

**PERSONALITY TRAITS AND RESILIENCE AS PREDICTORS OF JOB STRESS AND
BURNOUT AMONG CALL CENTRE EMPLOYEES**

By

Shannon Lamb

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Supervisor: Prof. C.L. Bester

Co-supervisor: Prof. M. Kotze

I declare that the dissertation hereby handed in for the qualification Master Social Sciences at the University of the Free State, is my own independent work and that I have not previously submitted the same work for a qualification at/in another University/faculty.

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Shannon Lamb

November 2009

I, Shannon Lamb, concede copyright of this study to the University of the Free State.

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November 2009

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CHAPTER 1

PROBLEM STATEMENT AND AIM OF THE STUDY

In this section the focus will be on the background of the problem statement, the problem formulation, the research question, objective as well as the hypothesis.

1.1 Introduction

The South African Government launched a campaign in 1998 to create a suitable and conducive environment for the call centre industry in South Africa, and South Africa also has a competitive edge because of its effective infrastructure, good command of English language, sound business policies, and cultural diversity (Ngobeni, 2009). Gold and Roth (1993) state that research has consistently shown that people in the helping profession have significantly higher levels of stress and burnout. Frequently, call centre employees experience job stress as a result of the conflicting demands of the company, supervisors, and customers (DeRuyter, Wetzels & Feinberg, 2001).

Maslach (1982) states that burnout can occur among individuals who do “people work” of some kind, and that burnout is a result of the constant emotional strain of dealing extensively with people who have problems. Burnout commonly involves physical, emotional, spiritual, intellectual and interpersonal exhaustion (Paine, 1982). Smith, Jaffe-Gill, Segal and Segal (2007) state that the signs of burnout tend to be more mental than physical and they can include feelings of frustration, powerlessness, hopelessness, failure and despair. Carroll and White (1982) state that one of the signs of burnout is a significant deterioration in the quality of service provided to clients. The person who has burnout has negative feelings and attitudes about clients and therefore provides a minimal level of care at best (Carroll & White, 1982). Other signs include poor staff morale, a hostile working manner, increased absenteeism, higher staff turnover and increased accidents on the job (Carroll & White, 1982).

According to Foxcroft and Roodt (2005) the person-environment-fit approach focuses on the fact that successful work adjustment depends on a correct match between an individual's characteristics and the characteristics of the working environment. A poor fit between the characteristics of the person and the characteristics of the job will lead to reduced employee wellbeing (French, Caplan & Harrison, 1982). Industrial psychologists have recognized that personality traits make a difference in handling stressful work situations, and several psychologists have emphasized personality traits as feasible predictors of job burnout. These include extraversion, conscientiousness, and neuroticism (Kim, Shin & Umbreit, 2000). According to Schultz and Schultz (1998) an individual's ability to tolerate stress is influenced by a number of personality traits, such as hostility, anger, time urgency, locus of control, self-esteem and competitiveness. Research conducted in South Africa by Swanepoel and Oudtshoorn (1988) showed that emotional stability, realism and conscientiousness is associated with lower levels of stress. Ghazinour, Richter, Emami and Eisemann (2003) agree with this, stating that personality traits such as introversion, neuroticism, perfectionism and low self-esteem have a significant impact on the development of job stress (Jaffe-Gill et al., 2007). With regard to burnout, research conducted by Bakker, Van Der Zee, Lewig and Dollard (2006) found that emotional exhaustion is predicted by emotional stability, depersonalization is predicted by emotional stability, extraversion, and openness to experience and personal accomplishment is predicted by extraversion and emotional stability. However Jensen (2008) found that neuroticism was a significant predictor of emotional exhaustion. A study conducted by Zeng and Shi (2007) found that agreeableness and emotional stability were effective predictors of emotional exhaustion.

Maslach (1986) states that internal qualities of individuals determine how some people handle external sources of stress and help explain why certain people will experience burnout in a certain work setting, while others will not. Research conducted by Storm and Rothmann (2003) showed that emotional stability, extroversion, openness to experience and conscientiousness are associated with constructive coping strategies, such as positively reinterpreting stressful situations and acceptance of stressors.

According to Arehart-Treichel (2005) the essence of resilience is the ability to rebound from stress effectively and to attain good functioning despite difficulty. Common characteristics of resilient individuals include task commitment, verbal ability, intelligence, ability to dream, desire to learn, maturity, internal locus-of-control, risk-taking, and self-understanding (Bland, Sowa & Callahan, 1994). According to Griffith (2007) resilience is the ability to adapt to adversity and stress.

1.2 Problem statement

The call centre industry employs around 100 000 people in South Africa, and has potential to grow even further (Ngobeni, 2009), however studies have showed that working in a call centre is stressful (Taylor, Baldry, Bain & Ellis, 2003) and exposure to stress over a long period of time is the main cause of burnout (Louw & Edwards, 1998). This may lead to a decrease in productivity, anxiety, lower morale, poor customer service, poor staff morale, a hostile working manner, increased absenteeism, higher staff turnover and increased accidents on the job (Carroll & White, 1982).

Individuals differ dramatically in their response to a problem or a stressor, as some people are born with a temperament that predisposes them to higher or lower levels of tolerance to stress (Martin, 2006). Previous research has shown that certain personality traits could render an individual more susceptible to the effects of stress and burnout (Kim et al., 2000; Renck, Weisæth & Skarboè, 2002; Van den Berg, Bester, Janse van Rensburg-Bonthuyzen, Engelbrecht, Hlope, Summerton, Smit, du Plooy & van Rensburg 2006). The individual characteristic of resilience has also been frequently associated with positive emotions, especially when the individual is experiencing a taxing event (Philippe, Lecours & Beaulieu-Pelletier, 2009). Research conducted by Carvalho, Calvo, Martín, Campos and Castillo (2006) also showed that individuals with higher levels of resilience are less vulnerable to burnout. Burnout has been accepted as a pervasive “phenomenon”, which prevents workers from delivering quality work, and interventions will become more important (Paine, 1982). According to French, Caplan and Harrison (1982) personnel selection procedures is an important

way of improving the person-environment fit, and a poor fit between the characteristics of the person and the characteristics of a job could easily lead to reduced employee wellbeing (French et al., 1982). According to Coetzer and Rothmann (2006) previous research has showed that work-related stressors can have a wide range negative impact on the individual and the organisation. Such as job dissatisfaction and psychological and physical harm for employees (Paine, 1982) and high turnover rates (Wharton, 2003).

According to van Dyk (2007) burnout is a factor to be concerned about in South Africa, as South African call centres rank amongst those with the highest degree of overall performance monitoring and feedback. Burnout is also a common problem amongst other occupations in South Africa, and is often exacerbated by uncertainty and the constant need for adaptation, as well as the high level of workload (Couper, 2005). Research conducted in the North West Province of South Africa showed that burnout influences ill-health, therefore mediating the effect of job characteristics on physical and psychological ill-health (Montgomery et al., 2005). Principal conclusions of research conducted by Taylor et al. (2003) are that the distinctive characteristics of a call centre is a major cause of occupational ill-health and effective remedial action would involve radical job re-design.

In light of the above mentioned information, it is clear that specific personality attributes and resilience enable employees to manage job stress and burnout more effectively. As South Africa is fast becoming a favoured call centre destination, it is important to identify these personality attributes by virtue of a literature study and subsequently put them to the test.

1.3 Research questions

Based on the above background, the following research questions can be set:

- What is the current level of burnout among employees of a call centre in Bloemfontein?
- What is the current level of job stress among employees of a call centre in Bloemfontein?

- Are there specific personality traits that could be valid predictors of the ability of employees of a call centre to manage job stress and burnout effectively?

1.4 Research objectives

To determine by means of a non-experimental research design the current level of job stress and burnout of employees at a call centre in Bloemfontein and if specific personality attributes, including resilience, enable employees to manage job stress and burnout effectively.

1.5 Research hypotheses

1.5.1. Null Hypothesis (H₀): There is no linear relationship between the scores on personality traits and job stress among employees at a call centre in Bloemfontein.

Alternative Hypothesis (H₁): There is a linear relationship between the scores on personality traits and job stress among employees at a call centre in Bloemfontein.

1.5.2. Null Hypothesis (H₀): There is no linear relationship between the scores on personality traits and burnout among employees at a call centre in Bloemfontein.

Alternative Hypothesis (H₁): There is a linear relationship between the scores on personality traits and burnout among employees at a call centre in Bloemfontein.

1.5.3. Null Hypothesis (H₀): There is no linear relationship between the scores on resilience and burnout among employees at a call centre in Bloemfontein.

Alternative Hypothesis (H₁): There is a linear relationship between the scores on resilience and burnout among employees at a call centre in Bloemfontein.

1.5.4. Null Hypothesis (H₀): There is no linear relationship between the scores on resilience and job stress among employees at a call centre in Bloemfontein.

Alternative Hypothesis (H₁): There is a linear relationship between the scores on resilience and job stress among employees at a call centre in Bloemfontein.

1.6 Outline of the study

This chapter has laid down the background and motivation for this research, while the problem statement, research questions, research objectives and research hypothesis were stated.

Chapter 2 encompasses a literature review on the variables personality and resilience. The nature and definition, and determinants of personality are highlighted, as well as the theories behind personality. The various approaches to resilience, contributing factors to the development of resilience and the benefits of resilience are also discussed.

Chapter 3 contains a literature review on job stress and burnout. The nature, theories, causes and symptoms of job stress and burnout are discussed, as well as personality variables that contribute to effective management of job stress and burnout.

Chapter 4 covers the major aspects regarding the research methodology used in this study. That includes the selection of the sample, the gathering of the data, the measuring instruments and the statistical analysis.

The results are reported, explained and interpreted in chapter 5. This is followed by general conclusions regarding the outcomes of the study, the limitations and value of the study, as well as recommendations that result from the conclusion.

CHAPTER 2

PERSONALITY AND RESILIENCE

2.1 Introduction

As Tyler (2004) states, prior to embarking on a study of personality it is necessary to consider what personality is and how it develops; therefore this chapter will highlight various definitions of the term *personality*. There are a broad range of factors that are involved in shaping personality (O'Neil, 2006), so a number of these factors that determines personality will be discussed including hereditary factors, socio-cultural determinants, unconscious mechanisms, and cognitive processes. During the past century, theories of personality have been flourishing (Laher, 2007) and it is important to explore the various views. Theories that are highlighted in this chapter include the depth psychology approach, the learning theory approach, the humanist approach, dispositional theories, psychodynamic theories, dimensional approach, and the trait and factor approach. Cattell has made one of the most comprehensive approaches to personality (Lindzey, 1967) and this contribution to the understanding of personality and the development of the big five approach is discussed.

Due to the fact that resilience could also be regarded as a predictor of job stress and burnout, (Campbell-Sills et al., 2006), the nature and definitions of resilience is also included in this chapter.

2.2 Nature and definitions of personality

In everyday situations people respond in different ways. Many of these differences are stable and enduring in a person such as the way one thinks, feels and acts week after week, year after year. These lasting characteristics are called personality (Edwards, 1998). According to Nicholas (2003) a way of understanding personality is to compare it to a person's thumbprint – each is unique. Each personality has its own configuration of aspects that give the person distinctiveness in all facets of expression. Although some people may

seem similar with respect to their personality features, they are individually configured.

Cattell defined personality as “that which predicts behaviour, given the situation” (Cattell, 1946, p. 566). Morris and Maisto (2002) state that personality is the unique pattern of thoughts, feelings and behaviour that seems to persist over time and across various situations. The unique differences referred to above are aspects that distinguish an individual from everyone else. The aspect of personality persisting over time and situations suggest that personality is relatively stable and enduring. Sadock and Sadock (2003) describe personality as a global descriptive label for a person’s observable behaviour and people’s subjectively reportable inner experience. The wholeness of an individual described in this way represents both the public and private aspects of the individual’s life.

Nicholas (2003) goes on to say that this is understandable, as no two people live the same life or are exposed to the same experiences from the day of birth. Personality is a term that includes the unique composition of a person’s likes and dislikes, attitudes, thoughts, emotions and behaviour. Although a person’s personality may be stable over time, it is also dynamic as it characterises everybody’s unique adjustment to any given situation (Nicholas, 2003). O’Neil (2006) states that an individual’s personality is the compound of mental characteristics that makes them unique from other people. This includes all of the patterns of thought and emotions that causes individuals to do and say things in particular ways. Some people experience the most horrifying traumas imaginable and emerge psychologically healthy, for others even relatively mild stressful events are sufficient to produce a full-blown disorder. It is therefore necessary to take into account personal factors that can render individuals more or less vulnerable to stress. A stressful situation can ruin the health of one worker, and have no noticeable effect on a co-worker (Schultz & Schultz, 1998). Some people are born with a personality that predisposes them to higher or lower levels of tolerance to stress (Martin, 2006).

According to Schultz and Schultz (1998) an individual's ability to tolerate stress is influenced by a number of personality factors, such as hostility, anger, time urgency, locus of control, self-esteem and competitiveness. Ghazinour, Richter, Emami and Eisemann (2003) agree with this, stating that personality traits such as introversion, neuroticism, perfectionism and low self-esteem have a significant impact on the development of job stress (Jaffe-Gill et al., 2007). Industrial psychologists have also recognised that personality traits make a difference in handling stressful work situations, and several psychologists have emphasized personality traits as feasible predictors of job burnout. These include, among others, extroversion, conscientiousness, and neuroticism (Kim et al., 2000).

From the above information, it can be concluded that though some personalities may seem similar, every personality is unique and different, remaining stable over time. Personality is the sum total of a person's physical, psychological, and spiritual attributes that enables a person to predict how people would behave in specific circumstances. Various environmental as well as internal factors contribute to the uniqueness of each personality and a discussion of these determinants follow next.

2.3 Determinants of personality

According to O'Neil (2006) there are many potential factors that are involved in shaping personality. Although a newborn infant might not be seen as having a personality as such, it is safe to say that infants do differ from each other. Personality is a process, a developmental phenomenon (Donelson, 1973) that develops over time. The following are determinants of personality.

2.3.1 Hereditary and genetic factors

O'Neil (2006) states that research conducted by psychologists over the last several decades has increasingly showed that hereditary factors are important, especially for basic personality traits such as emotional tone. Plomin, Chipuer, and Loehlin (1990) state that genetic factors are vital in the origins of individual differences in personality. As early as the 1860's, scientists have claimed to be able to demonstrate that intellectual abilities are

genetically transmitted. In 1969 a British scientist, Sir Francis Galton, observed a small number of British families and concluded that intellectual giftedness was genetic. Galton failed to take into account the environmental factors such as the type of education the various families could afford (Edwards, 1998).

Psychologists who are interested in the field of genetics study how behaviour may be linked to underlying hereditary or genetic factors. Each human cell has 46 chromosomes (except the sex cells which have 23) and it is along these chromosomes that genes are found, and it is in these genes that hereditary characteristics are found. Experts agree that physical characteristics are passed through these genes from generation to generation. Some experts believe behavioural characteristics, just like physical characteristics, are also passed on from generation to generation (Avis, Pauw & van der Spuy, 1999). According to Plomin et al. (1990) research suggests that the genetic influence on personality is not only significant, but also substantial.

Researchers have gone so far as to breed emotional rats and unemotional rats in order to investigate if personality is genetically determined. The researchers then went on to give the offspring of emotional rats to mothers who were unemotional and vice versa. When the rats grew up, they behaved like their biological parents rather than like their foster parents. Similarly, it was found that adopted children are more like their biological parents than their adoptive parents on several of Cattell's personality factors. There is also evidence for a significant degree of genetic determination of the big five personality factors (Edwards, 1998). Carl Jung deviates from modern biology because Carl Jung believes that in addition to an inheritance of biological instincts we also inherit our ancestors "experiences" (Hall & Lindzey, 1967).

2.3.2 Socio-cultural determinants

Henry Murray said that people are a product of their social and cultural environment (Hall & Lindzey, 1967). According to Donelson (1973) the family can provide a social security that supports the development of an individual.

Similarly, peer groups provide a social setting in which an individual may find support for being themselves and develop a sense of self. O'Neil (2006) states that the acquirement of values, beliefs, and expectations seem to be due to socialisation and unique experiences, especially during childhood.

However, pressure from both peer groups and family groups could exert a negative influence on the individual by hampering development of self and encouraging them to be superficial and never allowed to be themselves. The social and cultural relationships a person forms allow potential for developing a sense of individuality, which is their personality (Donelson, 1973). O'Neil (2006) goes on to state that there are many potential environmental influences that help to form an individual's personality. Child rearing practices are especially significant. In the dominant culture of North America, children are usually raised in ways that encourage them to become self-reliant and independent. Children are even allowed to act somewhat like equals to their parents. On the other hand, children in China are usually encouraged to think and act as a member of their family and to suppress their own wishes when they are in conflict with the needs of the family. Independence and self-reliance among children are viewed as an indication of family failure and are discouraged.

2.3.3 Unconscious mechanisms

Hall and Lindzey (1967) describe the mind as an iceberg in which the smallest part is above the surface and represents the region of consciousness. The larger section is below the water and represents the unconsciousness level. In this domain one finds human urges, passions, ideas and feelings. These unconscious processes operate out of awareness. These processes include socially forbidden desires, particular anger and sexual desire. These processes can also include emotionally painful memories of experiences such as abuse, abandonment or the seeing of violence (Edwards, 1998).

According to Freud, some parts of the personality are conscious and other parts are unconscious. The unconscious area is a deep, inaccessible section that contains various urges and drives. Between the conscious and unconscious levels, one will find the preconscious, which Freud saw as the

location of memories that can be brought into the conscious with effort. The drives and urges in the unconscious are active forces that seek expression and are major determinants of an individual's behaviour and personality (Bernstein & Nash, 2005).

2.3.4 Cognitive processes

Cognitive processes focus on the various aspects, including a person's expectation that follows their various behaviours, the goals the person holds or wishes to achieve, and the beliefs people have about the environment (Bernstein & Nash, 2005).

Alfred Adler is considered a psychodynamic theorist whose theories emphasised cognitive factors. Adler believed that a person's behaviour springs from their ideas (Edwards, 1998). Adler believed that as humans grow up, an 'apperceptive schema' is developed. According to Edwards (1998) a person who had negative emotional experiences as a child, might develop a defensive and unhealthy apperceptive schema, developing thoughts like 'I am a misfit', 'life is difficult'. They could also be emotionally cold and withdrawn. All of these thoughts influence individual's perception of the world, thereby influencing their personality.

Another important factor described by Edwards (1998) is Albert Bandura's concept of self-efficacy. Self-efficacy is the belief that individuals can cope with difficult situations; this in turn influences feelings and actions. If a person has high level of self-efficacy, they will be more positive and less prone to stress or anxiety.

2.4 Personality theories

Laher (2007) states that during the past century psychology has taken a more scientific exploration of personality and consequently, theories about personality abound. According to Maddi (1976) a personality theory should be a set of assumptions that is relevant to human behaviour together with the

necessary empirical definitions. It is also required that the theory be relatively comprehensive. An explanation of several personality theories will follow next.

2.4.1 Depth psychology approach

According to the New World Encyclopaedia (2008) depth psychology refers to any psychological approach examining the hidden or deeper parts of human experience. This approach is strongly influenced by the work of Pierre Janet and Carl Jung, with contributions by Sigmund Freud, Alfred Adler, Otto Rank, and various others (New World Encyclopaedia, 2008). Depth Psychology refers to psychoanalytic approaches to therapy and research that take the unconscious into account. Depth psychologists believe that a person's behaviour is influenced by factors that the person is usually not even aware of, as they occur within the person themselves. Depth theorists differ among themselves about the nature of the factors and to what degree people can control their conscious level. The early depth theorists believed in a biological nature of these unconscious factors, while the more modern theorists believe in a more social nature (Meyer, Moore & Viljoen, 1989). The word "depth" refers to what's below the surface of psychic materialization like behaviours, relationships, family dynamics, dreams, even social and political events and depth psychology even recognizes myth as a depository of recurrent situations.

2.4.2 Learning theory approach

In a different view, theorists have explained behaviour as a result of learning and environmental influences. Some theorists believe that people have certain biological drives which must be satisfied and when they are satisfied in a particular situation the individual learns to repeat the behaviour in similar situations (Meyer et al., 1989).

The social-learning approach views personality as a set of behaviours that individuals acquire through learning and then display this learned information in particular situations (Bernstein & Nash, 2005). Halonen and Santrock (1997) state that social learning theorists believe that humans are not mindless robots, rather, individuals think, imagine, reason, believe, value, and

compare. Hall and Lindzey (1967) describe the learning theory as the study of the circumstances under which a response and a cue stimulus form a relationship. After learning has taken place, the response and cue are bound together in such a way that the appearance of the cue evokes the response. The relationship between a cue and a response can be strengthened only under certain conditions, such as rewards or positive reinforcement. The relationship can also be terminated through conditions such as punishment or negative reinforcements. The learning theory has become a firmly knit body of principles that are useful in describing human behaviour, and therefore an individual's personality.

In the 1970's the social learning theory became more cognitive, due to the contributions of Walter Mischel and Albert Bandura (Halonen & Santrock, 1997). Bandura found the Behaviourism approach (that emphasis that ones environment causes ones behaviour), too simplistic, so he decided to add "learning" to the formula.

One of Bandura's studies that stand out from the others is the Bobo doll studies. Bandura made a film of one of his students beating up a bobo doll. Bandura showed this film to groups of kindergartners, and afterwards were let out to play. In the play room there were several observers, a brand new bobo doll, and a few little hammers. The observers recorded a lot of the children kicking and hitting the bobo doll. In other words, they imitated the student in the film. Bandura called this phenomenon observational learning or modelling, and this theory is usually called social learning theory (Boeree, 2007a).

Bandura continued with his study and went so far as to identify certain steps involved in the social learning theory approach. These include attention, as anything that distracts a persons attention is going to decrease learning, including observational learning. Retention s the second step, as individuals must be able to remember what they have paid attention to. The third step is Reproduction, which enables individuals to translate the images or descriptions into actual behaviour. Lastly, people have to be motivated to imitate something; they must have a reason for doing it (Boeree, 2007a).

The cognitive social learning theory emphasises the importance of cognition, behaviour, and the environment in determining personality (Halonen & Santrock, 1997).

2.4.3 Humanistic approach

Glassman (2000) states that the humanistic approach began as a response to concerns by therapists against the perceived limitations of Psychodynamic theories. Halonen and Santrock (1997) state that the humanist approach is the most widely adopted phenomenological approach to personality.

Morris and Maisto (2002) define humanistic personality theories as any personality theory that asserts the fundamental goodness of people and their striving towards higher levels of functioning. According to Glassman (2000) the humanistic approach places emphasis on subjective meaning, and shows concern for positive growth rather than pathology. Humanistic theorists highlight a person's capacity for personal growth, the freedom to choose one's own destiny, and that every person has the ability to cope with stress (Halonen & Santrock, 1997).

Two of the most prominent humanistic theorists are Carl Rogers and Abraham Maslow (Edwards, 1998; Halonen & Santrock, 1997). These theorists believe that healthy development will not take place in unfavourable conditions. Carl Roger's theory describes how healthy personality development depends on meaningful and healthy interpersonal relationships. For example when a mother needs her child with her all the time or wants to reflect her likes and dislikes on her child, the child will not develop a sense of independence (Edwards, 1998). Maslow was one of the most powerful influences in the humanistic movement in psychology. Maslow developed a hierarchy of needs, which was his idea of the main kinds of needs that every individual must satisfy. The hierarchy contains the following concepts in this sequence: physiological needs, safety needs, need for love and belonging, the need for esteem, and the need for self-actualization (Halonen & Santrock, 1997).

2.4.4 Psychodynamic theories

The psychodynamic approach is based on Sigmund Freud's method of psychoanalysis (Edwards, 1998), which was taken from the science of physics which stated that if two forces are in conflict, a third force is produced which acts in a different direction. The psychodynamic approach focuses on the developing and ever-changing inner world of the individual in which there are always conflicting feelings, motivations and ideas which the individual attempts in conscious and often unconscious ways to reconcile (Avis et al., 1999). According to McLeod (2007) the psychodynamic approach includes theories that see functioning based upon the interaction of drives and forces within the person, the unconscious parts of personality in particular. Even though Freud's psychoanalysis was the original psychodynamic approach, the approach as a whole includes theories based on Jung (1964), Adler (1927) and Erikson (1950) (McLeod, 2007).

The psychodynamic theory is broadly described as the encouragement of people to engage more closely with thoughts and feelings that may be hidden from the conscious mind (Hunt & West, 2006). Nicholas (2003) agrees with this, stating that this approach to personality assumes that personality, and the development of personality, are determined by intrapsychic developmental events and conflicts. Because of this, the psychodynamic theory is also often called the conflict approach. The psychodynamic approach assumes that personality is made up of three parts, the id, ego, and super ego (McLeod, 2007).

The id translates an individual's needs into motivational forces called instincts or drives. The id works in keeping with the pleasure principle, which has a demand to take care of needs immediately. During the first year of a child's life, some of the id becomes ego. The ego relates the individuals to reality by means of its consciousness, and it searches for objects to satisfy the wishes that the id creates to represent the child's needs. The ego represents reality and, to a certain extent, reason. However, as the ego struggles to keep the id happy, it comes across obstacles. The ego also occasionally comes across objects that actually assist it in attaining goals, and keeps a record of these obstacles and aides. In particular, it keeps track of the rewards and

punishments. This record of things to avoid and strategies to take becomes the superego (Boeree, 2007).

2.4.5 Trait and factor theories

According to Laher (2007) the trait theory of personality currently dominates the field of personality psychology. Darley, Glucksberg and Kinchla (1999) state that the earliest approaches to personality described human behaviour in terms of people's innate traits or dispositions. These theories described traits as stable, consistent and enduring. A trait theorist aims to find the simplest and most useful ways to classify people according to their personality qualities (Edwards, 1998). Trait psychologists also believe that individual differences in most characteristics are continuously distributed (Costa & Widiger, 1994). Since the 1930's certain psychologists have hoped to find a list of traits which would provide a complete description of individual differences. This was done using factor analysis after questioning a large sample about everyday thoughts, feelings, and behaviour. However, after more than 60 years of research, trait theorists do not agree about the number as well as the name of the personality traits that form the foundation of personality (Edwards, 1998).

Nicholas (2003) goes on to say that the task of a trait theorist is to identify all words that can be used as adjectives to describe personality. Gordon Allport's trait theory reveals that an inborn mechanism controls and influences personality, thought and behaviour. The trait theory is useful for the purpose of classifying, screening and personnel selection. According to Cattell (1946) traits can be seen as symptoms, or measurable attributes.

2.4.5.1 Allport's classification of traits

Gordon Allport based his concept of trait on the work of the type theorist William Stern. In 1937 Allport defined a trait as a "neural disposition of complex order, (which) may be expected to show motivational, inhibitory, and selective effects on specific course of conduct" (Cohler, 1993, p. 139). Allport's definition of trait changed only slightly over the years (Cohler, 1993).

Allport also recognised that some traits are more closely tied to one's self than others. Central traits are the building blocks of personality. When an individual is described, words that are likely to be used refer to these central traits, such as, smart, dumb, wild, shy, sneaky, dopey, and grumpy. There are also secondary traits, ones that aren't quite so obvious, or so general, or so consistent. Preferences, attitudes, situational traits are all secondary. For example, "he gets angry when you try to tickle him," and "she has some very unusual sexual preferences" (Boeree, 2007).

The essential ideas of factor analysis were introduced by Charles Spearman. Spearman suggested that if any two related tests of ability were examined, it may be expected to find two types of factors contributing to performance on these tests, namely a general factor (intelligence, verbal fluency) and a specific factor (visual memory, spatial perception). The method of factor analysis was developed to determine the existence of such general factors and to help identify them (Hall & Lindzey, 1967). One of the most important exponents of the factor-trait approach is Raymond Cattell.

