligence instruments to investigate the relationship between these variables and should include other variables and broaden the sample to reflect a more balanced representation.

Thus, research studies in the field of emotional intelligence can improve the understanding of the phenomenon to this profession and can directly contribute to better policing. In addition, the focus is on determining the extent to which emotional intelligence and burnout levels serve as an indication of the situation in the SAPS. Results can be used for determining proactive

development of adaptive competencies for optimal functioning in the workplace.

6.6 Summary

This study was based on the premise that emotional intelligence may be regarded as a buffer in dealing with burnout. Previous research has demonstrated significant research findings in support of this premise. Thus, the current study contributed to some extent to the body of literature and knowledge of the relationship between emotional intelligence and burnout. Factor analysis provided some support for two and one dimensions of Goleman's (1995) components for both the individual and the manager. The Pearson correlations, exploratory factor analysis and the multiple regression analysis provided partial support for the three hypotheses, which suggested that the components of the EQ-i are positively and negatively associated with burnout. Emotional intelligence is, nevertheless regarded as an important attribute and skill that can serve the officers and their supervisor very well in fulfilling their police related duties. Officers with high emotional intelligence are capable of managing their own emotions, understanding and responding appropriately to the emotions of others thus, exhibiting flexibility and adaptability within their personal and professional lives (Salovey and Mayer, 2004).

Police work is regarded as a highly stressful profession that can produce highly charged emotional circumstances. Police officers have typically looked to their supervisors as their role models in which they could handle certain situations. Thus it is to believe that an officer's supervisor exhibiting high emotional intelligence levels could provide a positive role model for his/her officer to imitate. Ricca (2003) highlighted that emotional intelligence does contribute in the reduction of burnout and controlling stress of police officers. It would also appear that emotional intelligence would aid police officers in responding appropriately to critical police situations that are highly volatile. Emotional intelligence in police officers and that of their supervisor would therefore appear to be a desirable option to explore for law enforcement in general.

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Appendix A: Informed Consent Form

INFORMED CONSENT FORM

RESEARCH STUDY: BURNOUT AND EMOTIONAL INTELLIGENCE

1. You are fully aware of the reason of the research study.

2. Your involvement in this research project is voluntary.

3. You are not obliged to divulge information you are not comfortable with or do not have the authority to answer.

4. You will complete all questionnaires honestly and to the best of your ability.

5. Completed and accurate biographical information will be supplied.

6. Information supplied will be treated as confidential.

7. Results will be made known to the SAPS and kept by the UWC.

8. Anonymity will be assured as no personal identification will be required.

9. You as the participant have the opportunity to ask the researcher questions about the research study.

10. You are aware that the researcher is bound by the ethical code of conduct as set out by the Health Professions Council of South Africa (HPCSA), to treat information supplied as confidentially and ethically.

Should you have any queries about the research study, do not hesitate to contact the researcher.

I understand the contents of this document and agree to participate in this research study.

Signature: _____

Date: _____

Place: _____

WE APPRECIATE YOUR WILLINGNESS AND INVOLVEMENT IN THIS RESEARCH STUDY.

THANK YOU FOR YOUR PARTICIPATION