2.4.5.2 Cattell's factor analysis model of personality

According to Hall and Lindzey (1967) Raymond Cattell's theory is one of the most comprehensive attempts made to bring together and organise the major findings of sophisticated factor analytical studies of personality. Cattell used the factor analysis model as a tool to enlighten a variety of problems that have been ordered within a systematic framework. The development of factor analysis is largely due to the work of Spearman, Burt, Thurstone, Holzinger and many others (Cattell, 1946). Cattell (1946) found that in any factor analysis only one of the possible alternative mathematical solutions will yield factors relating to the real source traits. Cattell (1952) states that factor analysis is a radical departure from the statistics associated with experimental tradition, as factor analysis does not accept arbitrary choices as to what are the important variables in any given field. Cooper and Makin (1984) define factor analysis more simply, as a complex mathematical technique used to determine which scores cluster together or which scores are unrelated to each other. Raymond Cattell introduced the use of multivariate analysis and

factor analysis, statistical measures that concurrently examine the relations among multiple variables and factors, to study personality. Through examining individual's life records objectively, using interviews and questionnaires, Cattell managed to describe a variety of traits that characterise the building blocks of personality (Sadock & Sadock, 2003). Neill (2007) goes on to state that Cattell viewed language as a useful source of information about personality. Cattell narrowed listings of more than 17,000 words down to 4,500 words and then narrowed these down further to 171 trait names. Cattell then collected self-ratings on these words and then conducted factor analysis. Cattell used both observer and behavioural data. The result was the sixteen personality factor questionnaire (Neill, 2007).

2.4.5.2.1 Cattell's definition of personality

Cattell purposely stated a broad definition of personality because he considered that the task of defining a personality rested on the shoulders of theorists themselves (Hall & Lindzey, 1967). Cattell defined personality as "that which predicts behaviour, given the situation" (Cattell, 1946, p. 566). Cattell further stated that personality is concerned with all the behaviour relations between the individual and the environment (Cattell, 1946).

In developing the 16 Personality Factor model, Cattell relied heavily on the previous work of scientists in the field. This includes the work of Allport and Odbert in 1936, and Baumgarten's similar work in German in 1933, which focused on a lexical approach to the dimensions of personality. Cattell focused on the understanding of personality as it pertains to psychology, and set out to narrow the work already completed by his predecessors. The goal of Cattell's research was to identify the personality relevant adjectives in the language relating to specific traits (Fehriinger, 2004). According to John and Srivastava (1999) and John (1990) in 1946 Raymond Cattell used the emerging technology of computers to analyse the Allport-Odbert list. Cattell first reduced the 4,500 trait terms to a mere 35 variables. That is, Cattell eliminated more than 99 percent of the terms. Using factor analysis Cattell generated twelve factors, and then included four factors which he thought should be included. Cattell then went on to construct the 16PF Personality

Questionnaire. The 16 primary factors included in the 16PF Personality Questionnaire are tabulated and defined in table 2.1.

Table 2.1 Primary factors and descriptors in Cattell's 16 Personality Factor Model*.

Descriptors of Low Range	Primary Factor	Descriptors of High Range
Reserve, impersonal, distant, cool, reserved, impersonal, detached, formal, aloof (Sizothymia)	Warmth	Warm, outgoing, attentive to others, kindly, easy going, participating, likes people (Affectothymia)
Concrete thinking, lower general mental capacity, less intelligent, unable to handle abstract problems (Lower Scholastic Mental Capacity)	Reasoning	Abstract-thinking, more intelligent, bright, higher general mental capacity, fast learner (Higher Scholastic Mental Capacity)
Reactive emotionally, changeable, affected by feelings, emotionally less stable, easily upset (Lower Ego Strength)	Emotional Stability	Emotionally stable, adaptive, mature, faces reality calm (Higher Ego Strength)
Deferential, cooperative, avoids conflict, submissive, humble, obedient, easily led, docile, accommodating (Submissiveness)	Dominance	Dominant, forceful, assertive, aggressive, competitive, stubborn, bossy (Dominance)
Serious, restrained, prudent, taciturn, introspective, silent (Desurgency)	Liveliness	Lively, animated, spontaneous, enthusiastic, happy go lucky, cheerful, expressive, impulsive (Surgency)
Expedient, nonconforming, disregards rules, self indulgent (Low Super Ego Strength)	Rule-Consciousness	Rule-conscious, dutiful, conscientious, conforming, moralistic, staid, rule bound (High Super Ego Strength)
Shy, threat-sensitive, timid, hesitant, intimidated (Threctia)	Social Boldness	Socially bold, venturesome, thick skinned, uninhibited (Parmia)
Utilitarian, objective, unsentimental, tough minded, self-reliant, no-nonsense, rough (Harria)	Sensitivity	Sensitive, aesthetic, sentimental, tender minded, intuitive, refined (Premsia)
Trusting, unsuspecting, accepting, unconditional, easy (Alaxia)	Vigilance	Vigilant, suspicious, skeptical, distrustful, oppositional (Protension)
Grounded, practical, prosaic, solution orientated, steady, conventional (Praxernia)	Abstractedness	Abstract, imaginative, absent minded, impractical, absorbed in ideas (Autia)
Forthright, genuine, artless, open, guileless, naive, unpretentious, involved (Artlessness)	Privateness	Private, discreet, nondisclosing, shrewd, polished, worldly, astute, diplomatic (Shrewdness)
Self-Assured, unworried, complacent, secure, free of guilt, confident, self satisfied (Untroubled)	Apprehension	Apprehensive, self doubting, worried, guilt prone, insecure, worrying, self blaming (Guilt Proneness)
Traditional, attached to familiar, conservative, respecting traditional ideas (Conservatism)	Openness to Change	Open to change, experimental, liberal, analytical, critical, free thinking, flexibility (Radicalism)
Group-oriented, affiliative, a joiner and follower dependent (Group Adherence)	Self-Reliance	Self-reliant, solitary, resourceful, individualistic, self sufficient (Self-Sufficiency)
Tolerated disorder, unexacting, flexible, undisciplined, lax, self-conflict, impulsive, careless of social rules, uncontrolled (Low Integration)	Perfectionism	Perfectionistic, organized, compulsive, self-disciplined, socially precise, exacting will power, control, self –sentimental (High Self-Concept Control)
Relaxed, placid, tranquil, torpid, patient, composed low drive (Low Ergic Tension)	Tension	Tense, high energy, impatient, driven, frustrated, over wrought, time driven. (High Ergic Tension)

*Source: Fehriinger (2004)

2.4.5.2.2 Classification of traits

Traits are both biologically based and environmentally learned. Biological traits include, among others, sex, aggression and parental protectiveness. Environmentally learned traits include cultural ideas, such as work, religion and identity (Sadock & Sadock, 2003). Traits reflect somewhat enduring dispositions and are distinguished from states or moods, which are more temporary (Costa & Widiger, 1994). Halonen and Santrock (1997) define a trait simply as a broad disposition that leads to characteristic responses. According to Cattell (1957) a trait is not defined by behaviour alone, as it also requires a statement of what aspect of the behaviour is to be counted in the process of it being measured. Many contemporary trait psychologists believe that there are five basic dimensions of personality (Halonen & Santrock, 1997).

Each factor in the sixteen first order factors can be considered to reflect a temperament. Examples of these include: dull vs. bright; low-ego strength vs. high-ego strength; submissiveness vs. dominance; confidence vs. timidity (Maddi, 1976). Table 2.1 clearly displays the 16 first order traits. As Cattell (1952) states the second order factors are less numerous than the first order factors. The second order factors might be considered to reflect the organization of concrete peripheral characteristics into types, and can be seen as factors among factors (Cattell, 1952; Maddi, 1976). Cattell labelled his two major second-order factors as introversion vs. extroversion and high anxiety vs. low anxiety (Maddi, 1976).

The Allport-Odbert lists of 4,500 trait terms were reduced to a mere 35 variables, and then using factor analysis, Cattell generated twelve factors. However, Cattell's variables were later analyzed by others, and only five factors proved to be replicable (Goldberg, 1995).

2.4.6 Big five model of personality

According to Foxcroft and Roodt (2005) many personality researchers have come to the conclusion that the sphere of personality traits may be accurately summarised in terms of five broad traits.

These traits have been labelled as extroversion, neuroticism, agreeableness, conscientiousness and openness to experience and are jointly referred to as Big Five model of personality (Foxcroft & Roodt, 2005). Costa and Widiger (1994) describe the Five Factor Model as a hierarchical form of the structure of personality traits. Goldberg (1995) states that these five traits seek to provide a scientifically persuasive framework in which to organise the vast individual differences that characterise humankind, as each broad domain incorporates hundreds of traits. The Big Five has its origins in analyses of trait-describing words in the natural language (Costa & Widiger, 1994). This process will now be discussed in more detail.

2.4.6.1 Development of the big five model of personality

According to John and Robins (1993) and John (1990) Allport and Odbert psycholexical study of English language personality descriptions laid the pragmatic and conceptual groundwork from which the Big Five eventually emerged. In 1936 Gordon Allport and H. S. Odbert worked through two of the most comprehensive dictionaries of the English language that were available at that time, and extracted 18,000 personality-describing words. From this colossal list they extracted 4500 personality-describing adjectives which they considered to describe observable and relatively permanent traits (John & Srivastava, 1999). John and Srivastava (1999) go on to state that Allport and Odbert were guided by the lexical approach, which hypothesis posits that most of the socially relevant and salient personality characteristics have become encoded in the natural language. Therefore, the personality vocabulary contained in the dictionaries of an innate language provides an extensive, yet limited, set of attributes that the people speaking that language have found important and useful in their every day interactions.

According to John and Srivastava (1999) and John (1990) in 1946 Raymond Cattell used the emerging technology of computers to analyse the Allport-Odbert list, and reduced the 4,500 trait terms to a mere 35 variables, then using factor analysis, Cattell generated twelve factors. However, Cattell's variables were later analyzed by others, and only five factors proved to be replicable (Goldberg, 1995). Fiske (1949) constructed much simplified descriptions from 22 of Cattell's variables; the factor structures derived from self-ratings, ratings by peers, and ratings by psychological staff members were highly similar and resembled what would be later known as the Big Five (John & Srivastava, 1999). Then in 1963, Walter Mischel Norman replicated Cattell's work and suggested that five factors would be sufficient.

In 1981 in a conference in Honolulu, four prominent researchers, namely Lewis Goldberg, Naomi Takamoto-Chock, Andrew Comrey, and John M. Digman, reviewed the available personality tests, and decided that most of the tests which held any promise seemed to measure a subset of five common factors, just as Norman had discovered in 1963. Originally, Norman (1963), labelled the factors (I) Extraversion or Surgency (talkative, assertive, energetic); (II) Agreeableness (good-natured, cooperative, trustful); (III) Conscientiousness (orderly, responsible, dependable); (IV) Emotional Stability versus Neuroticism (calm, not neurotic, not easily upset); and V) Culture (intellectual, polished, independent-minded) (John & Srivastava, 1999). It was then the work of Tupes and Christal (1961) and Goldberg (1981) who actively sought to confirm the existence of the five factors and later work by McCrae and Costa (1985, 1987) resulted in interpreting the Culture factor as "Openness to Experience" (Tyler, 2004).

These factors eventually became known as the "Big Five", which was chosen not to reflect their inherent greatness but to emphasise that each of these factors is extremely broad. Therefore, the Big Five structure does not imply that personality differences can be reduced to only five traits. But rather, these five dimensions represent personality at the broadest level of abstraction, and each dimension summarizes a large number of distinct, more specific personality characteristics (John & Srivastava, 1999; John & Robins, 1993).

2.4.6.2 The big five traits

The Big Five dimensions are defined by many specific traits (Costa and Widiger, 1994), and one specification can be seen in Table 2.2, which tabulates the facets of the Big Five traits of the Revised NEO personality Inventory. According to De Raad (2000) the Big Five Personality Model has gained considerable importance, the five traits associated with the Big Five, namely extroversion, neuroticism, agreeableness, conscientiousness and openness to experience, which are displayed in Table 2.2, will now be discussed in more detail.

Table 2.2 The Facets of the Big Five from the Revised NEO Personality Inventory*.

Big Five Dimensions	Facet (and correlated trait adjective)
Extraversion vs. introversion	Gregariousness (sociable)
	Assertiveness (forceful)
	Activity (energetic)
	Excitement-seeking (adventurous)
	Positive emotions (enthusiastic)
	Warmth (outgoing)
Agreeableness vs. antagonism	Trust (forgiving)
	Straightforwardness (not demanding)
	Altruism (warm)
	Compliance (not stubborn)
	Modesty (not show-off)
	Tender-mindedness (sympathetic)
Conscientiousness vs. lack of direction	Competence (efficient)
	Order (organized)
	Dutifulness (not careless)
	Achievement striving (thorough)
	Self-discipline (not lazy)
	Deliberation (not impulsive)
Neuroticism vs. emotional stability	Anxiety (tense)
	Angry hostility (irritable)
	Depression (not contented)
	Self-consciousness (shy)
	Impulsiveness (moody)
	Vulnerability (not self-confident)
Openness vs. closeness to experience	Ideas (curious)
	Fantasy (imaginative)
	Aesthetics (artistic)
	Actions (wide interests)
	Feelings (excitable)
	Values (unconventional)

* John & Srivastava, 1999, p.60

2.4.6.2.1 Extroversion

Extroversion includes the outward turning of psychic energy toward the external world (De Raad, 2000). Edwards (1998) states that an individual who score's high in extroversion is sociable, active, talkative, fun-loving, and optimistic. If an individual has a low score, they tend to be reserved and quiet, not necessarily unfriendly (Costa & Widiger, 1994; Edwards, 1998).

2.4.6.2.2 Agreeableness

Agreeableness is the trait that is most concerned with interpersonal relationships (De Raad, 2000) and refers to the kinds of interactions a person prefers (Costa & Widiger, 1994). Pawlik-Kienlen (2007) states that people who score high on agreeableness are pleasant and easy to be around as they tend to accommodate the wishes and needs of others, and have strong social relationships. On the other hand, an individual who scores low on agreeableness will be rude, irritable, uncooperative, suspicious, and tend to cater to his or her own needs (Edwards, 1998).

2.4.6.2.3 Conscientiousness

Conscientiousness represents the drive to accomplish something. Common features include high levels of thoughtfulness, good impulse control and goal-directed behaviour (De Raad, 2000). Pawlik-Kienlen (2007) states that conscientiousness individuals are organised, disciplined, dedicated and loyal, especially at work. Being aimless, negligent, careless and unreliable are characteristics of an individual who will have a lower score (Edwards, 1998).

2.4.6.2.4 Neuroticism

Neuroticism refers to the continual level of emotional adjustment and instability (Costa & Widiger, 1994). Neuroticism also includes unrealistic ideas and excessive cravings (Costa & Widiger, 1994). Individuals that score high with regard to the neuroticism trait tend to experience emotional instability, anxiety, moodiness, and irritability (Pawlik-Kienlen, 2007). Edwards (1998) go on to state that they tend to be worrying, insecure and nervous. A low scorer on neuroticism will indicate to an unemotional, relaxed, calm and secure individual.

2.4.6.2.5 Openness to experience

Openness to experience involves actively seeking and appreciation of experiences (Costa & Widiger, 1994). Openness to experience has also been referred to as Imagination, or intellect (Goldberg et al., 2006). An individual who scores high on openness to experience tends to be curious, seeks new

and unfamiliar experiences, has a broad range of interests and is easily bored (Edwards, 1998). Pawlik-Kienlen (2007) also found they love adventure and are insightful and imaginative and they are not afraid to take risks. An individual with a lower score may be narrow minded, conventional, unimaginative, and prefer familiar territory and tend to be more practical (Edwards, 1998).

According to Arehart-Treichel (2005) the essence of resilience is the ability to rebound from stress effectively and to attain good functioning despite difficulty. While some people are naturally resilient, others may have to work at it (Griffith, 2007).

Various research publications have shown that resilience is a valid predictor of the development of stress and burnout. A more detailed discussion on the concept resilience will follow next.

2.5 Resilience

In the 1970's many social researchers began focusing on why some people not only stay healthy, but also do well in the face of adversity and risk. This perception is called "resilience" (Patterson, 2002), and has become an important concept in research and mental health theory over the past decades (Walsh, 2003). While some people are naturally resilient, as their personality may contribute to the prediction of resilience, others may have to work at it (Griffith, 2007; Campbell-Sills et al., 2006), and is co-determined by environmental and personal characteristics (Lew, 2001). In this chapter the term "resilience" will be investigated, followed by a discussion about resilience in the work place.

According to Jackson, Firtko and Edenborough (2007) the development of resilience as a concept extends from the 1800s and continues to the present time. The essence of resilience is the ability to rebound from stress effectively and to attain good functioning despite difficulty (Arehart-Treichel, 2005). Kruger and Prinsloo (2008) state that resilience is a complex construct, that is often defined in different ways by researchers in terms of it being a dynamic developmental process, disposition or capacity and a sustained positive

outcome. Resilience helps individuals who are living in difficult conditions or who experience abuse, neglect, loss and other adversities, function with low levels of distress and high levels of confidence and hope, which is adequate for effective social and personal functioning (Grotberg, 2001). In the working environment, especially a call centre, employees tend to be more dependent on their own ability to manage the challenges they face, and less dependent on external support. Research conducted by Carvalho et al. (2006) showed that individuals with higher levels of resilience appear to be less emotionally exhausted than individuals with lower levels of resilience.

This chapter will focus on the nature and definition of resilience, as well as closely related terms. A number of various factors that contribute to the development of resilience, such as individual attributes, family support, and external support, are also highlighted, followed by a more context specific discussion on resilience in the workplace.

2.5.1 Nature and definitions of resilience

The origins of the concept of resilience originate from the early psychiatric literature that examined children who appeared to be invulnerable to unpleasant life situations. Over time, the term “invulnerable” was replaced by the term “resilience,” and a new area of theory and research was born (Earvolino-Ramirez, 2007). The word ‘resilience’ is derived from the verb ‘resile’, which means that when a object is stretched or bent, it tends to spring back, to recoil, and to resume its former shape and size. To be resilient includes constructive and growth-enhancing consequences of adversity or challenges (Strumpfer, 2003).

According to Theron (2004) resilience is a cryptic concept which can be defined as the ability to successfully negotiate life's adversities and continue along the path of self-actualisation. Recent research shows that people who are resilient do not reduce the existence of stress in their lives; instead, stressful conditions are seen as opportunities for growth and development as opposed to threats to well-being (O'Rourke, 2004). Griffith (2007) states that resilience is the ability to adapt to a traumatic experience, adversity and

stress, such as serious illness, the death of a loved one, a divorce or the loss of a job. If an individual has the ability to bounce back when life knocks them down, they are resilient. Wagnild and Young (1993) define resilience as a characteristic that moderates the negative effects of stress, and promotes adjustment to circumstances. Two dimensions of resilience, namely personal competence and acceptance of self and life were identified. Higher levels of Personal competence reflect characteristics such as self reliance, determination, resourcefulness and independence. While “acceptance of self and life” reflects a sense of peace despite adverse conditions, accompanied by adaptability and flexibility (Wagnild & Young, 1993).

Cleary and Malleret (2006) go on to describe resilience as the ability and capacity of individuals to withstand situational discontinuities and being able to adapt to new risk environments. The mainstream psychological view of resilience defines resilience in terms a person's capacity to avoid psychopathology despite difficult circumstances (Neill, 2006). A practical definition for resilience was found in Lloyd (1995) who stated if resilience could be touched, it would be made from a bendable and stretchable material that would be tough enough to withstand the heat and turbulence brought on by changes. Grotberg (2003, p.1) defines resilience as “the human capacity to deal with, overcome, learn from, or even be transformed by the inevitable adversities of life”. A consistent theme among the definitions of resilience is a sense of recovery and rebounding despite adversity or change (Earvolino-Ramirez, 2007).

From the above definitions of resilience, one can assume that resilience is the ability to not only cope with a stressful or challenging situation, but to emerge from the situation victoriously and better equipped for future challenges.

2.5.2 Approaches to resilience

According to Macdonald (2007) there is no single resilience approach but rather a family of approaches, which overlap considerably.

2.5.2.1 Salutogenic perspective on resilience

According to Lindström and Eriksson (2009) Aaron Antonovsky developed the salutogenic theory twenty years ago, with a focus on the importance of developing the determinants of health, emphasizing on how health is created instead of disease. A salutogenic model ignores the whole notion of risk exposure as a prerequisite for being labelled “resilient” and rather places the emphasis on factors that contribute to health and wellbeing. The salutogenic model focuses on factors that help identify coping resources which may contribute to resilience and effective adjustment, notwithstanding adversity and risk (Sun & Stewart, 2007). The salutogenic approach is strongly linked to a positive health outcome for the individual and the organization. The concepts implicit in the salutogenic model have relevance in health promotion and practice. Salutogenesis is often seen as the process of enabling individuals, groups, and organizations to emphasize on abilities, resources, capacities, competences, and strengths in order to create a sense of coherence and thus perceive life as comprehensible, manageable and meaningful (Lindström & Eriksson, 2009).

The concept of sense of coherence was proposed by Antonovsky in 1979 to explain why some people become ill under stress and others stay healthy. The term ‘sense of coherence’ arose from the salutogenic approach, which highlights the search for the origins of health rather than the causes of disease. Sense of coherence can be defined as the extent to which a person has a pervasive, enduring, feeling of confidence that one’s environment is predictable and that things will work out as well as can rationally be expected (Collingwood, 2006).

According to Macdonald (2007) resilience may be seen in individuals or in the group environment. According to Hall, Zautra, Aiken, Castro, Davis, Lemery, Leuken, Reich, and Puybroeck (2003) there is growing literature on the characteristics of resilience in individual. Resilient individuals are able to regain balance and keep going despite adversity and misfortune and find meaning amidst confusion and turmoil. Resilient persons are self-confident and understand their own strengths and abilities. They do not feel a pressure to

conform but take pleasure in being unique. Resilient individuals have confidence in their ability to persevere because they have done so before and foresee rather than fear change and challenges. Resilient individuals experience the same difficulties and stressors as everyone else; so they are not immune or hardened to stress, but they have learned how to deal with life's inevitable difficulties and this ability sets them apart (Wagnild & Young, 1993).

2.5.2.2 Ecological perspective on resilience

The Resiliency Resource Centre (2007) states that there is a widespread human tendency to over-estimate the importance of internal, personality traits and under-estimate the impact of the environment in explaining individual's behaviour. Resiliency research has increasingly embraced an ecological model, in which an individual's functioning and behaviour is viewed within the context of a web of bi-directional relationships, including family, school, peers, the community and the wider society.

While genetic factors may play a role in resiliency, the ecological approach highlights the quality of inter-personal relationships and the availability of networks of support. The ecological perspective also assumes that treating children as isolated units of cognitive functioning is a limited approach, and that ultimately resiliency is not an attribute of any single individual; it is an attribute of communities, schools and families (Resiliency Resource Centre, 2007).

The ecological perspective specifies that wellbeing is affected substantially by the social contexts in which individuals are embedded and is a function of the quality of relationships among individual, family and institutional systems. Also to be considered are positive factors external to the individual. External protective factors include parental support, adult mentoring, or organizations that promote positive youth development. The term external emphasizes the social environmental influences on child health and development, helps place resilience in a more ecological context, and moves away from conceptualization of resilience as a static, individual trait (Sun & Stewart, 2007).

Resilient communities have committed leaders within the community, a high degree of civic engagement and associational life, access to skills and knowledge, and a culture of active learning (Hall et al., 2003). There is growing evidence to suggest that Latino youth who are strongly attached to their native culture are more resilient to the stressors in American culture than those Latinos who have been in the American culture longer and have weaker ties to their native culture (Hall, Zautra, Aiken, Castro, Davis, Lemery, Leuken, Reich & Van Puymbroeck, 2003).

2.5.2.3 Kumpfer's approach to resilience

Kumpfer's model of resilience has six main components; four of these components are domains of influence, while two are transactional points between two components. The four domains of influence are stressors or challenges, the environmental context, individual characteristics, and the outcome. The domains of transaction are the confluence between the environment and the individual and the individual and choice of outcome (Kumpfer, 1999). These six components, illustrated in figure 2.1, are briefly discussed below.

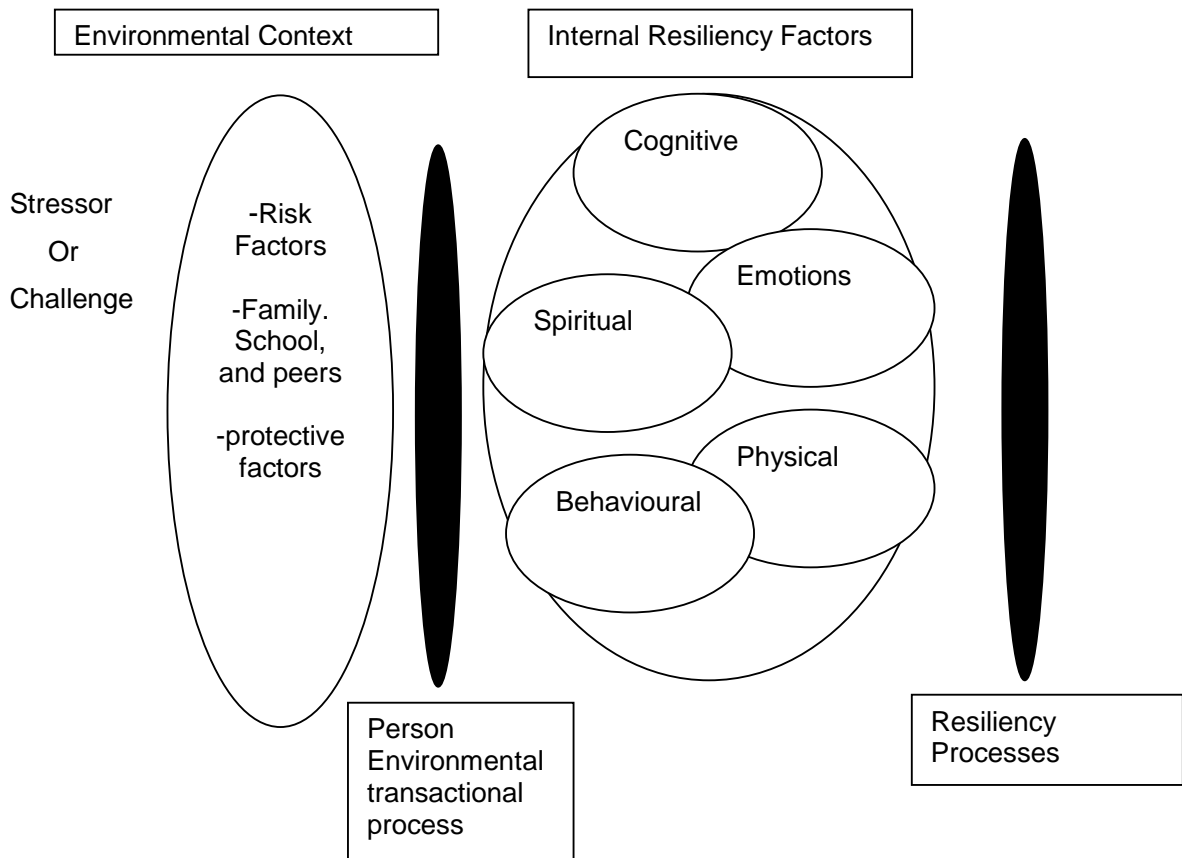


Figure 2.1 Kumpfer's model of resilience (Adapted from Kumpfer, 1999, p. 185).

Stressors or challenges are incoming stimuli, which activate the resilience process and may create a disruption in the homeostasis in the individual, organisation, or community. The environmental context involves the interaction of risk and protective factors and processes in an individual's domain of influence, such as the family, culture, and peers. The environment and the individual interactional processes include the interaction between an individual and his or her external environment. Individual characteristics include all internal cognitive, behavioural, and affective individual competencies, which are needed in order to be successful in life. Lastly the positive outcome, or successful adaptation, in specific developmental tasks is supportive of later adaption to challenging tasks (Kumpfer, 1999).

2.5.3 Contributing factors to the development of resilience

As Mandleco and Peery (2000) state, a central concern regarding resilience isn't whether or not it exists, but rather identifying factors that contribute to resilience.

According to Fergus and Zimmerman (2005) a key requirement of resilience is the presence of both risk factors and promotive factors that help bring about a positive outcome or reduce, or even avoid, a negative outcome. Promotive factors include assets, which are the positive factors that exist within the individual, such as competence and self-efficacy. Resources external to the individual can also help individual's overcome risk. Resources can be defined as external protective factors which are found in the individuals social or external environment and include, among others, parental support and adult mentoring, or community organisations that promote positive youth development (Fergus & Zimmerman, 2005; Visser, 2007). Both internal and external factors, to varying degrees, are necessary for resilience to occur (Lawford & Eiser, 2001; Mandleco & Peery, 2000).

Most of the early research on resilience has focused on children who are seen to be "at risk" for later difficulties in life because of adverse life circumstances such as poverty (Hoge et al., 2007). Children may be more or less resilient at different points in their lives depending on the contact with, and accumulation of, individual and environmental factors (Howard, Dryden & Johnson, 1999). A study conducted by der Kinderen and Greeff (2003) proposes that the two most important resilience factors include family schemas and social support.

The International Resilience Research Project was conducted in 22 countries and had a total of 3398 respondents (adults and children). The results showed that no matter what country people live in, no matter what conditions surround them; only about one-third of the respondents had developed resilience (Grotberg, 2001). Hjemdal, Friborg, Stiles, Martinussen, and Rosenvinge (2006); Richardson (2002) and various other researchers have proposed three categories that promote resilience, namely individual dispositional

attributes, family support and cohesion, and external support systems. Figure 2.2 illustrates the three categories, which will now be discussed in more detail.

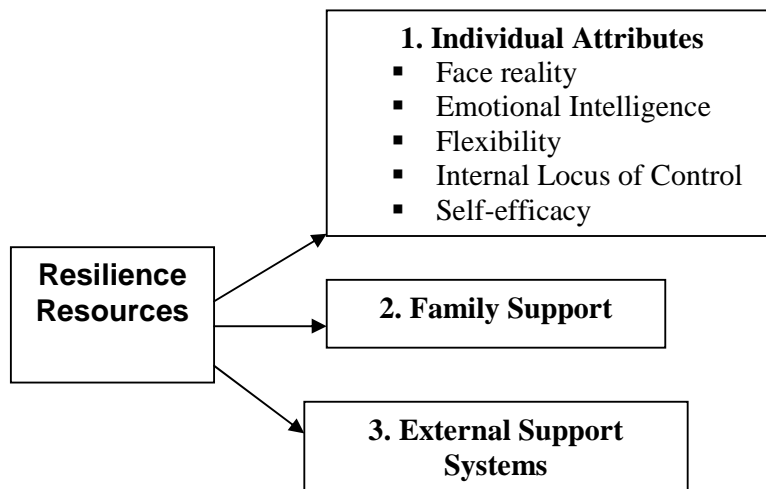


Figure 2.2 Resilience resources

2.5.3.1 Individual dispositional attributes

Some people possess certain characteristic strengths or assets that help them survive adversity (Richardson, 2002). According to Scott (2007) there are certain characteristics that resilient people tend to share. Research conducted by Campbell-Sills et al. (2006) also found that certain personality attributes contributes to the prediction of resilience. Resilience requires positive regard, and a will for continuous learning (Brown, 1996). Coutu (2003) states that resilient people have the ability to improvise by solving problems without the usual tools. Resilient individuals also have high levels of self-confidence, a willingness to take risks, and a commitment to personal excellence (Brown, 1996). Other common characteristics of resilience include task commitment, academic achievement, verbal ability, intelligence, ability to dream, desire to learn, maturity, risk-taking, and self-understanding (Bland et al., 1994). According to Neill (2006) resilient individuals are not only able to cope well with unusual strains and stressors but tend to experience such challenges as learning and development opportunities.

2.5.3.1.1 Face reality

Individuals who are resilient can face reality head-on, labelling their obstacles, losses and disappointments for what they are and without delusions. Coutu (2003) states that a characteristic of a resilient person is the ability not only to face reality, but also to accept reality. By looking hard at reality, a person is able to prepare themselves to act in ways that will allow them to endure and survive hardships (Coutu, 2003).

2.5.3.1.2 Emotional intelligence

Emotional intelligence was initially proposed in 1990 by Salovey and Mayer (1990) and over the past years employees and psychologists have realised that moods, feelings and emotions play a significant role in the workplace. Emotional intelligence refers to the degree of psychological skilfulness with which people deal with events (Edwards, 1998a). Emotional intelligence includes the ability to be aware of ones own emotions as well as other peoples emotions (empathy), being able to manage your emotions and to have a good understanding of the complex relationships that may develop between emotions (Singh, 2006).

The ability to handle your feelings and impulses is a reflection of a high emotional intelligence (Griffith, 2003). The American Psychological Association goes on to state that resilient individuals have the capacity to manage strong feeling and impulses. The management of emotions is more than likely to result in employees increasing their affective commitment to their organisation by developing enthusiasm for their work (Singh, 2006). Scott (2007) states that resilient individual's understand what they are feeling and why.

2.5.3.1.3 Flexibility

Borgen, Amundson, and Reuter (2004) state that previous literature has identified flexibility as a factor associated with resilience. Brown (1996) goes on to state that resilient individuals have a positive attitude that is equally focused and flexible. The term "rebounding" is also found consistently in all aspects of resilience literature and it implies a positive direction or response.

The ability to bounce back and move on in life after adversity is present in resilience (Earvolino-Ramirez, 2007).

2.5.3.1.4 Internal locus of control

An individual's locus of control explains one's own success, failures or other experiences when environmental conditions do not provide any obvious explanation (Singh, 2006). The concept locus of control can be divided into two domains, namely internal locus of control and external locus of control. Internal locus of control is when people expect that the way they respond to everyday situations will make a difference to what happens and the consequences of their actions. While others (external locus of control) believe that what happens to them is more a matter of chance or luck (Edwards, 1998). According to O'Rourke (2004) resilience involves the perceived ability to be able to exercise control over ones circumstances. Therefore, strong relations may be expected between internal locus of control and resilience as a number of characteristics related to internal locus of control are also related to resilience. Individuals with an internal locus of control have better ego functions, they actively seek information relevant to their plans, are co-operative with others, have good coping skills and resist social pressure. As discussed earlier, these characteristics are also found in individuals who have a high level of resilience (Edwards, 1998). Bland et al. (1994), Brown (1996), and Scott (2007) also state that a characteristic of resilience is an internal locus of control.

2.5.3.1.5 Self-efficacy

Halonen and Santrock (1997) states that fairly recently Albert Bandura (1991, 1994) has addressed the importance of self-efficacy in personal adjustment, and views self-efficacy as vital to improving a individuals coping skills. The literature on the concept of self-efficacy in relation to resilience is vast, and self-efficacy is attributed with many stages, forms, and levels of resilience (Earvolino-Ramirez, 2007).

According to Edwards (1998) self-efficacy is the belief that a person can cope with a difficult situation. Not only does a high level of self-efficacy reduce

anxiety, but it equips a person to cope with challenging situations. Schultz and Schultz (1994) go on to describe self-efficacy as the belief in one's capacity to perform a task that includes adequacy, efficiency and competence in coping with life's demands and challenges. In a person's career, high levels of self-efficacy enable employees to overcome challenges and therefore can increase resilience. Along with personality traits, researchers have also found a number of family factors that act as a buffering effect (Rak & Patterson, 1996).

2.5.3.2 Family support

A good support system is vital in order for individuals to be resilient. Griffith (2007) concurs with this by stating that people who are most resilient have a network of loving and supportive friends and family members. Howard et al. (1999) boldly states that few people would argue the factor of family support and care as a strong predictor of resilience.

Mandleco and Peery (2000) state that the nature as well as the quality of relationships within the family is important in developing resilience. It is important to note that the development of resilience is influenced by early life experiences, as well as during childhood and adolescents, and circumstances in adult life (Al-Naser & Sandman, 2000). Positive communication within the household contributes to constructive relationships and caring adults who are involved in the lives of children and youth across various settings help to foster positive development (Leffert, Benson, Scales, Sharma, Drake & Blyth, 1998; Rose, 2006). Research conducted by Schoon and Bynner (2003) was aimed at identifying the protective factors that can help to strengthen resilience. Results showed that factors associated with positive adjustment included a stable and supportive family environment, where parents showed interest in their child's education. A supportive family environment where parents read to their child, visit the child's school and spoke to the teacher, and who took the children out for joint activities can also help strengthen resilience (Schoon & Bynner, 2003).

Werner and Smith (1988) (cited in Howard et al., 1999) also identified a range of important protective factors within family. These factors include a family size of four or fewer children spaced more than two years apart (Howard et al., 1999; Rak & Patterson, 1996). The availability within the household of care-givers who step in when the mother (or parents) are not consistently present, all of whom are prepared to provide a considerable amount of attention to the child in infancy (Howard et al., 1999; Rak & Patterson, 1996). Structure and rules during a child's adolescence, despite poverty and stress in the household (Howard et al., 1999; Rak & Patterson, 1996). A multigenerational and informal network of kin and friends during adolescence and few stressful experiences during childhood and adolescence also act as protective factors (Howard et al., 1999).

The Search Institute states that high levels of love and support from within the family contribute greatly to the development of resilience (Leffert et al., 1998). Walsh (2003) goes on to state that family cohesion is also essential, as resilience is strengthened by mutual support, commitment, and collaboration to face troubled times together. These relationships within the family may encourage relationships outside of the family (Mandleco & Peery, 2000).

2.5.3.3 External support systems

Children who live in disadvantaged areas are generally considered to be more at risk than those in more affluent areas. However, certain community characteristics seem to operate as protective factors (Howard et al., 1999). According to the Search Institute these characteristics may include a caring neighbourhood, support from three or more none-parent adults, a community that values youth, and safety in the school and the neighbourhood (Leffert et al., 1998).

According to Mandleco and Peery (2000) there are two main factors outside of the family that have an impact on the development on resilience, namely resources available in the community itself and the nature and quality of relationships with certain individuals, as resilient children often have a number of mentors outside the family (Rak & Patterson, 1996). Ong and Bergeman

(2004) define social support as the provision and receipt of instrumental (e.g., help when ill) and emotional (e.g., advice) support and assistance from others.

2.5.3.3.1 Relationships outside of the family

Werner and Smith (1988, 1990) studied children who were classified as being at risk because of their individual, family or environmental factors that could lead to negative life outcomes (Howard et al., 1999). The longitudinal study was carried out in Kauai, Hawaii in 1955. More than 200 of the sample of 660 children were identified as being at risk, and the participants were followed from birth till 32 years of age (Rak & Patterson, 1996). The results showed that positive relationships, rather than specific risk factors, seemed to have a greater impact on the direction that the individual's lives take (Howard et al., 1999). According to Walsh (2003) Werner and Smiths (1988, 1990) research of resilience highlighted the vital role of significant relationships with kin, and intimate partners such as teachers or mentors who supported and encouraged individuals. The ability to be resilient in spite of career obstacles also requires social support (Lew, 2001).

2.5.4 The nature and importance of resilience in the work place

In this highly interconnected and volatile world, relatively small disturbances can combine to result in severe disturbances in businesses; therefore it is vital that organisations are equipped for change (Cleary & Malleret, 2006). A brief discussion on resilience in the work place will follow.

In the workplace, change is continuously taking place at a rapid pace, affecting not only career paths but career development as well. Mergers, acquisitions, affirmative action and downsizing are influencing employment patterns and altering the career directions of many individuals. No longer are individuals advised to think in terms of spending their entire careers in one organization. But rather, they are encouraged to recognize the temporary nature of all jobs and the necessity to prepare themselves for redefined career paths that require resilience (Brown, 1996). As Vickers and Parris (2007)

state, workers are expected to be tractable and so as not to be made redundant modern workers are also expected to be flexible and resilient.

The South African career context can be seen as a “less than optimal” working environment due to factors such as the high unemployment rate, employment equity targets, large scale retrenchments, education and skill shortages and emotional and financial stressors. Therefore the concept of resilience appears to be very relevant for individuals pursuing careers in South Africa (Van Vuuren & Fourie, 2000).

Many individuals have shown resilience in their lives, such as recovering from the death of a loved one, moving on after a break-up with a significant other, or perhaps overcoming a serious medical illness or injury. It is certain that every adult worker in the modern world of work will face many obstacles or barriers and resilience enables an employee to overcome career obstacles, and sets the stage for future career successes (Schultz & Schultz, 1994). Organisations today operate in such a unstable environment, that no contract will benefit them for very long, therefore employees will need the ability to bend and not break, the ability to learn the new, to live with high amounts of uncertainty, and to be able to bounce back from disappointments (Bridges, 1994).

Resilience in the work place is a relatively new term that has surfaced due to the growing interest in employee’s welfare and the dramatic changes in career requirements (Grotberg, 2003). Brown (1996) states that resilience in the work environment refers to individual career development through developing the knowledge and skills required to make a visible and personally motivated contribution to the organization and its customers. A resilient individual will be able to find personal meaning in every obstacle he or she experiences in their career, and will be able to deal with any accompanying emotion (Lew, 2001). London (1993) states that resilience applied in the work place can be seen as the ability to adapt to changing situations, and encompasses accepting organisational changes, looking forward to, and being comfortable with new and different people, being willing to take risks and displaying self-confidence. The simplest definition of was found in Lew (2001), who defined work

orientated resilience as the ability to recuperate and grow as a result of environmental pressures and barriers in the domain of work.

Wilson and Ferch (2005) propose that resilience in the workplace can be enhanced through the practice of caring relationships, and Kerfoot (2005) states that organizations that have an infrastructure of confidence are able to demonstrate resilience in the face of many adversities. Resilience can also be increased when good work is reinforced, opportunities for achievement present themselves and the working environment encourages risk taking (London, 1993).

2.5.5 Benefits of resilience in the work place

According to Brown (1996) the company that embraces resilience will have a huge advantage, through encouraging employees to grow, change and to learn, the company will do these things better itself. Resilient individuals are also better able to deal with adversities, and are often part of the solution and not the problem (Grotberg, 2003).

2.5.5.1 Organisational benefits

Employees and employers stand to benefit significantly from initiatives aimed at equipping individuals to the changing work and career paradigm, and a competency such as resilience can create a competitive advantage to both employees and employers alike (Van Vuuren & Fourie, 2000). Despite concern that organizations that enable their employees to better their skills and employability will lose them to their competition, employers who value highly skilled and motivated employees are more likely to retain them. Resilient organizations train employees in multiple skills and functions, and when employees are happy with their organization, they do not leave (Brown, 1996; Johnson-Lenz, 2009). Resilient organizations seek out potentially disturbing information and test it against current assumptions and mental models. Therefore they are able to detect the unexpected so they can respond quickly enough to exploit opportunity or prevent irreversible harm. Social networks among employees at resilient organizations are rich, varied,

and visible. People who have trustworthy relationships and personal support systems at work and with friends and family are much more able to cope with stress and the organisation is much more likely to hold up in a crisis (Johnson-Lenz, 2009).

According to Lee (2008) a resilient workforce is a healthy, energetic, durable, enthusiastic, and most importantly, a productive workforce. A resilient workforce is also more able to handle heavy workloads, pressures, and major change without becoming stressed out.

2.5.5.2 Individual benefits

Work place resilience enables employees to overcome career obstacles, and may set the stage for upcoming career success (Lew, 2001).

2.5.5.2.1 Job security

Goldenkoff (1996) states that the term job security has been replaced by the concept of career resilience, where organisations provide employees with resources and opportunities to assess and improve their interests, capabilities and job skills. In exchange for enhanced employability, employees are expected to be more productive and more committed to the organization. Brown (1996) goes on to say that the contract between employer and employee is a partnership. Today the emphasis in this contract is on worker employability rather than job security. In this contract, employers are supposed to provide the opportunities, tools, and support to help employees develop their skills and maintain their employability. While the employees have the responsibility of managing their careers, taking advantage of the opportunities they are given and adapting to changes in the workplace (Brown, 1996). Thus, the employees must have the ability to be resilient in the work place.

2.5.5.2.2 An improved career path

By benchmarking their skills and knowledge against the best practices in their field, individuals are better able to assess their employability and predict the effect that business and industry trends might have on them (Brown, 1996). In

the modern work world of today, that is characterized by change, where the skills of identity development and heightened adaptability to change are in demand, resilience is the path to job security and career health (Brown, 1996). According to Goldenkoff (1996) among stable or growing organizations, resilience programs can refresh employees and help them move on to other jobs or career paths. Acquiring new skills and increasing abilities is one of the most important factors in creating self-esteem in staff members (Reza, 2003).

2.5.5.2.3 Improved self-esteem

According to Brooks (2001) resilient individuals maintain a high level of self-esteem, a realistic sense of personal control, and a feeling of hope. Brown (1996) states that through continuous learning and development, individuals can gain a new sense of control and gain confidence in their newly acquired knowledge and skills. Self-esteem and job satisfaction have important roles in improving the organizational climate, and the self-esteem of the employees can increase their job satisfaction. Reza (2003) states that a high self esteem is to consider oneself as a valuable person, while individuals with low self-esteem show symptoms such as depression, anxiety, job dissatisfaction and decrease in performance. Resilient individuals continuously have positive thoughts and improved confidence in themselves (Visser, 2007).

2.5.5 Measuring resilience

According to Hjemdal et al. (2006) there are a number of scales that measure resilience. The Brief Resilient Coping Scale (BRCS) is a 4-item measure designed to capture tendencies to cope with stress in a highly adaptive manner. Convergent validity of the scale is demonstrated by predictable correlations with measures of personal coping resources such as optimism, helplessness, and self-efficacy, pain coping behaviours, and psychological well-being. Resilient coping, as assessed by the BRCS, also buffers the effects of high levels of stressors on depressive symptoms. The BCRS is useful for identifying individuals in need of interventions designed to enhance resilient coping skills (Sinclair & Wallston, 2004).

The Resilience Scale for Adults (RSA) can be used as a predictor for developing psychiatric symptoms when exposed to stressful life events. The RSA measures important protective factors that buffer the development of psychiatric symptoms when individuals encounter stressful life events. Findings from Hjemdal, Friborg, Stiles, Rosenvinge, and Martinussen (2006a) research suggests that the RSA is a significant predictor of mental health and a useful tool for further research examining individual differences in stress tolerance (Hjemdal, 2006a). The RSA consists of 33 items phrased in positive and negative sense relating to the various domains of resilience including personal strength, social competence, family cohesion, and social resources (Narayanan, 2007).

According to Wagnild and Young (1993) the Resilience Scale (RS) is a very popular instrument designed to measure psychological resilience, which has received strong reliability and validity support over the past 15 years. Unlike other instruments that rely on theoretical definitions, the Resilience Scale is derived from interviews with resilient individuals, and therefore is considered by many to be the most accurate instrument to measure resilience currently available.

The Adult Resilience Indicator is a resilience scale that is used as an indicator of the presence or lack of resilience promoting and vulnerability factors. The scale consists of 82 items and measures eight factors, namely confidence and optimism, positive reinterpretation, facing adversity, social support, determination, negative rumination, religion, and helplessness (Visser, 2007).

2.5.6 Summary

Resilient individuals are able to bounce back after difficult or challenging experiences, and often come out of turbulent times better than when they went in to them. The development of resilience is influenced by a number of internal and external factors, and requires an individual to face reality, to have high levels of emotional intelligence and self-efficacy, to be flexible, and to have an internal locus of control, as well as family and external support systems.

Factors such as changing organisations, family commitments, and alternate job paths are only a few of the obstacles most employees will face during their career paths (Schultz & Schultz, 1994). To be resilient in the work place is a major characteristic that influences whether or not an individual is able to bounce back after facing a difficult situation (Griffith, 2007). It is certain that every adult worker in the modern world of work will face many obstacles or barriers and resilience enables an employee to overcome career obstacles, and sets the stage for future career successes (Schultz & Schultz, 1994). It is important to remember that resilience learnt in the work place can also be used in a number of other circumstances out of the working environment (Brown, 2003).

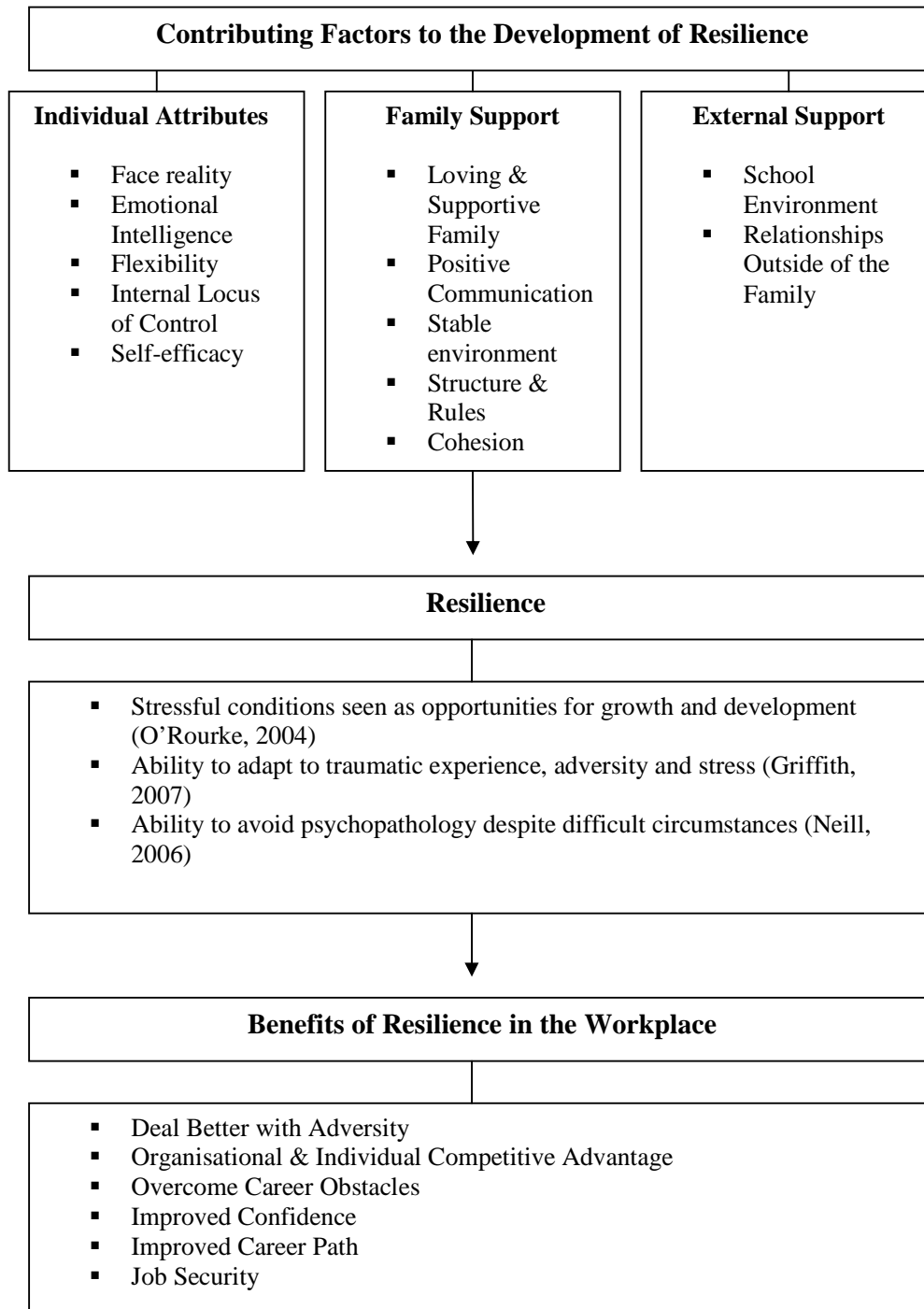


Figure 2.2 Contributing factors to the development of resilience

Figure 2.2 clearly displays the contributing factors to resilience and the benefits of being resilient in the work place. However, individuals with lower levels of resilience are more likely to suffer from stress, which consequently may lead to burnout. Job stress and burnout will be discussed in more depth in the subsequent chapter.

CHAPTER 3

JOB STRESS AND BURNOUT

3.1 Introduction

Stress has become a common denominator in today's fast-paced, complex society. Work stress, financial stress, family stress, and chronic stress are no longer isolated experiences but common problems shared by people from various backgrounds and in differing social circumstances (Matthieu & Ivanoff, 2006). Halonen and Santrock (1997) state that the world is full of stressful circumstances and two-thirds of all visits to family doctors in America are for stress related symptoms.

According to Reichel and Neumann (1993) during the past two decades, stress and burnout in organizations have become the focus of an overabundance of studies. According to Mazibuko (1996) the term "burnout" has become a common expression in discussions of stress-related problems. Burnout has become so common that since 2001 the American Joint Commission on Accreditation of Healthcare Organizations has required that all hospitals have a process in place for addressing physician well-being (Couper, 2005). According to van Dyk (2007) burnout is a factor to be concerned about in South Africa. Burnout is a particular, yet multidimensional, chronic stress reaction that goes beyond the experience of sheer exhaustion, and is often seen as the final stage in a string of unsuccessful attempts to cope with a variety of negative stress conditions (Rothmann et al., 2003).

Since job stress is prevalent in call centres, the aim of this chapter is to explore the concepts of job stress and burnout in order to have a concrete understanding of these terms. This will include a discussion on the theories, the nature and meaning, development, causes, and symptoms of job stress and burnout.

3.2 The nature and meaning of job stress

Halonen and Santrock (1997) state that stress is a term that can not be easily defined, and there is no consistent definition from experts in the field (Gold & Roth, 1993). However, there are two general perspectives. The first perspective sees external factors as the cause of stress, while the second perspective sees stress as internal, how an individual reacts to what is going on around them (Gold & Roth, 1993). Papworth (2003) defines stress simply as a physical and mental reaction to a perceived challenge.

According to Paine (1982) in many job situations, particularly in human services, job stress is a largely unavoidable component of the work. Public and private sector organisations are acknowledging the unacceptable costs of stress and are therefore providing stress management programmes for employees in an attempt to combat the problem of stress (Sutherland & Cooper, 1996). An individual is likely to experience job stress when the demands of the workplace surpass his or her adaptive responses (Rothmann, Jackson & Kruger, 2003). Job stress is a result of employees regularly having to face stressful situations at work in which they have to do demanding tasks or adjust to new situations; (Louw & Edwards, 1998). Job stress may result when employees work too much or under bad circumstances (Kuhn, 2008).

From the above mentioned it is clear that job stress has many definitions. For the purpose of this research job stress is, however, defined as a generic term used to refer to a temporary adaptation process, which is caused by an imbalance between job demands and the capability of the worker, and is accompanied by mental and physical symptoms (Mostert & Joubert, 2005).

3.2.1 Approaches to stress

According to Semenchuk and Larkin (2008) there are several theoretical positions formulated for examining and understanding stress and stress-related disorders. These include the stimulus-based approach, the response-based approach, and the transactional approach. According to Matthieu and

Ivanoff (2006) stress has traditionally been viewed as a response, as a stimulus, and most recently, as a transaction.

3.2.1.1 The stimulus-based approach

Hoffmann (1998) states that the stimulus-based approach attempts to describe the various unpleasant situations that cause stress.

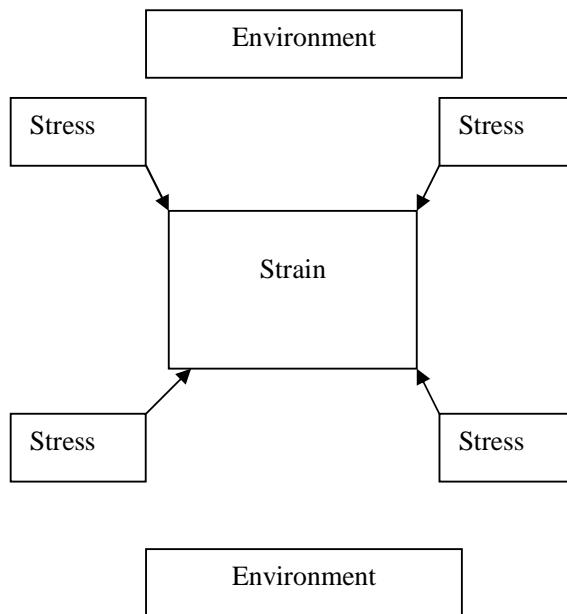


Figure 3.1 The stimulus-based approach (Adapted from Louw & Edwards, 1995, p. 645).

According to the stimulus-based approach when people are exposed to events or situations which place demands on them, they can cope with these demands up to a certain level and no damage will occur. However, people are only able to deal with a certain amount of pressure, and when this is exceeded and they can no longer deal with the demands temporary or permanent damage occurs (Norton, 1998). The stimulus-based approach is concerned with identifying stressful situations and determining how and why they affect the mind and body (Hoffmann, 1998). The basic stimulus-based approach was promoted by Sir Charles Symonds (1947), who stated that stress is a set of causes, not a set of symptoms (Cox & Mackay, 1981). Coetzer and Rothmann's (2006) definition of stress will fall under this

approach. Coetzer and Rothmann (2006) state that stress can be described as the stimulus or force that, if adequately strong, may cause tension in the individual who experiences it.

The stimulus-based approach classifies the various stressors that impact on people's everyday lives (Norton, 1998). Hoffmann (1998) states that this class of research focuses mainly on workplace factors, such as noise levels and job demands. Working under deadlines with large amounts of information to be processed would be rated as stressful under this approach, as would be monotony, isolation, and situations in which we have little control over events. Norton (1998) identified other stressors, such as stressful life events, including the death of a friend, failure at school or even an unwanted pregnancy. Problems of daily life are also seen as stressors, which are not always very intense but happen very often. Lastly, environmental stressors such as toxic industrial waste and high levels of noise are also seen as stressors (Norton, 1998).

3.2.1.2 Criticism of the stimulus-based approach

The stimulus-based approach is sometimes seen as being incomplete, as it does not identify what makes something into a stressor. Also, this approach does not take individual differences into account (Norton, 1998). Hoffmann (1998) also states that a problem with the stimulus-based approach is that particular situations are not inherently stressful, and may have a large variation in their effect on different people. For example, the noise of a live concert may be stressful for some people, while others may thrive on it. There are also variations in an individual's responses to the same situation at different times, which the stimulus-based approach does not acknowledge (Hoffmann, 1998). A great example of how individuals respond differently to stress, is the Yerkes Dodson curve.

Yerkes and Dodson (1908) examined mice involved in a simple learning task. The task put before the mice was to learn to distinguish a white from a black doorway and pathway so that the mice would not walk down the black pathway. Thus performance was measured by how many attempts the mice made prior to learning that exploring the dark pathway was incorrect. An

electric shock was the stimulus used to shape the mice's behaviour. The results of this study suggested that when mice are shocked with high-intensity electricity, they are quicker to go the other way, in this case through the white doorway and down the white path, than when one uses low-intensity shocks (Staal, 2004). This became the first Yerkes-Dodson principle, later becoming a "law" of performance. Over time this finding, and others, led to the assumption that moderate levels of arousal (often used synonymously with stress) will result in optimal performance; whereas too little arousal or too much arousal will degrade performance, a curved relationship sometimes termed an inverted U. The inverse of that is equally compelling, with too much exertion or strain, a persons performance is likely to decrease (Staal, 2004). Papworth (2003) states that according to the curve, a stress free life may lead to boredom and low performance, an acceptable amount of stress may lead to peak performance, and excessive stress may lead to lowered performance. Figure 3.2 displays the Yerkes and Dodson curve, as stress improves performance until a point, after which performance decreases (Staal, 2004).

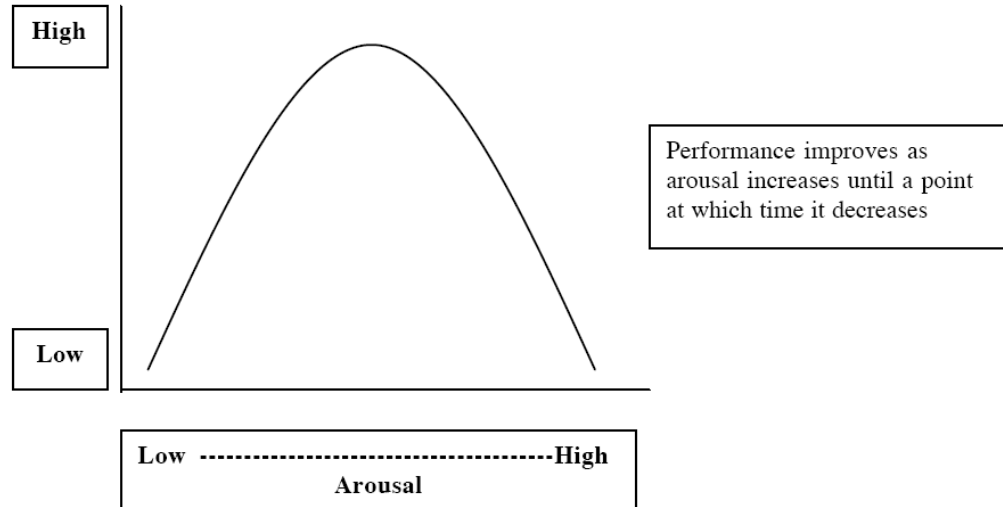


Figure 3.2 The Yerkes-Dodson curve (Adapted from Staal, 2004, p. 4).

3.2.1.3 The response-based approach

The response-based approach focuses on the responses to, or consequences of, stress rather than on the stressors themselves (like the stimulus-based approach) (Norton, 1998). As seen below, figure 3.3 displays the response-based approach, as it emphasizes the response of a stressful situation on an individual.

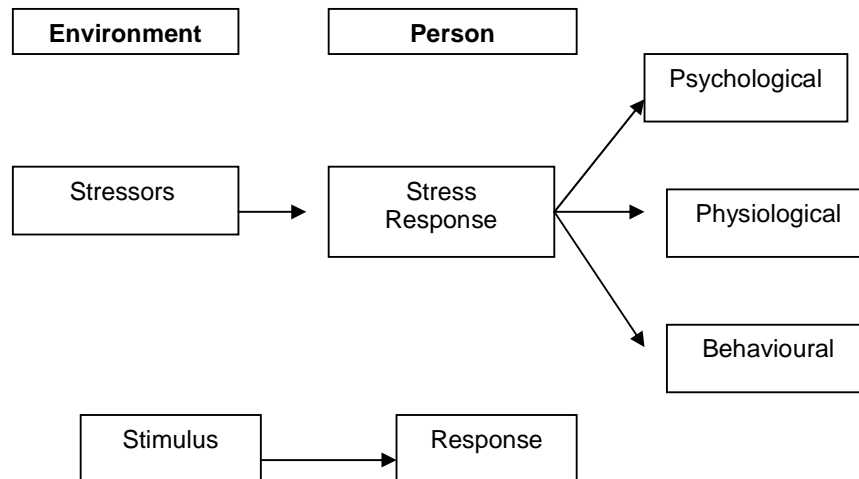


Figure 3.3 The response-based approach, based on Sutherland and Cooper, 1990 (Norton, 1998, p. 624).

Papworth (2003) defines stress simply as a physical and mental reaction to a perceived challenge. Halonen and Santrock (1997) also define stress as the response of an individual to circumstances that threaten them and strain their coping abilities. Hoffmann (1998) concurs with this, stating that the response-based approach describes the responses that occur in the body or the mind when individuals are confronted by an unpleasant situation. This approach is based on the work of the physiologist Hans Selye. Selye believed that stress has a wear and tear effect on the body, caused by the demands made on it (Halonen & Santrock, 1997). Selye hypothesised that the stress response is a built-in mechanism that comes into play whenever demands are placed on people, and it is therefore a defence reaction with a protective and adaptive function. In simple words, there is a general physiological reaction to all forms of stress, which usually acts in an individual's best interest. This

reaction is called the General Adaptation Syndrome (GAS). This theory suggests a three-stage process of response to stress (Hoffmann, 1998). The first stage is the stressors themselves, which place excessive demands on individuals. The second stage is a general stress response and the third and final stage is the specific symptoms of stress (Norton, 1998).

Halonen and Santrock (1997) state that during the first phase the body goes into a temporary state of shock, this is because the body senses the stress and tries to eliminate it. According to Papworth (2003) the automatic responses during the alarm stage are either flight, fight, or freeze. The individuals' body will lose muscle tone, temperature will decrease, and blood pressure will drop. After this "countershock" sets in and resistance to stress begins to increase. The individuals' body will then increase hormone release from the adrenal cortex (Halonen & Santrock, 1997). This in turn leads to the second stage, which is resistance to stress. Stress hormones pick up in the body, and blood pressure, the heart rate, temperature, and respiration rate all increase rapidly (Halonen & Santrock, 1997). According to Papworth (2003) this stage shows resistance to the stress symptoms, and prolonged exposure to the stressful stimuli produces the next stage.

If the resistance stage succeeds, the body will return to a normal state. However, if it fails and stress continues, the individual will move into the exhaustion stage. The individual may collapse due to exhaustion, which increases the vulnerability to various diseases (Halonen & Santrock, 1997). This can include burnout or serious illnesses as a result of the inability to ward off physical and mental challenges (Papworth, 2003).

3.2.1.4 Criticism of the response-based approach

Norton (1998) noted the following criticism against the GAS approach. Most of the time responses to stressors do not always follow the same pattern as suggested by the GAS approach. Louw and Edwards (1995) also noted that individual responses to stimuli do not always follow the same pattern proposed by the GAS approach. According to Hoffmann (1998) this model is inflexible, as it ignores the purely emotional or mental factors that can produce a wide variation in the way individuals respond to potentially stressful

situations. Individual responses are stimuli specific, and depend highly on the type of hormone secreted by bodily functions. A good example is an anxiety-predicting stimulus, which increases the production of adrenalin, while the hormone noradrenalin produces a more aggressive response (Louw & Edwards, 1995).

The GAS approach is also seen as being too simplistic, as it does not include psychological responses to stress (Norton, 1998). Research shows that a psychological response to stress is not directly determined by the actual presence of the stressor, but rather by the psychological impact the stressor has on the person (Louw & Edwards, 1995).

3.2.1.5 The transactional / interactional approach

Spangenberg and De Villiers (2007) state that the transactional stress theory has generated the most research, and offers a very different perspective on work stress from traditional approaches (Dewe, 1997).

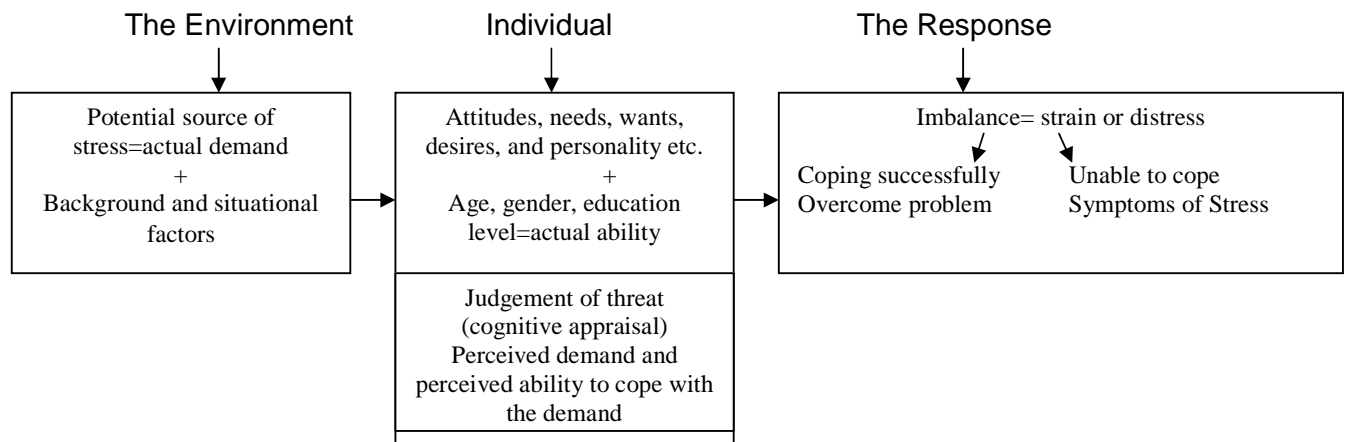


Figure 3.4 The transactional approach (Adapted from Sutherland & Cooper, 1996, p. 16).

The transactional approach tends to shift the emphasis from objective stressors and strains, to the process by which an individual appraises a situation as stressful. This process is clearly illustrated in figure 3.4. The transactional, or interactional, approach focal point is on thoughts and

awareness that impact the overall individual stress response an individual can have in his or her mind and body (Matthieu & Ivanoff, 2006).

According to Matthieu and Ivanoff (2006) the transactional approach is a framework that integrates stress, appraisal, and coping theories as they relate to how individuals react to psychologically stressful situations. According to the transactional approach, stress is primarily the result of an individual's perception of risk factors in the environment and the assessment of whether personal resources will enable one to meet the environmental challenges or whether a person will become overwhelmed by environmental threats (Spangenberg & De Villiers, 2007). One of the cornerstones of the transactional approach is the incorporation of the appraisal theory. Primary appraisal is an individual's evaluation of an event or situation as a potential hazard to his or her well-being. Once the cognitive interpretation is determined, a secondary appraisal is made which involves the individual's evaluation of his or her ability to handle the event or situation (Matthieu & Ivanoff, 2006). The transactional model specifies that an individual's response to a stressor is a function of two linked cognitive processes: primary appraisal and secondary appraisal. In primary appraisal the stressor is construed as a threat, as harmful, or as a challenge. Once this cognitive interpretation is determined, a secondary appraisal is made in which the individual decides if he or she has the coping resources to deal effectively with the stressor (Roesch, Weiner & Vaughn, 2002). The transactional approach assumes that coping with stress consists of an individual's constantly changing cognitive and behavioural efforts to manage external and/or internal demands that are appraised as exceeding his/her resources (Spangenberg & De Villiers, 2007).

As stated above, there are a number of different approaches to stress, so to are there a number of causes of job stress, a discussion on which will follow next.

3.2.2 Causes of job stress

Cooper (2000) states that job stress is a growing problem, and can be a result of organisations downsizing, outsourcing and less secure employment

contracts for employees. Certain types of work, as well as the physical and social attributes of the work environment, are associated with higher levels of physiological and psychological stress related illness (Hoffmann, 1998). According to Papworth (2003) the three major causes of stress at work are change, people, and a lack of control over processes.

3.2.2.1 Environmental factors

According to Halonen and Santrock (1997) many circumstances can produce stress in an individuals' life. The influence of an individual's social construction of stressful experiences should be taken into account (Coetzer & Rothmann, 2006).

3.2.2.1.1 Conflict in the environment

Conflict occurs when a person has to make a decision between two, or more, incompatible stimuli, and environments can often create conflict. There are three major types of conflict, namely the approach / approach; the avoidance / avoidance, and the approach / avoidance conflict. The approach / approach conflict occurs when a individual needs to choose between two attractive stimuli, like whether to watch a movie or go for dinner, and is the least stressful of the three types. The avoidance / avoidance conflict occurs when an individual needs to choose between two unattractive stimuli, like going for a painful operation or having a sore back. This is obviously more stressful than having to choose between two attractive choices. Lastly, the approach / avoidance conflict is when a single stimulus has both positive and negative characteristics, like having to decide if a piece of chocolate cake should be ordered, as it will taste really nice, but will cause weight gain, and this can be highly stressful (Halonen & Santrock, 1997).

3.2.2.1.2 Frustration in the environment

According to Mazibuko (1996) much of what individuals want, at the conscious and unconscious level, cannot be achieved. The world is also full of frustrations that build up and make life even more stressful. Frustration refers

to a situation when a person can not reach a desired goal or outcome. Frustrations can be anything from not having the money to buy a car to a divorce (Halonen & Santrock, 1997).

3.2.2.2 Physical environmental stressors

Physical stressors include, among others, vibration, extremes of temperature, lighting, cleanliness of the work area and noise. Studies in England showed that blue-collar workers who were exposed to unwanted noise experienced fatigue, headaches, irritability and poor concentration levels. Excessive noise also lowers the quality of interpersonal relationships or it can make social interaction difficult. Poor lighting, or too much can easily cause headaches and eye strain, and makes it difficult for employees to complete tasks, leading to frustration and tension (Norton, 1998). Jaffe-Gill et al. (2008) also states that factors such as noise and overcrowding, poor air quality, ergonomic problems and health and safety risks such as heavy equipment and toxic chemicals are contribute to the development of stress.

3.2.2.3 Social environmental stressors

According to Gold and Roth (1993) relationship problems are often the main cause of stress. Norton (1998) states that poor relationships in the workplace can also be a central source of stress for employees. According to Theron (2005) globalisation is one of the biggest trends of this time. Irrespective of the time differences between countries, fast or even immediate response is still required. This may lead to professionals stretching themselves to the limit by trying to be available 24 a day via cell phones or e-mail. Workers often do not have the luxury of leaving work behind when they go home, and this cause's enormous levels of stress in personal relationships (Theron, 2005). Jaffe-Gill et al. (2008) also found that distant, uncommunicative supervisor's, poor performance from subordinates, office politics, competition, and other conflicts among staff such as bullying or harassment, contribute greatly to the development of job stress.

3.2.2.4 Task demands

New technology, such as the web, emails and faxes, has added to burden of information overload and accelerated the pace of work expected from employees, which can take their toll on employee's health (Cooper, 2000; Theron, 2005). Theron (2005) states that technological advancements may be the single largest stressor of this day and age. Bosman, Rothmann and Buitendach (2005) state that South Africa is no exception, as South African companies are also exposed to the effects of the world economy, and technological advancement. The stress caused by the demands of working with new technology is referred to as Techno-stress (Norton, 1998).

Research conducted by Marshall and Cooper (1981) found that work overload, time-management problems and work-home conflicts contributed significantly to job stress. Overload occurs when stimuli become so intense that a person can no longer cope (Halonen & Santrock, 1997), and when job demands are too high, stress reactions are bound to occur (Mostert & Joubert, 2005). Greenhaus and Callanan (1994) also found that time pressure and strict deadlines are also a cause of stress in the workplace.

3.2.2.5 The nature of work

The different types of work that people do make different demands on them; an example would be shift workers, as shift work is known to be a major source of stress. This is also very important in South Africa, as approximately 27% of workers are involved in some form of shift structure (Norton, 1998). Hoffmann (1998) also states that shift work is a cause of stress in the work place, because of the disruption of circadian rhythms and social life. According to Leka, Griffiths, and Cox (2003) strict and inflexible working schedules, unpredictable working hours, and long and unsocial working hours are often seen as stress related hazards at work.

Research conducted by Rothmann et al. (2003) found that job demands and lack of organisational support can be seen as major stressors in an organisational environment. Results from a study done by Wiese, Rothmann, and Storm (2003) showed that demands of a job and lack of resources were

strongly related. This implies that a lack of resources increase the levels of stress because of job demands. Not having resources such as staff, money and equipment can make situations even more difficult to deal with crisis situations, paperwork and performing tasks not in the job description (Wiese et al., 2003).

3.2.2.6 Gender roles and stress

Work overload can result from a combination of work and domestic demands, and this is often the case when women pursue both their own careers and try to be efficient homemakers (Norton, 1998). The International Labour Organization (2001) state that countless surveys have confirmed the importance of family responsibilities in raising the stress level of individuals. Research carried out in Sweden found that the total workload of women employed full time is much higher than that of men employed full time. In addition to their family responsibilities, other factors also tend to make women more susceptible to work-related stress. These include lower levels of control in their jobs, especially since majority of women still tend to occupy less senior jobs than men; the higher proportion of women who work in unstable forms of employment; the increase of women in high-stress occupations; and the prejudice and discrimination suffered by many women who are in more senior positions (International Labour Organization, 2001). Theron (2005) also states that women have increasingly moved into positions of greater responsibility. This has resulted in the roles of men and women changing, and if this is not managed carefully it may contribute to role confusion which in turn causes additional stress.

3.2.2.7 Organisational factors

A number of organisational factors have been identified as potential causes of stress, organisational climate, changes in the work environment, and participation in decision making will be discussed.

3.2.2.7.1 Organisational climate

The organisational climate also plays a direct role in the causation of traumatic stress reactions, and organisational factors are particularly relevant when dealing with work-related psychological trauma (Renck et al., 2002).

Organisational climate refers to employment practices, management values and organisational goals (Norton, 1998). Poor work organisation, including the way jobs are designed, and work systems are managed can cause stress. Excessive and unmanageable demands and pressure can be caused by poor work design and poor management (Leka et al., 2003). Poor communication, lack of clarity about objectives, and poor leadership may lead to a stressful working climate (Leka et al., 2003). According to Cooper (1984) potential sources of stress within the organisational climate include no sense of belonging, a lack of effective consultation, restrictions on behaviour, and office politics.

3.2.2.7.2 Changes in the work environment

Hoffmann (1998) states that changes in work environment, e.g. to a different line of work or level of responsibility may result heart attacks occur in the year following because of the stress caused by such changes. Increased job insecurity can also be seen as a stressor, and is associated with increased levels of burnout and decreased levels of work engagement (Bosman et al., 2005). Leka et al. (2003) also identified job insecurity, under promotion or over promotion, and being over-skilled or under-skilled for a job as sources of stress within the workplace. Hopson (1984) define a transition as an 'interruption' in a person's life. Transitions can be highly stressful to an individual if they are unpredictable, unfamiliar, involuntary, or of a high magnitude.

3.2.2.7.3 Participation in decision-making

The extent to which workers are involved in decision-making can determine how much stress they experience, especially if the decision-making affects them (Norton, 1998). Greenhaus and Callanan (1994) states that not only

does low participation in decision-making cause stress, but poor communication and pay inequities also contribute to stressful organisational characteristics. Leka et al. (2003) also noted lack of participation in decision making and lack of control over working methods, work hours, and the work environment as potential sources of stress in an organisation.

3.2.2.8 Personality traits contributing to stress

According to Couper (2005a) personality types are important determinants of stress, as some people can continue functioning for years while handling enormous amounts of stress, while others might cave in within a few months after handling the same amount of stress. Theron (2005) also states that the most interesting contributor to developing stress is an individual's personality. Certain personality types can render an individual more, or less, susceptible to the effects of stress (Halonen & Santrock, 1997; Maslach, 1986; van den Berg et al., 2006).

3.2.2.8.1 Type A personality

One of these personality factors include Type A, B, or C behaviour pattern. Type A behaviour and Type B behaviour were identified by two cardiologists, Meyer Friedman and Ray Rosenman (Barlow & Durand, 2005). While type B behaviour is more relaxed, less concerned about deadlines, and seldom feels under pressure (Barlow & Durand, 2005). Type A behaviour is often seen as being excessively competitive, hard-driven (especially for time), impatient, and may even have anger outbursts (Barlow & Durand, 2005; Halonen & Santrock, 1997). Theron (2005) states that the characteristics of type A are lots of drive, energy, a competitive spirit, focus, punctuality, impatience, and being very good at applying pressure on themselves and others. Therefore type A personalities tend to be more prone to stress as a result of their driving nature (Theron, 2005). Type C behaviour has characteristics such as being uptight, inhibited, and emotionally inexpressive.

3.2.2.8.2 Cognitive factors

Cognitive appraisal is Richard Lazarus' term for an individuals' interpretation of events in their lives as harmful, challenging, or threatening, as well as the individuals' determination of whether or not they have the resources available to effectively cope with the event. For example, one person may perceive a job interview as stressful, while another person may perceive it as a challenge. Therefore, what a person sees as stressful depends on how that person cognitively appraises and interprets events (Halonen & Santrock, 1997). According to Roesch et al. (2002) behavioural medicine research has focused on the relationship between specific cognitive factors and psychological health. These factors include an appraisal of a situation, as one's initial analysis of a stressor is an indication of how serious the stress is and if an individual possesses the required resources to overcome it. Research has also focused on how post-hoc interpretations or redefinitions of why a stressful event occurred (causal attributions) impact adjustment as well as coping to a stressful situation.

There is a fair amount of agreement in the current literature on appraisal and stress. And it has been found that cognitive appraisals play a significant mediating role in biological reactions to stress, and performance outcomes depend in part on whether the subject appraises the situation as a challenge or a threat (Bourne & Yaroush, 2003).

One of these cognitions is the self-defeating thoughts and behaviours associated with perfectionism. Brady (2006) defines a perfectionist as a conscientious, productive, and achievement-oriented individual, who is an extremely careful person who wants all their tasks and projects to be completed to the final detail, without flaws.

Perfectionism can lead to equally extreme feelings of anxiety, hopelessness and despair (Meindl, 2009). According to Stoeber and Rennert (2008) perfectionism is a personality characteristic that is associated with increased stress, maladaptive coping, and burnout.

3.2.2.9 Stressors in the call centre environment

Musico (2008) states that the customer interactions are critical in call centres and this may result in agents having a difficult task. Musico (2008) even goes as far as to state that call centre agents undertake very, very high pressure jobs. According to Taylor et al. (2003) research conducted in the UK showed that more than a quarter of call centre handlers said they experienced stress either daily or several times a week, and more than half at least several times a month.

3.2.2.9.1 Task demands

Miller and Fisher (2005) state that call centre jobs involve low skill levels, and tasks are often highly repetitive and monotonous. Stressors identified as fairly specific to call centre work include forceful and excessive performance monitoring (enabled by the call centre technology) and emotion regulation in customer-employee interaction (Miller & Fisher, 2005). Research conducted by the Swedish Work Environment Authority identified problems such as time pressure; high workload; limited work content; little variation in work tasks in physical and mental terms; and a lack of possibilities for workers to influence their individual work situation (Berg, 2004).

Call centre employees also experience job stress as a result of the conflicting demands of the company, supervisors, and customers (DeRuyter et al., 2001).

3.2.2.9.2 Working hours

Long hours of work, permanent night shifts and incredibly high work targets are some of the other factors that contribute to high levels of job stress in call centres (Seshu, 2003). Employing high numbers of people, in large, open-plan offices, who have to handle a never-ending flow of customers' calls while reciting the same scripts for long periods of time without frequent breaks, can result in excessively stressful working environments (Stress, 2007). The Swedish Work Environment Authority also identified problems such as lengthy

work periods in front of a computer screen as a source stress in call centres (Berg, 2004).

3.2.2.9.3 Monitoring

The 2001 Trades Union Congress (TUC) survey in Australia found extreme monitoring of work as a major source of workplace stress of call centre operators. According to Taylor et al (2003) call monitoring is a major source of pressure for call centre agents. Miller and Fisher (2005) stressors that have been identified as fairly specific to call centre work include intense and excessive performance monitoring.

3.2.2.9.4 Inability to solve customers' problems

Another contributing factor to the high stress levels among call centre employees is that they are often not capable of fixing clients problems, even though they are expected to. According to the Customer Experience Management global benchmark study from the Strativity Group (a researching and consulting firm) only 29 percent of respondents indicated that their employees have the tools to solve customer problems (Musico, 2008).

3.2.3 Symptoms of job stress

According to Couper (2005a) stress has different effects on different people. Some people manifest stress physically, in terms of illness, while others manifest it in terms of emotional difficulty. Job stress has many negative consequences for the individual and for the organisation. This includes cognitive symptoms such as memory problems, an inability to concentrate and trouble thinking clearly (Jaffe-Gill et al., 2007).

Jaffe-Gill (2008) states that the early warning signs of job stress include, headaches, irritability, sleep disturbance, upset stomach, difficulty concentrating, low morale and poor relations with family and friends. Common job stressors such as a hostile work environment, and long hours of work can also accelerate the onset of heart disease, including the likelihood of heart attacks. Studies suggest that because blue-collar job employees tend to have

little control over their work environments, they are more likely to develop cardiovascular disease (American, 2007). Paine (1982) goes so far as to state that burnout is a stress symptom.

3.2.3.1 Emotional symptoms

Often when individuals experience stressful circumstances they display negative emotions such as anxiety, anger, sadness, and fear (Halonen & Santrock, 1997). Other emotional symptoms of job stress include moodiness, restlessness and a short temper (Jaffe–Gill et al., 2007). According to Greenhaus and Callanan (1994) apathy, boredom with life, irritability, negativism and an inability to concentrate can be seen as symptoms of job stress. The International Labour Organization (2001) note that unhealthy levels of job stress lead to a variety of disorders and illness. These include chronic fatigue, depression, insomnia, anxiety, migraine, emotional upsets and allergies. Hoffmann (1998) states that if a stress situation continues, a range of reactions, including depression and withdrawal, may occur. If stress is long-term or predominantly severe, marked emotional changes may take place (Hoffmann, 1998).

3.2.3.2 Physical symptoms

Along with its emotional toll, prolonged job-related stress can drastically affect an employee's physical health (Jaffe–Gill et al., 2007). According to Coetzer and Rothmann (2006) being employed in a job which is stressful and at the same time experiencing that the work load and time pressure are unmanageable, will result in physical ill health symptoms.

Stress has many physical symptoms, of which some are obvious and some are not. Obvious symptoms include fatigue, irritability, crying jags, anxiety attacks, and loss of appetite or weight gain. Less obvious symptoms are teeth grinding, insomnia, nightmares, forgetfulness, low productivity, and an inability to concentrate (McKay, 2001). Stress can also cause a large number of muscle aches and pains, as the body is under constant tension. An individuals poise, posture, and even general appearance, can suffer and this may lead to skeletal complaints (Papworth, 2003). According to Hoffmann (1998)

physically, stressful demands are handled mainly by the adrenal gland. This results in increased nervous-system activity, an increase in heart rate and blood pressure, surface constriction of blood vessels so that the blood leaves the skin to supply the muscles with more sugar and oxygen and mobilization of the liver's energy reserves through the release of stored glucose.

Jaffe–Gill et al. (2007) go on to say that physical symptoms of stress include weight loss or gain, insomnia and chest pain. In the longer term, stress can contribute to hypertension, and as a consequence to the development of heart disease, as well as to peptic ulcers, inflammatory bowel diseases and musculoskeletal problems. It may even alter immune functions, which may in turn facilitate the development of cancer (International Labour Organization, 2001). Greenhaus and Callanan (1994) identified symptoms such as increasing respiration, high gastric acid production, frequent headaches, nausea, muscle spasms, a tendency to burst into tears or inability to cry and frequent heartburn. Stress can also cause a person's immune system to become weaker, and this can open the door to a variety of illnesses (Papworth, 2003).

3.2.3.3 Behavioural symptoms

Behavioural symptoms include procrastination, use of drugs, cigarettes or alcohol and nervous habits such as nail biting (Jaffe–Gill et al., 2007; Greenhaus & Callanan, 1994). The International Labour Organization (2001) states that several recent studies have emphasised the links between work-related stress, violence at work, the abuse of drugs and alcohol and tobacco consumption. McKay (2001) also found that stressed individuals have an increase in drug, alcohol, and tobacco use. Stressful events can prevent a person from thinking straight; this may lead to concentration and memory impairment (Papworth, 2003).

3.2.4 An integrated model of the causes, symptoms, and outcomes of job stress

The above mentioned components of job stress, including the causes and the symptoms, and their dynamic interaction are reflected in figure 3.5.

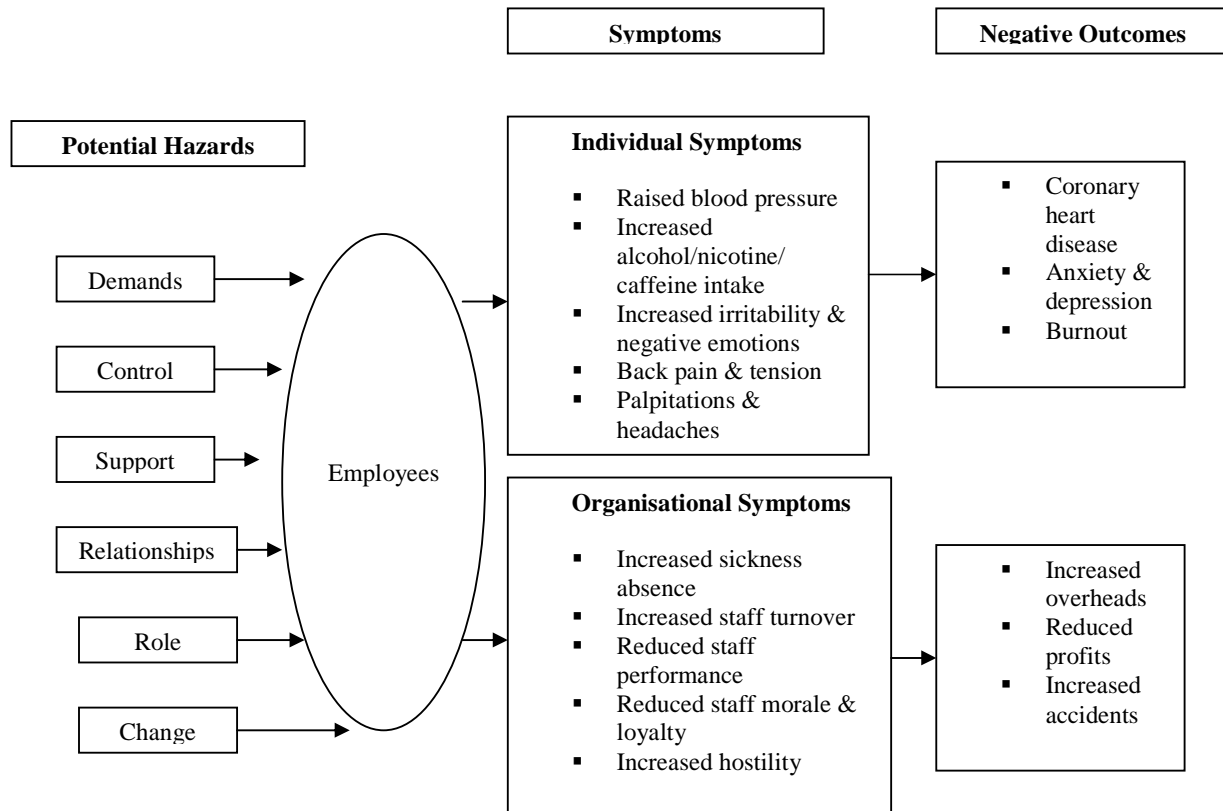


Figure 3.5 A Model of Work Stress (Palmer & Cooper, 2004, p. 3).

One of the major consequences of ongoing and prolonged job stress is burnout (Couper, 2005). A discussion on burnout will follow subsequently.

3.3 Nature and definitions of burnout

Scott (2006) states that burnout was first coined in 1974 by Herbert Freudenberger. Freudenberger originally defined 'burnout' as, "the extinction of motivation or incentive, especially where one's devotion to a cause or relationship fails to produce the desired results." According to Schaufeli (2003) the term "burnout" was first used as a colloquial term by professionals such as, poverty lawyers, social workers, teachers, and hospice counsellors. It was used to denote gradual energy depletion and loss of motivation and

commitment that was often associated with a wide array of other physical and mental symptoms. According to Maru (2002) burnout is a condition that is on the rise among workers today and is even seen as an occupational hazard for various people-oriented professions (Maslach, 1998) as it is most commonly found among individuals who have intense contact and involvement with others during the course of their workday (Maru, 2002). Burnout is therefore a common problem amongst doctors in South Africa, and is often exacerbated by working in the rapidly changing health care environment of South Africa, accompanied by the stress caused by uncertainty and the constant need for adaptation, as well as the high level of workload (Couper, 2005).

Couper (2005) states that exposure to excessive and prolonged stress is the main cause of burnout. Burnout should be distinguished from concepts such as stress, as burnout is a result of chronic, ongoing stress (Storm & Rothmann, 2003). Table 3.1 clearly tabulates the difference between stress and burnout.

Table 3.1 The differences between stress and burnout*.

Stress vs. Burnout	
Stress	Burnout
Characterised by over engagement	Characterised by disengagement
Emotions are over reactive	Emotions are blunted
Produces urgency and hyperactivity	Produces helplessness and hopelessness
Loss of energy	Loss of motivation, ideals, and hope
Leads to anxiety disorders	Leads to detachment and depression
Primary damage is physical	Primary damage is emotional
May kill a person prematurely	May make life seem not worth living

* Smith et al., 2007

Originally, burnout was thought of as a problem only experienced by those who are working in the human services sector. Maslach (1982) states that burnout can occur among individuals who do “people work” of some kind, particularly when the people they deal with are troubled or are having problems.

Burnout is defined a state of emotional and physical exhaustion caused by extreme levels of stress as well as prolonged stress. Burnout can occur when an individual feels overwhelmed and unable to meet constant demands. As the stress continues, workers begin to lose the interest or motivation that led them to take on a certain job in the first place (Smith, Jaffe-Gill, Segal & Segal, 2007). According to Reichel and Neumann (1993) burnout can be defined as a state of physical, emotional, and mental exhaustion, as well as cynicism towards one's work in response to chronic organizational stressors. Working in a call centre is often seen as being stressful, and this can foster burnout (Visser, 2007). Burnout can also be seen as a final stage of a breakdown that has resulted from a long term imbalance of demands and resources, and can be accompanied by chronic malfunctioning at work (Mostert & Joubert, 2005). According to Sutherland and Cooper (1996) burnout is often associated with tension, irritability and low self-esteem.

3.3.1 Dimensions of burnout

Burnout is comprised of three core dimensions, namely emotional exhaustion, depersonalisation, and personal accomplishment (Brenninkmeijer & VanYperen, 2003; Maslach, 1998). These three dimensions will now be discussed.

3.3.1.1 Emotional exhaustion

According to Maru (2002) emotional exhaustion is considered to be the most important of the three components and represents the basic individual stress dimension of burnout (Maslach, 1998). Emotional exhaustion is when a person feels mentally drained and “empty”, and feels like one has been depleted of ones emotional resources (Brenninkmeijer & VanYperen, 2003; Maslach, 1998). A person gets overly involved, and feels overwhelmed by the emotional demands imposed by other people. Employees lack the energy to face another day (Maslach, 1982). “I feel emotionally drained because of my work” is an example of a statement an individual would make if suffering from emotional exhaustion (Paine, 1982). Chronic exhaustion can lead people to distance themselves emotionally and cognitively from their work, this may

lead to them being less involved with, or responsive to the needs of other people or the demands of the job (Rothmann et al., 2003).

Maslach (1998) states that the major sources of emotional exhaustion are personal conflict at work and work overload. Emotional exhaustion can be noticed in physical characteristics such as waking up just as tired as when going to bed or lacking required energy to take on another task (Maslach & Leiter, 1997).

3.3.1.2 Depersonalisation

According to Maru (2002) this symptom of burnout typically occurs after emotional exhaustion and tends to be a direct response to the stressors of the job. It refers to an individual's personal detachment from work and other people and represents the interpersonal dimension of burnout (Maru, 2002.; Maslach, 1998). Depersonalisation refers to a cynical, negative attitude towards one's work or towards the recipients of one's service. For instance, teachers may make cynical comments about their pupils (Brenninkmeijer & VanYperen, 2003). According to Maslach (1982) depersonalisation leads to a detached, callous and even dehumanized response signals. An example of a depersonalisation statement would be "I've become more callous toward people since I started working here" (Paine, 1982). Employees displaying the depersonalisation symptom of burnout will take on a distant attitude toward work as well as towards the people on the job (Maslach & Leiter, 1997).

3.3.1.3 Personal accomplishment

Finally, the third symptom of burnout is reduced personal accomplishment, which denotes a reduced sense of competency in comparison to one's past functioning (Brenninkmeijer & VanYperen, 2003). Maslach (1982) states that individuals have a gnawing sense of inadequacy, which may result in a self-imposed decree of failure. Maslach and Leiter (1997) state that individuals experiencing a sense of diminished personal accomplishment belittle the things that they are successful at and no longer feel they are able to make a difference through their work or personal interactions. These feelings of inadequacy directly affect an individual's self-efficacy. The personal

accomplishment dimension represents the self-evaluation component of burnout (Maslach, 1998).

3.3.2 Approaches to burnout

According to Schaufeli (2003) there are many theoretical explanations that cover different levels of burnout. Several approaches to burnout will now be discussed.

3.3.2.1 The ecological perspective

According to Waite (1994) ecology is the study of the relationships of organisms to one another and their surroundings. Therefore, to understand burnout from this approach, a *person*, his / her *ecosystem*, and their *reciprocal impact* each has on the other must be understood. According to this approach the dynamic interaction of personal factors (such as poor physical health) and environmental factors (such as work overload), which also includes the influence of other ecosystems (family problems), generates burnout (Carroll & White, 1982). On each of these levels, there may be some situations a person can control, and at the same time there are situations out of human control that may cause burnout. There are a number of environmental factors that may cause burnout; these include an escalating pace of life, extended life spans, escalating demands of work, and intense commitment to work (Gray, 2002).

3.3.2.2 The authoritarian-moral approach

The authoritarian-moral approach to burnout is based on the “theory X” view of management. Theory X is based on the assumption that most people lack ambition, avoid responsibility, resist change, are unconcerned with the needs of organisations, and dislike work. Therefore this approach assumes that the role of a manager is to direct, manipulate, control, reward, and punish employees (Carroll & White, 1982). Norton (1998) states that Theory X managers assume that all workers need close supervision, and that they have little or no ambition to move up in organisations. This approach is resistant to positive feedback because of its self-justifying moral rigidity. Because of the high stress conditions staff become burned up. However, even burnout is

denied by statements such as “there’s no such thing as burnout-only staff who do not want to work” (Carroll & White, 1982).

3.3.2.3 The work environment approach

The Work Environment Approach views burnout as a result of inadequate policies, structures, and functions within the work environment that causes frustration and stress. Burnout is considered to be due to the ongoing loss of support from outside the organisation, which can increase a workers vulnerability to burnout (Carroll & White, 1982).

3.3.2.4 The job demands-resources model of burnout

Figure 3.6 clearly illustrates the relationship between job demands and job resources, and burnout, as discussed in the job demands-resources model of burnout.

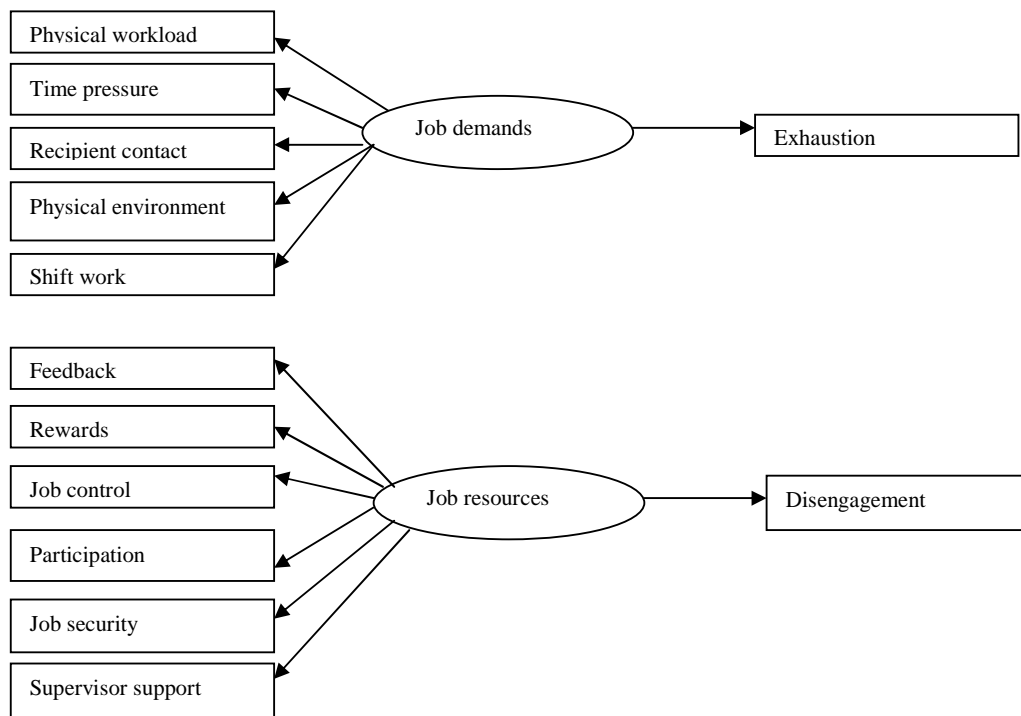


Figure 3.6 The job demands-resources model of burnout (Demerouti et al., 2001, p. 502).

The job demands-resources model of burnout suggests that working conditions can be categorised into two broad categories, namely job demands and job resources (Demerouti, Bakker, Nachreiner & Schaufeli, 2001). Each category relates in different ways to negative and positive outcomes, and may be typical of specific occupations (Prieto, Soria, Martinez & Schaufeli, 2008).

Job demands are any physical, psychological, organisational, or social aspects of a job that require physical and / or mental effort, therefore job demands are often associated with certain physiological and psychological costs (Demerouti et al., 2001). Job resources refer to any physical, psychological, organisational or social aspects of the job that may result in an employee being functional in achieving work goals, and stimulate personal growth and development. Job resources may also reduce job demands at the associated physiological and psychological costs. According to Demerouti et al. (2001) the demanding aspects of work may lead to constant overtaxing and exhaustion. A lack of resources may make it difficult to meet job demands, which further leads to withdrawal behaviour, and the long-term consequence of this withdrawal is disengagement from work. Therefore, one may argue that the interaction between job demands and job resources plays an important role in the development of the exhaustion and disengagement dimensions of burnout. Research conducted by Demerouti et al. (2001) showed that job demands are primarily related to the exhaustion component of burnout, whereas lack of job resources is primarily related to disengagement.

3.3.3 Causes of Burnout

A number of factors have been identified as sources of burnout; these factors are highlighted in the subsequent discussion.

Paine (1982) states that since burnout is caused by prolonged exposure to stress, all the various personal and environmental factors that cause stress for employees must be considered as potential causes of burnout. McKay (2001) states that many workers are afraid of losing their jobs and are therefore working harder and longer hours to prove their worth. Employees who are not victims of mass layoffs often have to work harder to fill the space left by their

departed colleagues, which leads to high levels of frustration and even burnout. Smith et al. (2007) found that people most at risk for developing burnout are employees who feel underpaid, underappreciated, or criticized for matters beyond their control. Service employees, who spend their work lives attending to the needs of others, are also at risk. Research conducted by Visser (2007) found that six independent variables are associated with burnout in call centres. This includes a lack of career and promotion opportunities, work overload, lack of skill variety, emotional labour, electronic performance monitoring and competing management goals. Research also found that the repetitive and routine nature of call centre tasks also contributes to the development of burnout (Visser, 2007).

3.3.3.1 Lack of career and promotion opportunities

Research conducted by Magennis and Smith (2005) found that workers who experience adequate promotion opportunities are less likely to develop high levels of burnout. According to Love (2007) the “no-growth status” of many smaller businesses has increased pressure on employees for higher productivity and in many instances reduced pay as well. Within many organisations, there are also fewer opportunities for promotion and growth, and as a result job burnout affects too many people’s lives. Employees who perceive that promotions are not awarded fairly are also likely candidates for burnout (Love, 2007).

3.3.3.2 Work overload

According to Maslach (1982) a very common contributor to burnout with in a job setting is overload. The work environment in which employees currently function demands more of them than today compared to previous years (Storm & Rothmann, 2003). Overload can be seen as a burden that exceeds the individuals handling ability, be it emotional or physical. For employees in service industries, overload occurs when there are too many people and too little time to adequately see to their needs. The strain of having to deal with so many people may lead to the employee pulling back psychologically and

getting less involved with the clients. Visser (2007) also found that work overload is a great cause of burnout.

3.3.3.3 Lack of skill variety

According to Smith et al. (2007) if the majority of an individual's day is spent on mind-numbingly, dull or unpleasant tasks, the individual is likely to develop burnout. Boredom from doing work that never changes or doesn't challenge a worker also puts an individual at risk for developing burnout. Hoffmann (1998) states that boring, repetitive work can increase the chances of developing depression sleep disturbances, and stomach disorders.

3.3.3.4 Emotional labour

According to Brotheridge and Grandey (2002) emotional labour can be conceptualised in two main ways. Firstly, certain occupations require certain emotional expression, and in some cases, emotional suppression for effective workplace interaction (Gopalan & Satoris, 2008). Secondly, job-focused emotional labour refers to the level of emotional demands in an occupation (Brotheridge & Grandey, 2002).

Emotional labour and burnout have been the focus and concern of industrial and organisational psychologists for years, and the positive correlation between emotional labour and burnout has been widely documented (Gopalan & Satoris, 2008). Research conducted by Gopalan and Satoris (2008) showed that emotional labour resulted in high emotional exhaustion, cynicism, and a lack of professional accomplishment.

3.3.3.5 Excessive performance monitoring

Research conducted by Milner et al. (2007) showed that aspects of performance monitoring have a differential impact on employee well-being. As the very existence of a form of technology designed specifically to observe every facet of an employees work behaviour is intrinsically, excessively intense, and performance monitoring is related to burnout. Love (2007) also

states that poor supervisory practices, such as being overly critical or expecting too much can lead to employee burnout

3.3.3.6 Competing management goals

According to Carroll and White (1982) the clarity and feasibility of goals and objectives can determine the degree and extent of burnout. Smith et al. (2007) also state that setting unrealistic goals or having them imposed upon you may result in burnout. Couper (2005a) affirms that burnout is often related to unrealistic, high aspirations and expectations of oneself, combined with impossible goals.

Scott (2006) maintains that when it is not clear to employees how to succeed, it's harder for them to enjoy their work, and feel they're doing a good job. If the job description isn't explained clearly, or if the requirements are constantly changing and expectations are otherwise unclear, workers are at higher risk of burnout. In some circumstances it's just not possible to do a job as it's explained. For example, if the amount of time given is not sufficient to complete a task appropriately, it's really not possible to do the job well. Workers will put in a lot of effort and never feel successful with what they have done, which leaves them at risk for burnout (Scott, 2006).

3.3.3.7 Lack of control

Burnout is high when individuals lack a sense of control over the service they are providing. This lack of control can be due to superiors telling employees exactly what to do, how to do it and when to do it. It can also be as a result of not having any input on organisational policies and decisions that affects an individual's job. This may all add to the emotional strain of helping relationships (Maslach, 1982). Scott (2006) also states that employees who feel restricted and unable to exercise personal control over their environment and daily decisions tend to be at greater risk for burnout. Poor communication in a company can cause or exacerbate some of these problems, like little recognition. When an employee has a problem and can't properly discuss it with someone who is in a position to help, this can lead to feelings of low personal control (Scott, 2006).

3.3.3.8 Lack of recognition

Due to downsizing, employees are often expected to give more in terms of time, skills, and effort, but they are receiving less in terms of career opportunities, lifetime employment, and job security (Bosman et al., 2005). Previous research has shown a statistically significant relationship between job insecurity and burnout (Bosman et al., 2005).

Awards, public praise, bonuses and other tokens of appreciation and recognition of accomplishment go a long way in keeping staff morale high. Where accolades are scarce, burnout is a risk. Some occupations are naturally stressful, but workers accept it, along with a pay check—if the pay check is sufficient. However, if demands are high and financial compensation is low, the risk of burnout goes up (Scott, 2006). McKay (2001) also states that the employees who work hard and don't receive the gratitude they deserve from their bosses are likely to develop burnout. Recognition includes raises and promotions (McKay, 2001).

3.3.3.9 Working with people

According to Maslach (1982) dealing with people can be very demanding, as it requires a great amount of energy. According to Milner, Fisher and Latif (2007) burnout has been identified as being particularly common in work environments where contact with other people constitute a significant part of the job task. People who work with people are expected to remain calm in times of a crisis, to always be understanding and compassionate, and to be patient at all times. This can often lead to burnout of the individual providing a service (Maslach, 1982). Paine (1982) also states that burnout is a problem in organisations that deliver social services. Burnout is even seen as an occupational hazard for various people-oriented professions (Maslach, 1998). According to Ndeti, Pizzo, Maru, et al. (2008) burnout is a distinct work-related syndrome, which occurs more among individuals who work with human recipients of services. Research conducted by Hauptfleisch and Uys (2006) reported that many individuals in a call centre reported having a

specific script that they have to follow, which leads to experiences of stress, pressure and depersonalisation.

3.3.3.10 Unhealthy interpersonal relationships

Sometimes relationships with co-workers, supervisors, and administrators can contribute more to burnout than the contact with clients. This is due to the fact that they are additional sources of emotional stress, and may add to the development of emotional exhaustion and depersonalisation. If colleagues contribute to stress levels, they rob the burnout sufferer of a resource for coping with and preventing burnout (Maslach, 1982).

3.3.4 Symptoms of burnout

Carroll and White (1982) state that burnout symptoms may appear within the person as well as various parts of the individual's environment. Attitude, relationship, emotional, behavioural, and health indicators of burnout will be discussed next.

Smith et al. (2007) states that burnout can eventually threaten employees jobs, relationships, and their health. Maslach (1998) states that suffering from burnout can harm both personal and social functioning. Research conducted in the North West Province of South Africa with 646 primary school educators showed that burnout influences ill-health, therefore mediating the effect of job characteristics on physical and psychological ill-health (Montgomery et al., 2005). Burnout may lead to negative symptoms on the emotional and physical health of individuals (Ndetei et al., 2008).

3.3.4.1 Health Indicators

According to Carroll and White (1982) health symptoms include fatigue and chronic exhaustion, headaches, insomnia, ulcers, sudden weight loss or gain, muscular pain, high blood pressure and even missed menstrual cycles. Scott (2006) stated that a burnout sufferer will feel tired much of the time, or no longer have the energy that he/she previously did, even getting out of bed to face another day of the same gets more difficult, this may be referred to as

'depleted physical energy'. The APA (2007) states that burnout can lead to depression, which has been linked to a variety of other health concerns such as heart disease and stroke, eating disorders, diabetes, and some forms of cancer. Chronic depression also reduces your immunity to other types of illnesses, and can even contribute to premature death. Scott (2006) also states that an individual's immune system would also suffer. People who are suffering from burnout usually get the "message" from their body that something needs to change; this may come in the form of an increased susceptibility to colds, the flu, and other minor illnesses.

3.3.4.2 Behavioural indicators

Behavioural symptoms include increased consumption of caffeine, tobacco, alcohol, over-the-counter and illicit drugs; over-and under eating and hyperactivity (Carroll & White, 1982). Other changes in behaviour typically include withdrawing, avoiding people, sexual incapacity and loss of a sense of humour (Theron, 2005). Burnout sufferers may also make a number of mistakes through carelessness, inattention or lack of focus on a problem at hand (Couper, 2005a).

3.3.4.3 Emotional indicators

Emotional distancing, paranoia, depression, nervous ticks, an inability to concentrate and increased anger and tension can all be seen as emotional symptoms of burnout (Carroll & White, 1982). An individual may feel impatient, moody, inexplicably sad, or just get frustrated more easily than normal. They may feel like they can't deal with life as easily than they once could (Scott, 2006).

3.3.4.4 Relationship indicators

Carroll and White (1982) state that isolation from or over bonding with other staff; responding to clients in a mechanical manner; increased expressions of anger and increased interpersonal problems in marital and other interpersonal relationships away from work are all relationship indicators of burnout. According to Scott (2006) less investment in interpersonal relationships is also

a symptom of burnout. Individuals may withdraw somewhat from interpersonal relationships, feeling like they have less to give, or less interest in having fun, or just less patience with people. For whatever reason, people experiencing burnout can usually see the effects in their relationships.

3.3.4.5 Attitude indicators

Attitude indicators include boredom, cynicism, distrust of peers and supervisors, and a hypercritical attitude (Carroll & White, 1982). An increasingly pessimistic outlook is also present when suffering from burnout. Individuals experiencing burnout, find it harder to get excited about life, harder to expect the best, and harder to 'look on the bright side' in general. Because optimism is a great buffer for stress, those suffering from burnout find it harder to survive testing times than they normally would (Scott, 2006). Couper (2005a) states that burnout sufferers are easily irritated by many people in the work context, and find it difficult to remain patient and to be a good listener.

As stated above, the negative consequences of early life stressors include, for example, an increase in the risk for the development of anger, anxiety, and substance abuse disorders. However, early life stressors have also been linked to the subsequent development of resilience (Lyons & Parker, 2007).

3.4 Personality attributes that contribute to the effective management of job stress and burnout

Research conducted by Flaa, Ekeberg, Kjeldsen and Rostrup (2007) showed that stress reactivity is clearly related to different personality traits. This is concurrent with the findings of McManus, Keeling and Paice (2004) who also found that the way individuals approach stress and burnout is predicted by trait measures of personality.

3.4.1 Self-esteem

Self-esteem, which refers to how individuals feel about themselves, influences individual's reactions to stress, for example workers with low self-esteem are

more affected by stressful events than those with high self esteem (Schultz & Schultz, 1998). According to Scott (2006a) the way an individual feels about themselves can make their life more, or less, stressful. According to Caruthers (2008) several studies suggest that there is a negative relationship between self-esteem and stress. It was also found that self-esteem appears to moderate the effects of stress on individual psychological functioning. Individuals with low self-esteem display more distress from negative events than those with high self-esteem. A person with a high self-esteem may be protected from distress, as they tend to feel less vulnerable and are more able to bounce back from stressful situations (Caruthers, 2008).

3.4.2 Emotional intelligence

According to Robertson (2006) emotional intelligence can be used to manage stress more effectively. Emotional intelligence was initially proposed in 1990 by Salovey and Mayer (1990) and over the past years employees and psychologists have realised that moods, feelings and emotions play a significant role in the workplace. Emotional intelligence refers to the degree of psychological skilfulness with which people deal with events (Louv & Edwards, 1998). Emotional intelligence includes the ability to be aware of ones own emotions as well as other peoples emotions (empathy), being able to manage your emotions and to have a good understanding of the complex relationships that may develop between emotions (Singh, 2006).

3.4.2.1 Emotional stability

Wayne (2005) states that emotional instability has often been referred to as neuroticism. According to Hancock and Szalma (2008) emotional stability influences a number of variables associated with stress, such as depression and anxiety. Individuals with lower scores of emotional stability may prematurely perceive their performance as not good enough to achieve success which will then lead to them abandoning their task, where as individuals with a higher score of emotional stability will put a lot of effort in to regulating their emotions and avoiding stress (Hancock & Szalma, 2008). Research conducted Wierda-Boer, Vermulst and Gerrisby (2009) also showed

that emotionally stable fathers and mothers experience less job stress, child rearing stress, and family-to-work conflict compared to more neurotic counterparts. Research conducted in South Africa by Swanepoel and Oudtshoorn (1988) showed that emotional stability is associated with lower levels of stress.

3.4.3 Assertiveness

Assertiveness is the ability to express one's feelings and affirm one's rights, while respecting the feelings and rights of others. Assertive communication is appropriately direct, open and honest. Individuals who have higher levels of assertiveness are able to greatly reduce the level of interpersonal conflict in their lives, thereby reducing a major source of stress. On the opposite side are passive individuals, who don't know how to effectively communicate their feelings and needs to others. They tend to avoid conflict so much that they let their needs go unmet and keep their feelings locked up inside (Scott, 2006b). Curtis (2007) goes on to state that poor communication is one of the biggest causes of stress both at work and home, and being unable to talk about concerns and frustrations can create stress. Being assertive can improve an individual's communication skills without causing stress to the individual and the people around them.

3.4.4 Resilience

The essence of resilience is the ability to rebound from stress effectively and to attain good functioning despite difficulty (Arehart-Treichel, 2005). Resilience helps individuals who are living in difficult conditions or who experience abuse, loss and other adversities, function with low levels of distress and high levels of confidence and hope, which is adequate for effective social and personal functioning (Grotberg, 2001). More resilient people are able to adapt to adversity without lasting difficulties, while less resilient people have a harder time with stress and life's changes (Scott, 2007).

3.4.5 Extroversion

Louw and Edwards (1998) states that an extrovert is sociable, active, talkative, and fun-loving, while poor communication is one of the biggest causes of stress and being unable to talk about concerns and frustrations can create stress (Curtis, 2007). Research conducted Posella (2004) showed that extroverts cope more actively as the amount of stress in a situation increases. Kovacs (2007) also stated that extroverts are better able to pro-actively deal with stress. Research conducted by Storm and Rothmann (2003) showed that the emotional exhaustion dimension of burnout is significantly (negatively) related to extroversion, and that introversion is associated with susceptibility to experience emotional exhaustion.

3.4.6 Optimism

Derlega, Winstead and Jones (2005) define optimism as a positive set of cognitive beliefs, which are associated with good physical health and mental well-being. Scheier and Carver (1985) hypothesised that optimists are better able to adapt to different forms of life stress, and are therefore better able to cope with stress than pessimists. Optimists do tend to experience less stress than pessimists, as a result of them believing in themselves and their abilities; they expect good things to happen. By believing in themselves, they also take more risks and create more positive events in their lives (Scott, 2008).

3.4.7 Conscientiousness

Pawlik-Kienlen (2007) states that conscientiousness includes being an organised, disciplined, dedicated and loyal individual. Being aimless, negligent, careless and unreliable are characteristics of an individual who have lower levels of conscientiousness (Edwards, 1998). Conscientiousness has been identified by previous research as being one of the personality traits that influences how an individual handles stressful work situations, and is a feasible predictor of burnout (Kim et al., 2000). Research conducted in South Africa by Storm and Rothmann (2003) showed that, among other personality traits, conscientiousness is associated with lower levels of emotional exhaustion and depersonalisation and higher levels of personal

accomplishment. Korotkov (1998) also found that conscientiousness acts as a buffer between the stress to distress relationship.

3.4.8 Openness to experience

An individual who scores is seen as “open to experience” tends to be curious, seeks new and unfamiliar experiences, and is insightful and imaginative (Edwards, 1998; Pawlik-Kienlen, 2007). In research conducted by Korotkov (2008) openness to experience was found to moderate the stress to health behaviour relationship. While research conducted by Williams, Rau, Cribbet and Gunn (2009) found greater levels of stress resilience among individuals with high openness to experience scores, while individuals with lower scores for openness to experience had a greater vulnerability to the adverse effects of stress.

3.4.9 Sense of coherence

One of these personality traits is sense of coherence, as an individual’s sense of coherence may either lessen or worsen his or her reactions towards a stressor. Sense of coherence is a coping resource that is presumed to lighten life stress by affecting the overall quality of a person’s cognitive and emotional assessment of the stressor. Research conducted by Rothmann (2003) found that sense of coherence moderates the effect of job stress and this in turn had a negative effect on exhaustion. It can also be presumed that a strong sense of coherence could also provide protection against burnout. A strong sense of coherence develops over time, provided that generalised resistance resources which allow repeated, consistent experiences are present, and that the outcome can be influenced. Experiences that are characterised by unpredictability, uncontrollability and uncertainty can lead to a weak sense of coherence (Rothmann, 2003).

3.4.10 Affect

Barlow and Durand (2005) define affect as the momentary emotional tone that accompanies what a person does or says. If a person is sad after receiving 100% for a test, their affect is not appropriate to the event. Positive affect

include tendencies such as being joyful, excited, and pleasant, where as negative affect tendencies are fearful, and depression. Positive affect and negative affect, which are aspects of employees' happiness, may lead to burnout (Bosman et al., 2005). Research conducted by Bosman et al. (2005) found that employees who scored low on negative affectivity experienced significantly less burnout levels than employees who had high scores of negative affectivity.

3.4.11 Self-concept

Self-concept is how people see themselves. If a person is not pleased or impressed with himself / herself, and holds a negative view, he / she is likely to suffer from burnout. A poor self concept leads the individual to focus more on their failures than successes, and often becomes overburdened and emotionally empty in helping situations (Maslach, 1982).

3.5 Summary

In this chapter of job stress and burnout, the nature and definition of each concept was first discussed, the various approaches and theories behind each concept were highlighted, followed by the causes and symptoms of job stress and burnout.

As viewed in a large amount of literature, there are a number of factors that play a role in the development of job stress and burnout. According to Sutherland and Cooper (1996) public and private sector organizations are acknowledging the unacceptable costs of stress by providing stress management programmes for employees in an attempt to combat the problems and effects of stress. The purpose of this chapter was to enable employers, managers, trade unions, and employees of any organisation to pro-actively identify sources of stress and burnout, as well as to identify employees suffering from stress and / or burnout.

Although many people consider the concepts “stress” and “personality” as quite separate, they are in fact closely related (Eysenck, 1986). The literature

discussion in the pre-ceeding chapter, as well as this chapter, was intended to provide a deeper understanding of the factors. The empirical findings of the relationship between these factors are discussed in the subsequent chapter.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

The focus in this section will be on the selection of respondents, gathering of the data and statistical methods.

4.2 Selection of the sample

Non-probability sampling and specifically accidental sampling was used in a call centre in the Bloemfontein area. A total of 187 employees in the call centre were involved in the study. The call centre involved is an out-bound, debt collecting call centre, with clients in South Africa and neighbouring states.

4.3 Biographical characteristics of the sample

The distribution of respondents according to their biographical characteristics is reflected in the following diagrams.

4.3.1 Distribution of the respondents according to age

Figure 4.1 provides a graphical representation of the composition of the sample with regard to age.

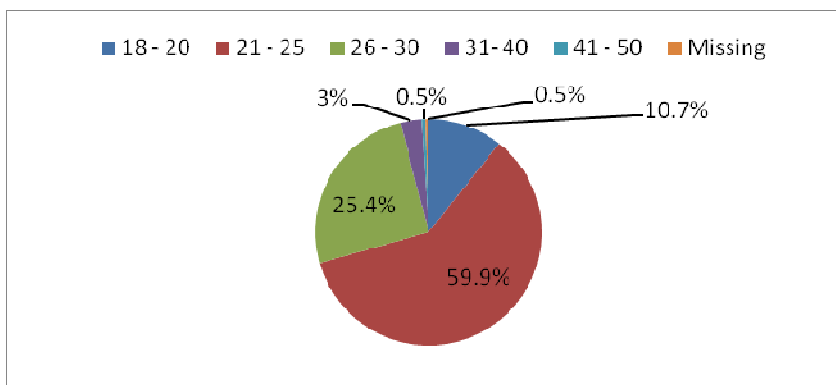


Figure 4.1 Distribution of the respondents according to age

From figure 4.1 it appears that the majority of the respondents (59.9%) are between the ages of 21 and 25, 25.4% of the respondents are between the ages of 26 and 30, while 10.7% are between 18 and 20 years of age. Lastly, only 3% are between the ages of 31 and 40 and 0.5% between 41 and 50 years of age.

4.3.2 Distribution of the respondents according to gender

Figure 4.2 provides a graphical representation of the composition of the sample with regard to gender.

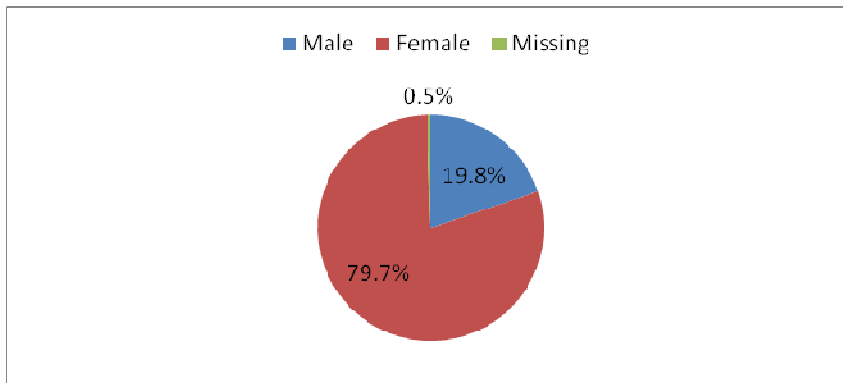


Figure 4.2 Distribution of the respondents according to gender

Figure 4.2 indicates that most of the respondents, namely 79.7% are female, while 19.8% are male.

4.3.3 Distribution of the respondents according to population group

Figure 4.3 provides a graphical representation of the composition of the sample with regard to population group.

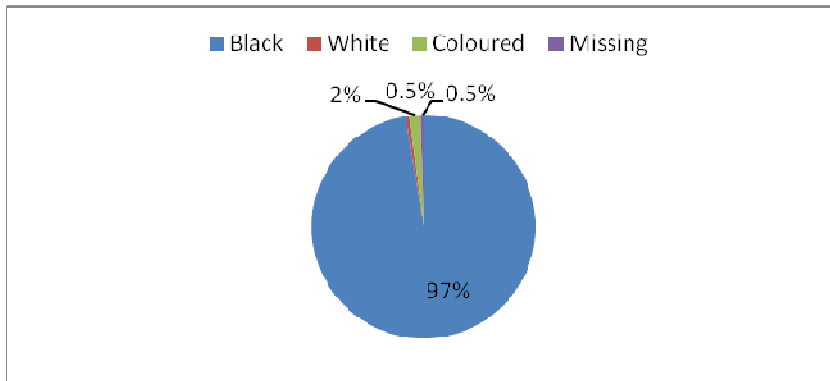


Figure 4.3 Distribution of the respondents according to population group

From figure 4.3 it can be concluded that 97.5% of the respondents are black, 1.5% coloured, and .5% are white with relation to population group.

4.3.4 Distribution of the respondents according to marital status

Figure 4.4 provides a graphical representation of the composition of the sample with regard to marital status.

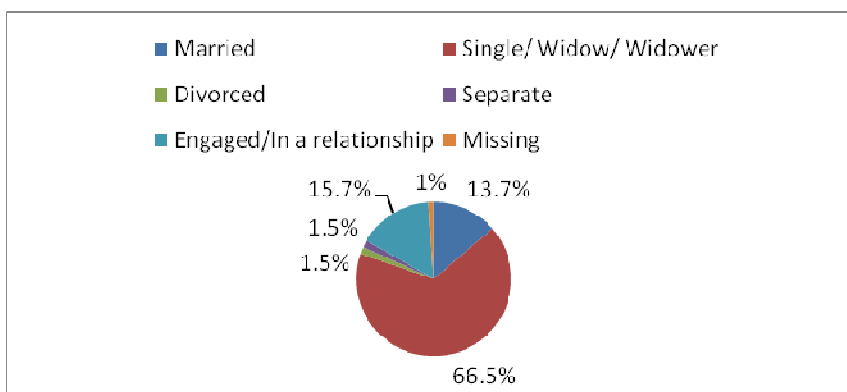


Figure 4.4 Distribution of the respondents according to marital status

From figure 4.4 it appears that 66.5% of the respondents are single/widowed, 15.7% are engaged or in a relationship and 13.7% are married. In the majority, 1.5% of the respondents are divorced, and another 1.5% separated.

4.3.5 Distribution of the respondents according to highest educational qualification

Figure 4.5 provides a graphical representation of the composition of the sample with regard to highest educational qualification.

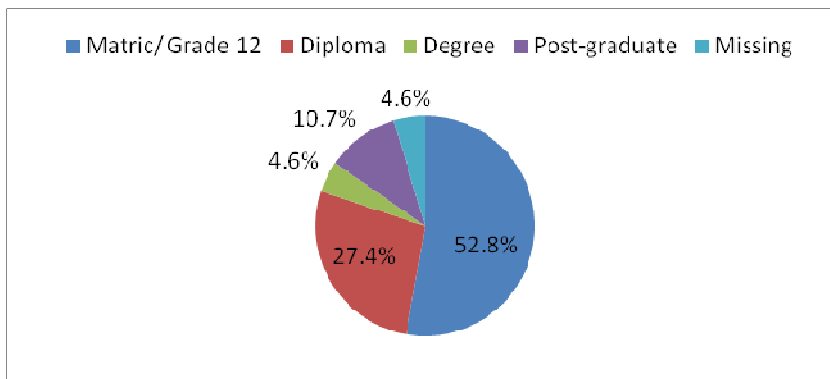


Figure 4.5 Distribution of the respondents according to highest educational qualification

From figure 4.5 it appears that 52.8% of the respondents have a matric or Grade 12 qualification, 27.4% have a diploma, 10.7% have a post graduate qualification, and 4.65 have a degree.

4.3.6 Distribution of the respondents according to home language

Figure 4.6 provides a graphical representation of the composition of the sample with regard to home language.

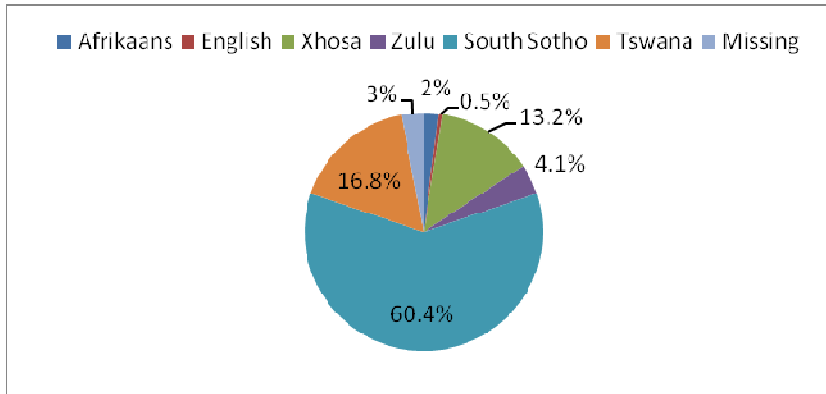


Figure 4.6 Distribution of the respondents according to home language

Figure 4.6 displays that 60.45 of respondents use South Sotho as their home language, 16.8% use Tswana, 13.2% use Xhosa, 4.1% Zulu, 2.0% use Afrikaans, and .5% use English as their home language.

4.3.7 Distribution of the respondents according to years of service

Figure 4.7 provides a graphical representation of the composition of the sample with regard to years of service.

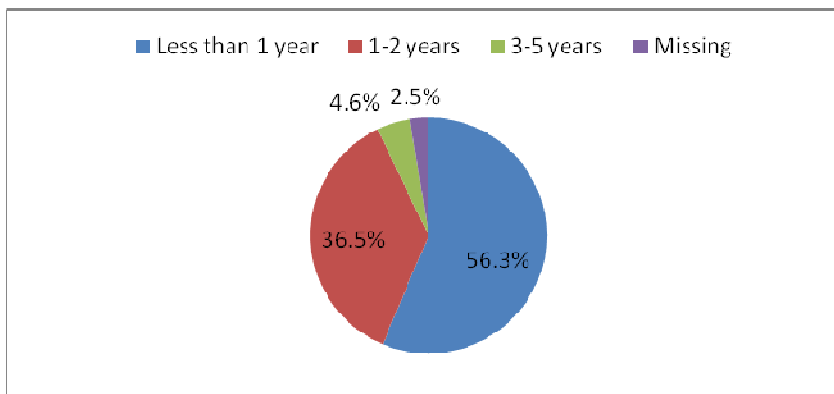


Figure 4.7 Distribution of the respondents according to years of service

From figure 4.7 it appears that 56.3% of the respondents have served for less than one year, 36.5% have served for one to two years, and 4.6% have served for three to five years.

4.4 Process of data collection

Four questionnaires were used in the study, namely The International Personality Item Pool (IPIP); The Resilience Scale; The Maslach Burnout Inventory: Human Services Survey and The Experience of Work and Life Circumstances Questionnaire (WLQ).

The questionnaires were handed out in August 2009. The managers were directly involved with the handing out of the questionnaires on site, and they were collected immediately after the employees had completed them. The managers introduced the individuals that were involved and explained what was expected in Southern Sotho as well as English. The managers involved also explained to all the employees that the information gained from the questionnaires could be useful in deciding what could be done to enable employees to cope more effectively with the challenges of the call centre working environment.

Instructions were then given verbally, as well as in a written format. All employees were told not to write their name, numbers, or any identifying information on the questionnaires, and only mark an "x" in the appropriate spot. The cover letter, which was given to each employee, also stated that only the questions be answered and no additional information is required. When the completed questionnaires were collected, participants were asked to place their questionnaires in a box, further minimizing the identification of questionnaires.

4.5 Measuring instruments

The four measuring instruments that were used will now be discussed, including the nature and composition, reliability, validity and rationale for inclusion for each questionnaire.

4.5.1 The International Personality Item Pool

4.5.1.1 Nature and composition

The IPIP measures all five of the Big Five Personality Factors, namely Extroversion, Neuroticism, Agreeableness, Conscientiousness and Openness to Experience (Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger & Gough, 2006). (See paragraph 2.4.6.2.1 to 2.4.6.2.5 for the definitions of the factors). None of the scales constructed from the International Personality Item Pool (IPIP) have a formal definition. Rather, they are "defined" by the parent scale on which they are based. Since its origin in 1996, the use of items and scales from the IPIP has increased dramatically. Items from the IPIP have been translated from English into more than 25 other languages, and the rate of IPIP-related publications has been increasing rapidly. The IPIP consists of 50 questions, and respondents are asked to rate themselves on a scale with 1 being very inaccurate, and 5 very accurate.

4.5.1.2 Reliability

According to the research conducted by Murray, Judd, Jackson, Fraser, Komiti, Pattison, and Robins (2009) internal reliability is adequate. The coefficient alpha for the IPIP was found to be .84 (Goldberg et al., 2006).

4.5.1.3 Validity

Support for convergent and discriminant validity was found through a study conducted by Lim and Ployhart (2006). Buchanan (2001) also found encouraging preliminary indications of validity.

4.5.1.4 Rationale for inclusion

The International Personality Item Pool is intended as an international effort to develop and continually renew a set of personality scales, all of which remain in the public domain, to be available for both scientific and commercial

purposes (Goldberg et al., 2006). As it is easily available and has proven psychometric properties, the IPIP is well suited for this study.

4.5.2 The Resilience Scale

4.5.2.1 Nature and composition

The purpose of the Resilience Scale is to measure the degree of individual resilience. Wagnild and Young (1993) define resilience as a characteristic that moderates the negative effects of stress, and promotes adjustment to circumstances. Two dimensions of resilience, namely personal competence and acceptance of self and life were identified. Higher levels of Personal competence reflect characteristics such as self reliance, determination, resourcefulness and independence. While “acceptance of self and life” reflects a sense of peace despite adverse conditions, accompanied by adaptability and flexibility (Wagnild & Young, 1993). The Resilience Scale is a 25-item scale, and respondents are asked to rate the degree to which they agree or disagree with each item. All questions are scored on a 7-point scale from 1 being “disagree” to 7 being “agree” with higher scores reflecting higher resilience (Wagnild & Young, 1993).

4.5.2.2 Reliability

Internal consistency as well as test-retest reliability has been supported in various studies. The internal consistency reliability was found to be .89 in various samples, and the coefficient alpha .91, which is considered satisfactory (Wagnild & Young, 1993).

4.5.2.3 Validity

Construct and concurrent validity has also been supported in various studies (Wagnild & Young, 1993). Neill and Dias (2001) examined the Resilience Scale and found the items’ face validity as satisfactory. The Resilience Scale correlated significantly with theoretically relevant constructs, like adaptation to

stress, which included life satisfaction (0.30), morale (0.28) and depression (-0.37) (Wagnild & Young, 1993).

4.5.2.4 Rationale for inclusion

The strength of the Resilience Scale includes its sound psychometric properties and its potential use as a measure of internal resources and positive contributions an individual brings to challenging life events (Wagnild & Young, 1993).

4.5.3 Maslach Burnout Inventory General Survey

4.5.3.1 Nature and composition

For more than a decade the Maslach Burnout Inventory has been one of the leading measures for burnout (Van Rooyen, 2007). Maslach et al. (1996) define burnout as a syndrome that occurs among individuals who work with people in some way or another, and involves emotional exhaustion, depersonalisation, and reduced personal accomplishment. The Maslach Burnout Inventory General Survey is a 22-item instrument that measures the following aspects of professional burnout: emotional exhaustion, which is the reduction of emotional energy or mental fatigue. Cynicism is measured in place of depersonalisation, and involves a distant attitude towards work. Lastly professional efficiency, which is similar to personal accomplishment, emphasises the feeling of having a beneficial impact on people (Maslach, 1996).

4.5.3.2 Reliability

The reliability of the Maslach Burnout Inventory has been proven to be satisfactory in various South African studies (van den Berg et al., 2006). The reliability coefficients were found to be .90 for emotional exhaustion, .79 for depersonalisation, and .71 for personal accomplishment (Maslach et al., 1996).

4.5.3.3 Validity

According to Brenninkmeyer, VanYperen and Buunk (2000) the validity of the Maslach Burnout Inventory is well established. Maslach et al. (1996) also state that convergent and discriminant validity was demonstrated in several ways.

4.5.3.4 Rationale for inclusion

The Maslach Burnout Inventory is the most commonly used instrument to measure burnout (Kim, Shin & Umbreit, 2006). The three main scales measured with the Maslach Burnout Inventory, namely, Emotional Exhaustion, Depersonalisation and Personal Accomplishment, are all necessary to identify burnout in individuals (Van Rooyen, 2007). Reliability and validity have been proven suitable in various South African studies (van den Berg et al., 2006).

4.5.4 The Experience of Work and Life Circumstances Questionnaire

4.5.4.1 Nature and composition

The WLQ can be used to identify persons who experience high levels of stress in an organisational context. Stress has been defined as a negative, energy-demanding emotional experience that typically follows a stimulus that is appraised cognitively and interpreted as threatening, and that leads to a response aimed at ceasing the experience (Van Zyl & Van der Walt, 1991). The WLQ consists of 50 items, and respondents are required to rate how often at work they experience each item, with 1 being “never” and 5 “always”. The results indicate whether the individual is experiencing normal, high, or very high levels of stress (Van Zyl & Van der Walt, 1991; Vogel, 2006).

4.5.4.2 Reliability

Based on various results, the reliability of the WLQ is regarded as satisfactory, with reliability coefficients of the Kuder-Richardson 8 ranging

from .62 to .80, and the test-retest reliability coefficients ranging from .62 to .80 (Van Zyl & Van der Walt, 1991).

4.5.4.3 Validity

The items of the WLQ were developed according to a theoretical model, and it was evaluated by a board of experts, therefore it is safe to state that the questionnaire has face validity. According to various obtained results, the questionnaire also has content validity. Various data also supports construct validity of the WLQ (Van Zyl & Van der Walt, 1991). Significant relationships exist between the WLQ and a number of scales of the 16 Personality Factor Questionnaire, namely factor Q4 (0.25), factor I (0.21), factor C (-0.23) and factor G (-0.25) (Van Zyl & Van der Walt, 1991).

4.5.4.4 Rationale for inclusion

The Experience of Work and Life Circumstances Questionnaire has been developed to meet the need for a stress questionnaire standardized for South African circumstances; therefore it is well suited for this study (Vogel, 2006).

4.6 Statistical methods

Descriptive and Inferential statistics used in this study will now be discussed.

4.6.1 Descriptive statistics

Descriptive statistics describe the data in the study and its basic features. The sample is broken up into simple summaries that can be graphically represented. In basic terms descriptive statistics describes what is or what the data shows (Trochim, 2006). Pie charts, as well as tables have been used to graphically display the information of this study, so that the data can be easily summarised and understood.

4.6.2 Inferential statistics

Trochim (2006) defines inferential statistics as statistics that can be used from the sample data to generalize to the population. For this study inferential statistics were used, but the results cannot be generalized.

Multiple stepwise regression analysis was used to determine the impact of the selected personality attributes as potential predictors of job stress and burnout. According to Ngobeni (2003) multiple regression analysis has a tolerance to enter several independent variables into the same type of regression equation and predict a single dependent variable. A separate regression coefficient is then calculated for each independent variable that describes its individual relationship with the dependent variable.

CHAPTER 5

RESULTS AND DISCUSSION OF RESULTS

5.1 Introduction

The results section provides an explanation of what was found in the study, followed by a conclusion with respect to the potential practical implications of the study.

5.2 Levels of job stress and burnout of staff members of the call centre

Table 5.1 Arithmetic means, standard deviation, skewness and kurtosis of staff members of the call centre regarding the respective variables

	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic
Job stress	92.53	27.81	0.73	0.01
Emotional exhaustion	24.98	7.71	-0.11	0.34
Depersonalisation	26.16	8.02	-0.31	0.07
Personal accomplishment	29.70	7.10	-0.19	1.12
Extroversion	28.52	8.89	-0.50	0.04
Agreeableness	34.53	8.74	-1.15	0.64
Conscientiousness	33.48	9.37	-0.93	0.21
Emotional stability	27.92	8.22	-0.04	-0.30
Openness to experience	32.02	8.99	-1.23	0.67
Resilience	145.52	23.03	-2.01	7.24
Personal competence	101.24	16.11	-1.87	5.68
Acceptance of self and life	44.52	8.14	-1.17	3.10
Valid N (listwise)	187			

From table 5.1 it can be seen that the mean emotional exhaustion of staff members of the call centre is 24.98, which indicates an average experience of burnout. The mean of depersonalisation of staff members of the call centre is 26.16 which indicates a high experience of burnout. Lastly the personal accomplishment of staff members of the call centre is 29.70 which indicates lower levels of personal accomplishment and a high experience of burnout. The mean of 92.53 for job stress for staff members of the call centre shows that the current level of job stress experienced is high.

5.3. The prediction of job stress of staff members of the call centre by means of personality traits and resilience

Table 5.2 The prediction of job stress of staff members of the call centre by means of personality traits and resilience

Step	Variable	Standard Error of the Estimate	Multiple R	R Square	F-Value	p-Value
1	Emotional stability	27.47	0.18	0.03	6.13	.01*
2	Openness to experience	26.78	0.29	0.08	8.76	.00**

* p<0.05

**p<0.01

It is evident from table 5.2 that the only valid predictors of job stress of staff members of the call centre are emotional stability and openness to experience. Emotional stability predicts 3% of the variance of job stress. Openness to experience adds an additional 5% of the variance job stress. Conscientiousness, extroversion, agreeableness and resilience weren't found to be valid predictors of job stress

5.4 The prediction of burnout of staff members of the call centre by means of personality traits and resilience

5.4.1 The prediction of emotional exhaustion

Table 5.3 The prediction of emotional exhaustion of staff members of the call centre by means of personality traits and resilience

Step	Variable	Standard Error of the Estimate	Multiple R	R Square	F-Value	p-Value
1	Conscientiousness	7.45	0.27	0.08	15.56	.00*

*p<0.01

It is evident from table 5.3 that conscientiousness is a valid predictor of emotional exhaustion, as it predicts 8% of the emotional exhaustion dimension of burnout. According to the results, resilience is not a valid predictor of emotional exhaustion.

5.4.2 The prediction of depersonalisation

Table 5.4 The prediction of depersonalisation of staff members of the call centre by means of personality traits

Step	Variable	Standard Error of the Estimate	Multiple R	R Square	F-Value	p-Value
1	Conscientiousness	7.53	0.35	0.13	27.28	.00*

*p<0.01

Conscientiousness is also a valid predictor of depersonalisation, as it predicts 13% of the variance of depersonalisation.

Table 5.5 The prediction of depersonalisation of staff members of the call centre by means of resilience

Step	Variable	Standard Error of the Estimate	Multiple R	R Square	F-Value	p-Value
1	Acceptance of self and life	7.72	0.27	0.08	15.07	.00*

*p<0.01

A dimension of resilience, namely acceptance of self and life, predicts 8% of the depersonalisation dimension of burnout.

5.4.3 The prediction of personal accomplishment

Table 5.6 The prediction of personal accomplishment of staff members of the call centre by means of personality traits

Step	Variable	Standard Error of the Estimate	Multiple R	R Square	F-Value	p-Value
1	Conscientiousness	6.96	0.22	0.05	9.31	.003*
2	Agreeableness	6.89	0.26	0.07	7.13	.001*

*p<0.01

Conscientiousness and agreeableness are valid predictors of personal accomplishment, as conscientiousness predicts 5% and agreeableness adds another 2% of the variance of personal accomplishment.

Table 5.7 The prediction of personal accomplishment of staff members of the call centre by means of resilience

Step	Variable	Standard Error of the Estimate	Multiple R	R Square	F-Value	p-Value
1	Personal Competence	6.84	0.2	0.04	7.87	.006*

*p<0.01

A dimension of resilience, personal competence, is a valid predictor of personal accomplishment, as it predicts 4% of the personal accomplishment dimension of the variable burnout.

5.5 Discussion of results

5.5.1 Levels of job stress and burnout

While the level of burnout and job stress of staff members in the call centre is high, it is not very high as Gold and Roth (1993) have stated that research has consistently shown that people in the helping profession have significantly higher levels of stress and burnout and call centre employees are at risk for experiencing high levels of stress (DeRuyter et al., 2001; Taylor et al., 2003).

This may be explained by the fact that the employees of this specific call centre do not work long hours or permanent night shifts, which was found to contribute to work stress by Seshu (2003). South African call centres are also seen to have good command of the English language while being culturally diverse (Ngobeni, 2009). This can allow the staff of the call centre to feel better equipped and to deal with clients of different cultures more effectively. Excessive monitoring in a call centre can be a source of stress, therefore monitoring of this call centre may not be excessive and rigid (Miller & Fisher, 2005; Taylor et al., 2003). Staff of the call centre may also be well trained in what is expected from them, which enables them to manage their stress more effectively.

5.5.2 The prediction of job stress of staff members of a call centre by means of personality traits and resilience

The results reject the null hypothesis by showing that there is a linear relationship between the scores on personality traits and job stress, as openness to experience and emotional stability are valid predictors of job stress. These results were consistent with part of the literature, as research conducted by Hancock and Szalma (2008) showed that individuals with lower scores of emotional stability may prematurely perceive their performance as not good enough to achieve success which will then lead to them abandoning their task, where as individuals with a higher score of emotional stability will put a lot of effort in to regulating their emotions and avoid stress. Research conducted in South Africa by Swanepoel and Oudtshoorn (1988) also showed that emotional stability is associated with lower levels of stress. More recently,

research conducted by Wierda-Boer, Vermulst and Gerrisby (2009) showed that emotionally stable fathers and mothers experience less job stress, and family-to-work conflict compared to more neurotic counterparts.

In research conducted by Korotkov (2008) openness to experience was found to moderate the stress to health behaviour relationship. While research conducted by Williams, Rau, Cribbet and Gunn (2009) found greater levels of stress resilience among individuals with high openness to experience scores, while individuals with lower scores for openness to experience had a greater vulnerability to the adverse effects of stress.

However, further research should be done to determine why personality traits only explain 8% of the variance of job stress while the literature indicates the contrary. Research conducted by Storm and Rothmann (2003) showed that extroversion and conscientiousness are also associated with positively reinterpreting stressful situations and acceptance of stressors. Various studies have also shown that resilience acts as a buffer against stress development (Arehart-Treichel, 2005; Griffith, 2007). Kim, Shin and Umbreit (2000) found that personality traits could render an individual more susceptible to the effects of stress; these include extraversion, conscientiousness, and neuroticism. Research conducted in South Africa by Swanepoel and Oudtshoorn (1988) also found that conscientiousness is associated with lower levels of stress. Ghazinour, Richter, Emami and Eisemann (2003) agree with this, stating that personality traits such as introversion and neuroticism have a significant impact on the development of job stress (Jaffe–Gill et al., 2007).

5.5.3 The prediction of burnout of staff members of a call centre by means of personality traits and resilience

5.5.3.1 The prediction of emotional exhaustion

The results showed that conscientiousness is a valid predictor of emotional exhaustion, thereby rejecting the null hypothesis and proving that there is a linear relationship between the scores on personality traits and burnout. This result is in line with the research done in South Africa by Storm and

Rothmann (2003) which showed that conscientiousness is associated with lower levels of emotional exhaustion. Kim et al. (2000) also found that conscientiousness is a feasible predictor of burnout. Conscientiousness has been identified by previous research as being one of the personality traits that influences how an individual handles stressful work situations, and is a valid predictor of burnout (Kim et al., 2000). Research conducted by Storm and Rothmann (2003) indicated that conscientiousness is associated with constructive coping strategies and positively reinterpreting stressful situations and acceptance of stressors.

However, research conducted by Bakker et al. (2006) found that emotional exhaustion is predicted by emotional stability. Jensen (2008) also found that neuroticism was a significant predictor of emotional exhaustion, while Zeng and Shi (2007) found that agreeableness and emotional stability were effective predictors of emotional exhaustion. Research conducted by Carvalho et al. (2006) also showed that individuals with higher levels of resilience appear to be less emotionally exhausted than individuals with lower levels of resilience.

5.5.3.2 The prediction of depersonalisation

Conscientiousness and acceptance of self and life, a dimension of resilience were valid predictors of depersonalisation. The null hypothesis is therefore rejected. This is in line with the research done in South Africa by Storm and Rothmann (2003) which showed that conscientiousness is associated with lower levels of depersonalisation. Korotkov (1998) also found that conscientiousness acts as a buffer between the stress to distress relationship. However, research conducted by Bakker et al. (2006) found that depersonalisation is predicted by emotional stability, extraversion, and openness to experience.

A dimension of resilience, namely acceptance of self and life, predicts 8% of the depersonalisation dimension of burnout. Scott (2007) found that individuals who score high on resilience are better able to adapt to adversity without lasting difficulties, while less resilient people have a harder time with stress and life's changes. The individual characteristic of resilience has also

been frequently associated with positive emotions, especially when the individual is experiencing a taxing event (Philippe, Lecours & Beaulieu-Pelletier, 2009).

5.5.3.3 The prediction of personal accomplishment

Conscientiousness, agreeableness, and personal competence, a dimension of resilience, were valid predictors of depersonalisation. The results reject the null hypothesis and show that there is a linear relationship between the scores on personality traits and resilience and burnout. This is in line with the research done in South Africa by Storm and Rothmann (2003) which showed that conscientiousness is associated with higher levels of personal accomplishment. However, research conducted by Bakker et al. (2006) found that personal accomplishment is predicted by extroversion and emotional stability.

A dimension of resilience, personal competence, is a valid predictor of personal accomplishment, as it predicts 4% of the personal accomplishment dimension of the variable burnout. Scott (2007) found that individuals who score high on resilience are better able to adapt to adversity without lasting difficulties, while less resilient people have a harder time with stress and life's changes.

5.6 Conclusions

General conclusions regarding the literature review, research methodology, and results will follow. The value of the study, the limitations, and recommendations for future studies will also be highlighted.

5.6.1 Literature study

Although a large amount of literature on job stress and personality was found, there was a limited amount of research conducted in South Africa. Information regarding call centres was also limited largely to overseas call centres. However there was sufficient amount of literature available regarding the relationship between the big five personality traits and stress. Resilience is a

fairly young term in the industrial world, so literature covering this topic with regard to burnout was not easily found.

5.6.2 Research methodology

Non-probability sampling and specifically accidental sampling was used; therefore the results cannot be generalised. One call centre in Bloemfontein was used, and this further contributes to the results being less likely to be generalised. The respondents were mainly black, female, single, South Sotho, between 21 and 25 years of age, acquired a grade 12 qualification and have served for less than one year. The fact that the respondents are relatively young with limited relevant job experience might contribute to their high level of job stress.

Of the four questionnaires used, only one was developed and adapted to the South African context. It would be advisable to conduct a factor analysis to determine the factor structures of the respective questionnaires in the South African context, but due to the limited number of respondents, that could not have been done.

5.6.3 Results

A linear relationship was found between job stress and the big five factors, namely emotional stability and openness to experience. Conscientiousness was also found to be a valid predictor of the emotional exhaustion and depersonalisation dimensions of burnout. Resilience, or more specifically acceptance of self and life, was also found to be a valid predictor of depersonalisation. Conscientiousness, agreeableness, and resilience (the personal competence dimension) were found to be valid predictors of the personal accomplishment dimension of burnout. Although the results were supported by previous studies, majority of the results were not consistent with previous findings. The results discussed above indicate that there is a linear relationship between personality traits and job stress; personality traits and burnout; and resilience and burnout of employees of a call centre.

The results of this study can be used for future selection and training of staff of the call centre. Future selection and training processes can centre around the identification and enhancement of personality variables that will allow employees to effectively manage job stress and burnout.

5.6.4 Value of the study

As more and more countries are making use of South Africa as an outsourcing destination for call centres, call centres are continuing to grow at a rapid pace in South Africa. It is therefore important to be aware of the level of job stress and burnout in call centres, and how this can be reduced. This study identified personality attributes as well as resilience that contributes to the effective management of job stress and burnout, which can lead to a better match being made between personality and the working environment of a call centre, thereby reducing the levels of job stress and burnout and the consequent negative outcomes such as absenteeism and a higher turnover rate. This will also allow for more jobs to be created and for poverty mitigation in South Africa.

5.6.5 Limitations of the study

This study only focused on one call centre in Bloemfontein, South Africa. Therefore the results cannot be generalised to the larger population.

It is advisable that the factor structures of the questionnaires regarding The International Personality Item Pool and the Resilience Scale should have been determined for the South African context. However this could not be done due to the numbers of respondents that participated in this study.

6. Recommendations

Based on the above mentioned limitations, the following recommendations can be made.

- A stratified random sample from various call centres around South Africa, which is more representative and can be generalised, should be used in future studies.
- Locally developed questionnaires, with South African norms, should be developed.
- A broader range of variables, apart from personality traits and resilience, could be covered in future studies. Future studies can include, for example, locus of control, culture, or personality type (A, B or C), that can help prevent job stress and burnout.
- Due to the high levels of job stress and burnout in call centres, future studies could focus on how call centre organisations can reduce the level of job stress and burnout of current employees and how to equip staff members to manage their job stress more effectively.

Bibliography

Al-Naser, F., & Sandman, M.M.A. (2000). Evaluating Resiliency Patterns using the ER89: A Case Study from Kuwait. *Social Behavior and Personality*, 28(5), 505-514.

American Psychological Association. (2007). *Coping with Job Stress*. Retrieved July 02, 2008, from <http://psychcentral.com/lib/2007/coping-with-job-stress>

Arehart-Treichel, J. (2005). Resilience Shown in Youth Protects Against Adult Stress. *Psychiatry News*, 40(17), 14. Retrieved March 14, 2008, from <http://pn.psychiatryonline.org/cgi/content/full/40/17/14>

Avis, P., Pauw, A., & van der Spuy, I. (1999). *Psychological Perspectives*. South Africa: CTP Book Printers.

Bakker, A.B., Van Der Zee, K.I., Lewig, K.A., & Dollard, M.F. (2006). The Relationship Between the Big Five Personality Factors and Burnout: A Study among Volunteer Counsellors. *The Journal of social psychology*, 146(1), 31-50. Abstract retrieved November 25, 2009, from <http://cat.inist.fr/?aModele=afficheN&cpsidt=17481760>

Barlow, D.H., & Durand, V.M. (2005). *Abnormal Psychology: An Integrative Approach* (4th ed.). United States of America: Wadsworth.

Berg, A. (2004). *Labour Inspectors Find Work Environment Problems at Call Centres*. Retrieved August 25, 2008, from <http://www.eurofound.europa.eu/eiro/2004/09/feature/se0409103f.htm>

Bernstein, P.A., & Nash, P.W. (2005). *Essentials of Psychology* (3rd ed.). U.S.A.: Houghton Mifflin Company.

Bland, L. C., Sowa, C. J., & Callahan, C. M. (1994). An Overview of Resilience in Gifted Children. *Roepers Review*, 17(2), 77-80. Retrieved March 12, 2008, from <http://www.ebscohost.com>

Boeree, C.G. (2007). *Personality Theories: An Introduction*. Retrieved October 16, 2008, from <http://webspace.ship.edu/cgboer/personalityintroduction.html>

Boeree, C.G. (2007a). *Albert Bandura*. Retrieved April 19, 2009, from <http://webspace.ship.edu/cgboer/bandura.html>

Borgen W.A., Amundson, N.E., & Reuter, J. (2004). Using Portfolios to Enhance Career Resilience. *Journal of Employment Counselling*, 41, 50-59.

Bosman, J., Rothmann, S., & Buitendach, J.H. (2005). Job Insecurity, Burnout and Work Engagement: The Impact of Positive and Negative Affectivity. *South African Journal of Industrial Psychology*, 31(4), 48-56.

Bourne, L.E., & Yaroush, L.A. (2003). *Stress and Cognition: A Cognitive Psychological Perspective*. Retrieved May 2, 2009, from http://humansystems.arc.nasa.gov/eas/download/non_EAS/Stress_and_Cognition.pdf

Brady, S. (2006). *Pain free for life*. Retrieved June 9, 2009, from <http://www.bradyinstitute.com/aboutBook/painProne.asp>

Brenninkmeyer, V., Van Yperen, N.W., & Buunk, B.P. (2000). Burnout and Depression are not Identical Twins: is Decline of Superiority a Distinguishing Feature? *Personality and Individual Differences*, 30(5), 873-880. doi:10.1016/S0191-8869(00)00079-9

Bridges, W. (1994). *Job Shift: How to Prosper in a Workplace without Jobs*. Massachusetts: Perseus Books.

Brooks, R. (2001). *Self-worth, Resilience and Hope: The Search for Islands of Competence*. Retrieved June 23, 2009, from http://www.cdl.org/resource-library/articles/self_worth.php

Brotheridge, C.M., & Grandey, A.A. (2002). Emotional Labor and Burnout: Comparing Two Perspectives of "People Work". *Journal of Vocational Behavior*, 60, 17-39.

Brown, B.L. (1996). Career Resilience. *Eric Digest* No. 178. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, the Ohio State University (ED 402 474).

Buchanan, T. (2001). *Online Implementation of an IPIP Five Factor Personality Inventory*. Retrieved December 02, 2009, from <http://users.wmin.ac.uk/~buchant/wwwffi/introduction.html#Buchanan,%20T.,%20Goldberg,%20L.%20R.,%20&%20Johnson,%20J.%20A.>

Campbell-Sills, L., Cohan, S.L., & Stein, M.B. (2006). Relationship of Resilience to Personality, Coping and Psychiatric Symptoms in Young Adults. *Behaviour Research and Therapy*, 44(4), 585-99. Epub 2005. Retrieved March 12, 2008, from http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V5W

Carroll, J.F.X., & White, W.L. (1982). Theory Building: Integrating Individual and Environmental Factors within an Ecological Framework. pp 41-60. In W.S. Paine (Ed.), *Job Stress and Burnout: Research, Theory, and Intervention Perspectives* United States of America: SAGE publications Ltd.

Caruthers, N.D. (2008). *Stress and Self-esteem*. Manuscript retrieved December 12, 2008, from <http://clearinghouse.missouriwestern.edu/manuscripts/25.php>

Carvalho ,M.V.A., Calvo, F.B., Martín, H.L., Campos, R.F., & Castillo, C.I. (2006). Resilience and the Burnout-Engagement Model in Formal Caregivers of the Elderly. *Psicothema*, 18(4), 791-796. Retrieved November 23, 2009, from <http://www.ncbi.nlm.nih.gov/pubmed/17296119>

Cattell, R.B. (1946). *Description and Measurement of Personality*. New York: World Book Company.

Cattell, R.B. (1952). *Factor Analysis: An Introduction and Manual for the Psychologist and Social Scientist*. New York: Harper & Brothers, Publishers.

Cattell, R.B. (1957). *Personality and Motivation Structure Measurement*. United States of America: World Book Company.

Cleary, S., & Malleret, T. (2006). *Resilience to Risk; Business Success in Turbulent Times*. Cape Town: Human & Rousseau.

Cohler, B.J. (1993). Describing Lives: Gordon Allport and the "Science" of Personality, pp.131-146. In K.H. Craik, R. Hogan, & R.N. Wolfe (Eds). *Fifty Years of Personality Psychology*. New York: Plenum Press.

Collingwood, J. (2006). *Your Sense of Coherence*. Retrieved June 25, 2009, from <http://psychcentral.com/lib/2006/your-sense-of-coherence/>

Connor, K.M., & Davidson, J.R.T. (2003). Development of a New Resilience Scale: The Connor-Davidson Resilience Scale. *Psychiatry Res*, 152(2-3), 293–297. Retrieved March 13, 2008, from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2041449/>

Cooper, C.L. (1984). Stress. pp. 239-258. In C.L. Cooper & P. Makin (Eds), *Psychology for Managers* (2nd ed). Great Britain: The British Psychological Society and Macmillan Publishers Limited.

Cooper, C.L. (Ed.). (2000). *Theories of Organizational Stress*. United States: Oxford University Press.

Cooper, C.L., & Makin, P. (1984). Personality and Individual Differences, pp. 58-93. In C.L. Cooper & P. Makin (Eds), *Psychology for Managers* (2nd ed). Great Britain: The British Psychological Society and Macmillan Publishers Limited.

Costa, P.T., McCrae, R.R. (1992). *NEO Five-Factor Inventory*. Retrieved March 14, 2008, from <http://www.sigmaassessmentsystems.com/assessments/neoffi.asp>

Costa, P.T., & Widiger, T.A. (1994). Introduction: Personality disorders and the Five-Factor Model of Personality. pp1-10. In P.T. Costa & T.A. Widiger. *Personality disorders and the Five-Factor Model of Personality*. Washington: American Psychological Association.

Couper, I.D. (2005). Facing and Dealing With Burnout: Editorial. *South African Family Practice*, 47(2), 3.

Couper, I.D. (2005a). Approaching Burnout. *South African Family Practice*, 47(2), 5-8.

Coutu, D.L. (2003). How Resilience Works. pp. 1-18. In *Harvard Business Review on Building Personal and Organizational Resilience*. United States of America: Harvard Business School Publishing Corporation.

Curtis, J. (2007). *Stress management: Reducing stress by being assertive*. Retrieved August 07, 2009, from <http://www.webmd.com/balance/stress-management/stress-management-reducing-stress-by-being-assertive>

Da Costa, L.C., & Mash, B. (2008). A Description of the Psychosocial Factors Associated with Depression and Anxiety in South African Adolescents Attending Urban Private Practices in Johannesburg. *South African Family Practice*, 50(5), 51.

Darley, J.M., Glucksberg, S., & Kinchla, R.A. (1999). *Psychology* (3rd ed.). Englewood Cliff: Prentice Hall, Inc.

Demerouti, E., Bakker, A.B., Nachreiner, F., & Schaufeli, W.B. (2001). The Job Demands-Resources Model of Burnout. *Journal of Applied Psychology*, 86(3), 499-512.

De Raad, B. (2000). *The Big Five Personality Factors: A Psycholexical Approach to Personality*. Germany: Hogrefe & Huber Publishers.

De Ruyter, K., Wetzels, M., & Feinberg, R. (2001). Role Stress in Call Centres: Its Effects on Employee Performance and Satisfaction. *Journal of Interactive Marketing*, 15(2), 23-35. Retrieved May 09, 2008, from www.emeraldinsight.com/Insight/html/Output/Published/EmeraldFullTextArticle/Pdf/0320200403_ref.html

der Kinderen, S., & Greeff, A.P. (2003). Resilience among Families Where a Parent Accepted a Voluntary Teacher's Retrenchment Package. *South African Journal of Psychology*, 33(2), 86-94.

Derlega, V.J., Winstead, B.A., & Jones, W.H. (2005). *Personality: Contemporary Theory and Research* (3rd ed). Canada: Thomson Wadsworth.

Dewe, P. (1997). The Transactional Model of Stress: Some Implications for Stress Management Programs. *Asia Pacific Journal of Human Resources*, 35(2), 41-5.
DOI: 10.1177/103841119703500205

Donelson, E. (1973). *Personality – a Scientific Approach*. Michigan: Meredith Corporation.

Du Toit, I. (2007). The Call of the Call Centre. Cape Argus, 17. Retrieved August 25, 2008, from http://www.iojjobs.co.za/article_view.php?fArticleId=3632363

Earvolino-Ramirez, M. (2007). Resilience: A Concept Analysis. *Nursing Forum*, 42(2), 73-82.

Edwards, D. (1998). Personality. Pp.541-603. In D.A. Louw, & D.J.A. Edwards (Eds.). *Psychology: an Introduction for Students in Southern Africa* (2nd ed.). Rivonia: Heinemann.

Edwards, D. (1998a). Motivation and Emotion. pp.421-475. In D.A. Louw, & D.J.A. Edwards (Eds.). *Psychology: an Introduction for Students in Southern Africa* (2nd ed.). Rivonia: Heinemann.

Fehring, H.M. (2004). *Contributions and Limitations of Cattell's Sixteen Personality Factor Model*. Retrieved April 16, 2009, from <http://www.personalityresearch.org/papers/fehriinger.html>

Fergus, S., & Zimmerman, M.A. (2005). Adolescent Resilience: A Framework for Understanding Healthy Development in the Face of Risk. *Annual Review in Public Health*, 26, 399–419.

Flaa, A., Ekeberg, O., Kjeldsen, S.E., & Rostrup, M. (2007). Personality may Influence Reactivity to Stress. *BioPsychoSocial Medicine*, 1(5). Retrieved June 9, 2009, from doi:10.1186/1751-0759-1-5

Foxcroft, C., & Roodt, G. (2005). *An Introduction to Psychological Assessment in the South African Context (2nd ed.)*. Cape Town: Oxford University Press.

French, J.R.P., Caplan, R.D., & Harrison, R. (1982). *The Mechanisms of Job Stress and Strain*. United States of America: John Wiley & Sons Ltd.

Gaede, B. (2005). Burnout-A Personal Journey. *South African Family Practice*, 47(4), 5-6.

Ghazinour, M., Richter, J., Emami, H., & Eisemann, M. (2003). Do Parental Rearing and Personality Characteristics have a Buffering Effect against Psychopathological Manifestations among Iranian Refugees in Sweden? *Nord J Psychiatry*, 57(6), 419-428.

Glassman, W.E. (2000). *Approaches to Psychology*. (3rd ed.) London: Open University Press.

Gold, Y., & Roth, R.A. (1993). *Teachers Managing Stress and Preventing Burnout: The Professional Health Solution*. Great Britain: The Falmer Press.

Goldberg, L.R. (1995). What the Hell Took so Long? pp. 29-44. In P.E. Shrouf & S.T. Fiske (Eds.). *Personality, Research, Methods and Theory*. New Jersey: Lawrence Erlbaum Associates, Publishers.

Goldberg, L.R., Johnson, J.A., Eber, H.W., Hogan, R., Ashton, M.C., Cloninger, C.R., & Gough, H.G. (2006). *The International Personality Item Pool and the Future of Public-domain Personality Measures*. Retrieved November 06, 2008, from <http://www.personal.psu.edu/faculty/j/5/j5j/papers/IPIP2006.pdf>

- Gopalan, N., & Satoris, S. (2008). *Moderators in the Relationship Between Occupational Emotional Labor and Burnout*. Retrieved December 01, 2008, from <http://www.cdc.gov/niosh/nora/symp08/posters/004.html>
- Greenhaus, J.H., & Callanan, G.A. (1994). *Career Management*. New York: Dryden.
- Griffith, D. (2007). *A New Year's Resolution for Your Emotional Health*. Retrieved March 22, 2007, from www.healthatoz.com
- Grotberg, E.H. (2001). Resilience Programs for Children in Disaster. *Ambulatory Child Health*, 7, 75-83.
- Grotberg, E.H. (2003). What is Resilience? How Do You Promote it? How Do You Use It? Pp 1-29. In E.H. Grotberg (Ed) *Resilience for Today: Gaining Strength from Adversity*. United States of America: Greenwood Publishing Group, Inc.
- Hall, C.S., & Lindzey, G. (1967). *Theories of Personality*. New York: John Wiley & Sons, Inc.
- Hall, J., Zautra, A., Aiken, L., Castro, F., Davis, M., Lemery, K., Leuken, L., Reich, J., Van Puymbroeck, C. (2003). Resilience: Health in a New Key. *Arizona Health Futures*, Fall. Retrieved May 13, 2009, from http://www.slhi.org/publications/issue_briefs/pdfs/ib-03fall.pdf
- Halonen, J.S., & Santrock, J.W. (1997). *Human Adjustment* (2nd Ed). United States of America: Brown & Benchmark Publishers.
- Hancock, P.A., & Szalma, J.L. (2008). *Performance Under Stress*. Retrieved August 07, 2009, from http://books.google.co.uk/books?id=w19X0p5g6TYC&pg=PA340&lpg=PA340&dq=emotional+stability+and+stress&source=bl&ots=lxnjsFtjT&sig=J-fQwevglugzwAohpYVK4C-eKHA&hl=en&ei=rBF4SvfJG6WsjAflgaW9Bw&sa=X&oi=book_result&ct=result&resnum=4#v=onepage&q=&f=false

Harland, L., Harrison, W., Jones, J.R., & Reiter-Palmon, R. (2005). Leadership Behaviors and Subordinate Resilience. *Journal of Leadership and Organizational Studies*, 11(2), 2-14.

Hauptfleischs, S., & Uys, J.S. (2006). The Experience of Work in a Call Centre Environment. *South African Journal of Industrial Psychology*, 32(2), 23-30.

Hjemdal, O., Friborg, O., Stiles, T.C., Rosenvinge, J.H., & Martinussen, M. (2006a). Resilience Predicting Psychiatric Symptoms: A Prospective Study of Protective Factors and their Role in Adjustment to Stressful Life Events. *Clinical Psychology and Psychotherapy*, 13, 194–201.

Hjemdal, O., Friborg, O., Stiles, T.C., Martinussen, M., & Rosenvinge, J.H. (2006). A New Scale for Adolescent Resilience: Grasping the Central Protective Resources behind Healthy Development. *Measurement and Evaluation in Counseling and Development*, 39, 84-96.

Hjemdal, O., Friborg, O., Stiles, T.C., Rosenvinge, J.H., & Martinussen, M. (2006a). Resilience Predicting Psychiatric Symptoms: A Prospective Study of Protective Factors and their Role in Adjustment to Stressful Life Events. *Clinical Psychology and Psychotherapy*, 13(3), 194 – 201. Abstract retrieved May 13, 2009, from <http://www3.interscience.wiley.com/journal/112633187/abstract?CRETRY=1&SRETRY=0>

Hoffmann, D.L. (1998). *Stress: What is it and what causes it?* Retrieved September 22, 2008, from <http://www.healthy.net/scr/article.asp?lk=P598&ld=1609>

Hoge, E.A., Austin, E.D., & Pollack, M.H. (2007). Resilience: Research Evidence and Conceptual Considerations for Posttraumatic Stress Disorder. *Depression and Anxiety*, 24, 139–152.

Hopson, B. (1984). Transition: Understanding and Managing Personal Change. pp.133-156. In C.L. Cooper & P. Makin (Eds), *Psychology for Managers* (2nd ed). Great Britain: The British Psychological Society and Macmillan Publishers Limited.

Howard, S., Dryden, J., & Johnson, B. (1999). Childhood Resilience: Review and Critique of Literature. *Oxford Review of Education*, 25(3), 307-323.

Hunt, C., & West, L. (2006). Learning in a Border Country: Using Psychodynamic Ideas in Teaching and Research. *Studies in the Education of Adults*, 38(2), 160-177.

International Labour Organization. (2001). *Is Workplace Stress always Negative?* Retrieved August 12, 2008, from <http://www.ilo.org/public/english/protection/safework/stress/whatis.htm>

Jackson, D., Firtko, A., & Edenborough, M. (2007). Personal Resilience as a Strategy for Surviving and Thriving in the Face of Workplace Adversity: A Literature Review. *Journal of Advanced Nursing*, 60(1), 1–9.

Jaffe–Gill, E., Smith, M., Larson, H., & Segal, J. (2007). *Understanding Stress: Signs, Symptoms, Causes, and Effects*. Retrieved May 09, 2008, from http://www.helpguide.org/mental/stress_signs.htm

Jaffe-Gill, E., Segal, R., & Jaffe, J. (2008). *Job Stress Management: Stress Causes & Effects; Tips for Workplace Stress Reduction*. Retrieved April 22, 2008, from http://www.helpguide.org/mental/work_stress_management.htm#workplace

Jensen, S.A. (2008). Relationship Between Personality Type and Job Burnout among Special Education Teachers. Dissertation Abstracts International: Section B: *The Sciences and Engineering*, 68(7-B), 4874.

John, O.P., & Srivastava, S. (1999). *The Big-Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives*. To appear in L. Pervin and O.P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed.). New York: Guilford (in press). Retrieved October 07, 2008, from <http://www.uoregon.edu/~sanjay/pubs/bigfive.pdf>

John, O.P., & Robins, R.W. (1993). Gordon Allport: Father and Critic of the Five-Factor Model. pp 215-236. In K.H. Craik, R. Hogan, & R.N. Wolfe (Eds). *Fifty Years of Personality Psychology*. New York: Plenum Press.

Johnson-Lenz, P.T. (2009). *Six Habits of Highly Resilient Organizations*. Retrieved June 23, 2009, from http://www.peopleandplace.net/perspectives/2009/2/2/six_habits_of_highly_resilient_organizations

Jooste, M., & Foxcroft, C. (2005). Measures of Affective Behaviour, Adjustment, and Well-being. Pp. 140-152. In C. Foxcroft and G. Roodt. (Eds.). *An Introduction to Psychological Assessment in the South African Context (2nd ed.)*. Cape Town: Oxford University Press.

Kim, H.J. Shin, K.H., & Umbreit, W.T. (2000). Hotel job burnout: The role of personality characteristics. *International Journal of Hospitality Management*, 26(2), 421-434. doi:10.1016/j.ijhm.2006.03.006

Kjellerup, N. (2001). *Personal View of the Coming Call Centre Boom in South Africa*. Retrieved March 14, 2008, from http://callcentres.com.au/South_Africa_Call_Centre_Boom..htm

Klest, B., Freyd, J.J., Goldberg, L, &. Hampson, S. (2007) *Trauma, Personality, and Resilience Against Depression: A Longitudinal Analysis*. Poster presented at the 115th Annual Convention of the American Psychological Association, San Francisco, California, August 17-20. Retrieved March 12, 2008, from <http://dynamic.uoregon.edu/~jjf/apa07/Ketalapa07.pdf>

Korotkov, D. (2008). Does Personality Moderate the Relationship between Stress and Health Behavior? Expanding the Nomological Network of the Five-Factor Model. *Journal of Research in Personality*, 42(6), 1418-1426. doi:10.1016/j.jrp.2008.06.003

Kovacs, M. (2007). Stress and Coping in the Workplace. *The Psychologist*, 20 (9), 548-550. Retrieved June 9, 2009, from http://www.thepsychologist.org.uk/archive/archive_home.cfm?volumeID=20&editionID=151&ArticleID=1239

Kruger, L., & Prinsloo, H. (2008). The Appraisal and Enhancement of Resilience Modalities in Middle Adolescents within the School Context. *South African Journal of Education*, 28, 241–259.

Kuhn, E. (2008). *Job Stress, Health, And Unexpected Consequences: How Stress-Caused Health Problems Can Kill Your Career*. Retrieved September 03, 2008, from <http://www.isnare.com/?aid=289844&ca=Career>

Kumpfer, L. K. (1999). Factors and Processes Contributing to Resilience: The Resilience Framework. In M. D. Glantz & J. L. Johnson (Eds), *Resilience and development: Positive Life Adaptations* (pp. 179-224). New York: Academic/Plenum.

Laher, S. (2007). Personality Reconceptualised: A Millonian Approach? *South African Journal of Psychology*. 37(1), 82-95.

Lawford, J., & Eiser, C. (2001). Exploring Links Between the Concepts of Quality of Life and Resilience. *Paediatric Rehabilitation*, 4(4), 209-216.

Lee, D. (2008). Why You Will Need a Resilient Workforce in Today's Economy. *HR Times*, Winter. Retrieved June 23, 2009, from http://www.humannatureatwork.com/articles/workplace_stress/resilientworkforce.htm

Leffert, N., Benson, P.L., Scales, P.C., Sharma, A.R., Drake, D.R., & Blyth, D.A. (1998). Developmental Assets: Measurement and Prediction of Risk Behaviors among Adolescents. *Applied Developmental Science*, 2(4), 209-230.

Leka, S., Griffiths, A., & Cox, T. (2003). *Work Organisation and Stress: Systematic Problem Approaches for Employers, Managers and Trade Union Representatives*. Retrieved May 02, 2009, from www.who.int/occupational_health/publications/en/oehestress.pdf

Lew, C.C. (2001). *A Factor Analytical Study of Adult Career Concerns, Career Status and Career Resilience*. Dissertation. Rand Afrikaans University, South Africa.

Lindström, B., & Eriksson, M. (2009). The Salutogenic Approach to the Making of Healthy Public Policy: Illustrated by a Case Study. *Global Health Promotion*, 16(1), 17-28. Abstract retrieved June 23, 2009, from <http://ped.sagepub.com/cgi/content/abstract/16/1/17>

Lim, B.C., & Ployhart, R.E. (2006). Assessing the Convergent and Discriminant Validity of Goldberg's International Personality Item Pool: A Multitrait-Multimethod Examination. *Organizational Research Methods*, 9(1), 29-54. Abstract retrieved October 01, 2009, from <http://orm.sagepub.com/cgi/content/abstract/9/1/29>

Lloyd, J. (1995). *Career Must be Resilient Enough to Withstand a few Hard Knocks*. Retrieved April 12, 2007, from <http://www.findarticles.com/p/articles>

London, M. (1993). Relationships Between Career Motivation, Empowerment and Support for Career Development. *Journal of Occupational and Organizational Psychology*, 66, 55-69.

Louw, D.A., & Edwards, D.J.A. (1995). *Psychology: an Introduction for Students in Southern Africa*. Johannesburg: Lexicon.

Louw, D.A., & Edwards, D.J.A. (1998). *Psychology: an Introduction for Students in Southern Africa* (2nd ed.). Rivonia: Heinemann.

Love, J. (2007). *How to Beat Job Burnout*. Retrieved December 01, 2008, from <http://www.jlmandassociates.com/articles/jobburnout.htm>

Lyons, D.M., & Parker, K.J. (2007). Stress Inoculation-Induced Indications of Resilience in Monkeys. *Journal of Traumatic Stress*, 20(4), 423-433.

Macdonald, N. (2007). *Towards an Operational Definition of the Resilience Approach*. Retrieved May 2, 2009, from www.oakfnd.org/activities/2008/Morges_Resilience_operational_deF_200806.pdf

Maddi, S.R. (1976). *Personality Theories: a Comparative Analysis*, (3rd ed.). Homewood: Dorsey Press.

Magennis, R., & Smith, D.B. (2005). *All Used Up: Factors Associated with Burnout Among Missouri Social Service Workers*. *Missouri Electronic Journal of Sociology*, 2-33.

Mandleco, B.L., & Peery, J.C. (2000). An Organizational Framework for Conceptualizing Resilience in Children. *Journal of Child and Adolescent Psychiatric Nursing*, 13(3), 99-111.

Marshall, J., & Cooper, C.L. (1981). The Causes of Managerial Job Stress: A Research Note on Methods and Initial Findings. pp 115-128. In E.N. Corlett., & J. Richardson. (Eds.). *Stress, Work Design, and Productivity*. Great Britain: John Wiley & Sons.

Martin, B. (2006). *Stress and Personality*. Retrieved July 02, 2008, from <http://psychcentral.com/lib/2006/stress-and-personality/>

Maru, M. (Ed) (2002). Job burnout: A Review of Recent Literature. *Journal of Occupational and Organizational Psychology*, 106(1), 5-48. Retrieved September 22, 2008, from <http://ajol.info/index.php/ajpsy/article/view/30282/30493>

Maslach, C. (1998). A multidimensional Theory of Burnout. Pp. 68-85. In C.L. Cooper (Ed). *Theories of Organizational Stress*. UK: Oxford University Press.

Maslach, C.M. (1982). *Burnout-the Cost of Caring*. New York: Prentice Hall Press

Maslach, C., & Leiter, M. P. (1997). The Truth About Burnout: How Organizations Cause Personal Stress and What to do About It. In M. Maru (Ed). *Job Burnout: A Review of Recent Literature*. Retrieved September 22, 2008, from <http://ajol.info/index.php/ajpsy/article/view/30282/30493>

Matthieu, M.M., & Ivanoff, A. (2006). Using Stress, Appraisal, and Coping Theories in Clinical Practice: Assessments of Coping Strategies after Disasters. *Brief Treatment and Crisis Intervention Journal*, 6(4), 337-348.

Mazibuko, N.J.L. (1996). *The Impact of Stress and burnout on Self-regulated Learning of Standard 9 Pupils*. A Psychopedagogical Investigation. Published Doctorate. University of the Free State, Free State, South Africa.

McManus, I.C., Keeling, A., & Paice, E. (2004). Stress, Burnout and Doctors' Attitudes to Work are Determined by Personality and Learning Style: A Twelve Year Longitudinal Study of UK Medical Graduates. *BMC Medicine*, 2(29). Abstract retrieved June 09, 2009, from www.biomedcentral.com/1741-7015/2/29

McKay, D.R. (2001). *Job Burnout: Part 1: Burnout Defined*. Retrieved September 23, 2008, from <http://careerplanning.about.com/od/workrelated/a/burnout.htm>

McLeod, S.A. (2007). *Sigmund Freud*. Retrieved April 19, 2009, from <http://www.simplypsychology.pwp.blueyonder.co.uk/psychodynamic.html>

McWilliams, L.A., Cox, B.J., & Enns, M.W. (2003). Use of the Coping Inventory for Stressful Situations in a Clinically Depressed Sample: Factor Structure, Personality Correlates, and Prediction of Distress. *Journal of Clinical Psychology*, 59(4), 423 – 437. Abstract retrieved March 13, 2008, from <http://www3.interscience.wiley.com/journal/106557159/abstract?CRETRY=1&SRETRY=0>

Meindl, S. (2009). *Grad School Perfectionism Creates Stress, Anxiety and Depression Rather Than Excellence*. Retrieved June 09, 2009, from <http://ezinearticles.com/?Grad-School-Perfectionism-Creates-Stress,-Anxiety-and-Depression-Rather-Than-Excellence&id=2210275>

Meyer, W.F., Moore, C., & Viljoen, H.G. (1989). *Personality Theories from Freud to Frankl*. Isando: Lexicon Publishers.

Miller, K., & Fisher, J. (2005). *Scientific management meets information technology: uses and abuses of call centre technology in South Africa*. Proceedings of CybErg. The Fourth International Cyberspace Conference on Ergonomics. Johannesburg: International Ergonomics Association Press. Retrieved May 20, 2008, from <http://web.wits.ac.za/NR/rdonlyres/B76128E4-5AC0-45D9-8880-F250E8692D59/0/organ2.pdf>

Morris, C.G & Maisto, A.A. (2002). *Psychology: An introduction* (11th ed.). New Jersey: Pearson Education, Inc.

Mostert, K., & Joubert, A.F. (2005). Job Stress, Burnout and Coping Strategies in the South African Police Service. *South African Journal of Economic Management and Sciences*, 8 (1), 39-53.

Musico, C. (2008). *Calling It Quits*. Retrieved August 27, 2008, from <http://web.ebscohost.com/ehost/pdf?vid=4&hid=7&sid=a0591f78-4499-4bec-9b2e-da1c68791533%40sessionmgr9>

Narayanan, A. (2007). Probabilistic Orientation and Resilience. *Journal of the Indian Academy of Applied Psychology*, 33(2), 269-274.

Neill, J. (2006). *What is Psychological Resilience?* Retrieved December 02, 2008, from <http://www.wilderdom.com/psychology/resilience/PsychologicalResilience.html006>

Neill, J. (2007). *Personality: Theory & Perspectives, An undergraduate psychology course about Individual Differences*. Retrieved May 20, 2007, from <http://wilderdom.com/personality/L12-0ReviewIntegration.html>.

Neill, J. T., & Dias, K. L. (2001). Adventure Education and Resilience: The Double-Edged Sword. *Journal of Adventure Education and Outdoor Learning*, 1(2), 35-42. Retrieved December 01, 2009 from <http://wilderdom.com/abstracts/NeillDias2001AdventureEducationResilienceDoubleEdgedSword.htm>

Nettles, S.M., Mucherah, W., & Jones, D.S. (2000). Understanding Resilience: The Role of Social Resources. *Journal of Education for Students Placed at Risk*, 5(1&2), 47–60.

New World Encyclopaedia. (2008). *Depth psychology*. Retrieved June 9, 2009, from http://www.newworldencyclopedia.org/entry/Depth_psychology?oldid=685681

Ngobeni, R.M. (2009). *The Impact of High Telecommunications Costs on the Callcentre Industry in Cape Town, South Africa*. (Masters thesis, Cape Peninsula University of Technology, Cape Town, South Africa). Retrieved from http://dk.cput.ac.za/cgi/viewcontent.cgi?article=1061&context=td_cput

Nicholas, L. (2003). *Introduction to Psychology*. Cape Town: UCT Press.

Norton, G. (1998). Stress and Coping. pp. 605-663. In D.A. Louw & D.J.A. Edwards (Eds.). *Psychology: an Introduction for Students in Southern Africa* (2nd ed.). Rivonia: Heinemann.

O'Neil, D. (2006). *Personality Development*. Retrieved October 16, 2008, from http://anthro.palomar.edu/social/soc_3.htm

Ong, A.D., & Bergeman, C.S. (2004). Resilience and Adaptation to Stress in Later life: Emperical Perspectives and Conceptual Implications. *Ageing International*, 29(3), 219-246.

O'Rourke, N. (2004). Psychological Resilience and the Well-Being of Widowed Women. *Ageing International*, 29(3), 267-280.

Palmer, S., Cooper, C., & Thomas, K. (2004). A Model of Work Stress to underpin the Health and Safety Executive Advice for Tackling Work-Related Stress and Stress Risk Assessments. *Counselling at Work*, Winter, 2–5. Retrieved June 22, 2008, from http://www.bacpworkplace.org.uk/journal_pdf/acw_winter04_a.pdf

Papworth, M. (2003). *Stress Busting*. Great Britain: Continuum.

Paine, W.S. (Ed.). (1982). *Job Stress and Burnout: Research, Theory, and Intervention Perspectives*. United States of America: SAGE publications Ltd.

Patterson, J.M. (2002). Understanding Family Resilience. *Journal of Clinical Psychology*, 58(3), 233-246.

Pawlik-Kienlen, L. (2007). *The Big Five Personality Traits: Your Personality Affects Every Aspect of Your Life!* Retrieved October 07, 2008, from http://psychology.suite101.com/article.cfm/the_big_five_personality_traits

Philippe, F.L., Lecours, S., & Beaulieu-Pelletier, G. (2009). Resilience and Positive Emotions: Examining the Mediating Role of Emotional Memories. *Journal of personality*, 77(1), 139-175.

Plomin, R., Chipuer, H.M., & Loehlin, J.C. (1990). Behavioral Genetics and Personality. Pp. 225-243. In L.A. Pervin (Ed.). *Handbook of Personality: Theory and Research*. New York: The Guilford Press.

Posella, D. (2004). *Coping Styles Used by Introverts and Extroverts in Varying Stress Situations*. Retrieved June 9, 2009, from http://web.sbu.edu/psychology/lavin/senior_seminar3.htm

Prieto, L.L., Soria, M.S., Martinez, I.M., & Schaufeli, W. (2008). Extension of the Job Demands-Resources Model in the Prediction of Burnout and Engagement Among Teachers Over Time. *Psicothema*, 20(3), 354-360.

Rak, C.F., & Patterson, L.E. (1996). Promoting Resilience in At-Risk Children. *Journal of Counseling & Development*, 74, 368-373.

Reichel, A., & Neumann, Y. (1993). Work Stress, Job Burnout and Work Outcomes in a Turbulent Environment. *International Studies of Management & Organization*, 23. Abstract retrieved September 22, 2008, from <http://www.questia.com/googleScholar.qst;jsessionid=Hy2RLf6W0RSp1VTCxQ3H2PbZkl2R36G7PYRyBTTKqyDfvtLrYJBm!-509525384?docId=5000246510>

Reivich, K., & Shatte, A. (2002). *The Resilience Factor: Seven Essential Skills for Overcoming Life's Inevitable Obstacles*. United States of America, New York: Broadway Books.

Renck, B., Weisæth, L., & Skarboè, S.R.G. (2002). Stress Reactions in Police Officers After a Disaster Rescue Operation. *Nord J Psychiatry*, 56, (1), 7-14.

Resiliency resource centre. (2007). *The Resiliency Model*. Retrieved June 23, 2009, from http://www.embracethefuture.org.au/resiliency/index.htm?http://www.embracethefuture.org.au/resiliency/resiliency_model.htm

Reza, A.M. (2003). *The Relationship Between Self-Esteem and Job Satisfaction of Personnel in Government Organizations*. Retrieved June 23, 2009, from <http://www.entrepreneur.com/tradejournals/article/160714670.html>

Richardson, G.E. (2002). The Metatheory of Resilience and Resiliency. *Journal of Clinical Psychology*, 58(3), 307-321.

Roesch, S.C., Weiner, B., & Vaughn, A.A. (2002). Cognitive Approaches to Stress and Coping. *Current Opinions in Psychiatry*, 15, 627-632. Retrieved May 02, 2009, from www.psychology.sdsu.edu/new-web/FacultyLabs/Roesch/RoeschPublications.htm

Rose, H.A. (2006). Asset-Based Development for Child and Youth Care. *Reclaiming Children and youth*, 14(4), 236-240.

Rothmann, S., Jackson, L.T.B., & Kruger, M.M. (2003). Burnout and Job Stress in a Local Government: The Moderating Effect of Sense of Coherence. *SA Journal of Industrial Psychology*, 29 (4), 52-60.

Sadock, B. J. & Sadock, V. A. (2003). *Synopsis of Psychiatry: Behavioral Sciences/ Clinical Psychiatry* (9th ed). USA: Lippincott Williams & Wilkins.

Sauter, S., Murphy, L., Colligan, M., Swanson, N., Hurrell, Jr J., Scharf, Jr. F., Grubb, R.S.P., Goldenhar, L., Alterman, T., Johnston, J., Hamilton, A., & Tisdale, J. (1999). *STRESS...At Work*. Retrieved September 02, 2008, from <http://www.cdc.gov/Niosh/stresswk.html>

Schoon, I., & Bynner, J. (2003). Risk and Resilience in the Life Course: Implications for Interventions and Social Policies. *Journal of Youth Studies*, 6(1), 21-31.

Schultz, D., & Schultz, S.E. (1998). *Psychology & Work Today: An Introduction to Industrial and Organizational psychology* (7th ed.). New Jersey: Prentice-Hall, Inc.

Scott, E. (2006). *Stress and Burnout: Burnout Symptoms and Causes*. Retrieved September 22, 2008, from http://stress.about.com/od/burnout/a/stressn_burnout.htm

Scott, E. (2006a). *Enhance Your Self Esteem for Stress Relief and Personal Happiness*. Retrieved December 12, 2008, from http://stress.about.com/od/optimismspirituality/qt/self_esteem.htm

Scott, E. (2006b). *Reduce Stress With Increased Assertiveness*. Retrieved August 07, 2009, from <http://stress.about.com/od/relationships/p/profileassertiv.htm>

Scott, E. (2007). *The Traits, Benefits and Development of Emotional Resilience*. Retrieved March 14, 2008, from <http://stress.about.com/od/understandingstress/a/resilience.htm>

Scott, E. (2008). *The Benefits of Optimism*. Retrieved August 07, 2009, from <http://stress.about.com/od/optimismspirituality/a/optimismbenefit.htm>

Semenchuk, E.M., & Larkin, K.T. (2008). *Theories of Stress*. Retrieved September 02, 2008, from <http://www.severehypertension.net/hbp/more/theories-of-stress/>

Seshu, G. (2003). *Stress in the sunshine sector*. Retrieved May 05, 2008, from <http://www.indiatogether.org/2003/jun/wom-stress.htm>

Sinclair, V.G., & Wallston K.A. (2009). The Development and Psychometric Evaluation of the Brief Resilient Coping Scale. *Assessment*, 11(1), 94-101. Retrieved May 13, 2009, from <http://asm.sagepub.com>

Smith, J. (2006). *The Influence of Coping and Stressors on Burnout and Compassion Fatigue among Health Care Professionals*. Doctoral thesis. Bloemfontein : University of the Free State, South Africa.

Smith, M., Jaffe-Gill, E., Segal, J., & Segal, R. (2007). *Preventing Burnout Signs, Symptoms, and Strategies to Avoid It*. Retrieved February 25, 2008, from http://www.helpguide.org/mental/burnout_signs_symptoms.htm#signs

Spangenberg, J.J., & de Villiers, A. (2007). Stress and its Implications for Family Practice. *South African Family Practice*,49(6), 30-32.

Staal, M. A. (August 2004). *Stress, Cognition, and Human Performance: A Literature Review and Conceptual Framework*. NASA Technical Memorandum 2004-212824 Retrieved April 16, 2009, from <http://humanfactors.arc.nasa.gov/web/library/publications/publications.php>

Stoeber, J., & Rennert, D. (2008). Perfectionism in School Teachers: Relations with Stress Appraisal, Coping Styles, and Burnout. *Anxiety, Stress, & Coping*, 21(1), 37-53.

Storm, K., & Rothmann, S. (2003). The Relationship between Burnout, Personality Traits and Coping Strategies in a Corporate Pharmaceutical Group. *South African Journal of Industrial Psychology*, 29(4), 35-42.

Strumpher, D.J.W. (2003). Resilience and Burnout: A Stitch That Could Save Nine. *South African Journal of Psychology*, 33(2), 69-79.

Sun, J., & Stewart, D. (2007). Development of Population Based Resilience Measures in the Primary School Setting. *Health Education*, 107(6), 575-599. Abstract retrieved May 13, 2009, from <http://www.emeraldinsight.com/Insight/viewContentItem.do;jsessionid=C67300BB1AE9EF4D22D32F6BB7728312?contentType=Article&hdAction=Inkhtml&contentId=1634445>

Sutherland V.J., & Cooper, C.L. (1996). Stress Prevention in the Offshore Oil and Gas Exploration and Production Industry. International Labour Office Geneva. *Stress and Health*, 12(1), 27 – 34. Retrieved May 02, 2009, from www.ilo.org/public/english/protection/condtrav/pdf/wc-vs-cc-96.pdf

Swanepoel, H.F., & Oudtshoorn, S.V.R. (1988). Die Rol van Persoonlikheidstrekke in die Weerstand teen Stres [The Role of Personality Traits in the Resistance against Stress]. *Journal of Industrial Psychology*, 14(1), 18-22.

Taylor, P., Baldry, C., Bain, P., & Ellis, V. (2004). A Unique Working Environment: Health, Sickness and Absence Management in UK Call Work. *Employment and Society*, 17(3), 435–458

The South African Depression and Anxiety Group. (2008). *African Journal of Psychiatry*, August, 237-238.

Theron, L.C. (2004). The Role of Personal Protective Factors in Anchoring Psychological Resilience in Adolescents with Learning Difficulties. *South African Journal of Education*, 24(4), 317–321.

Theron, D. (2005). Beating Burnout: The Stress Menace. *Management Today*, 21(8), 56-58.

Trochim, W.M.K. (2006). *Inferential Statistics*. Retrieved February 24, 2007, from <http://www.socialresearchmethods.net>

Tyler, G. (2004). *Literature Review for the Personality at Work Research Project*. Retrieved October 07, 2008, from http://www.personality.cn/personality_at_work_2.htm

Van den Berg, H., Bester, C., Janse-van Rensburg-Bonthuyzen, E., Engelbrecht, M., Hlope, H., Summerton, J., Smit, J., du Plooy, S., & van Rensburg, D. (2006). *Burnout and Compassion Fatigue in Professional Nurses*. Bloemfontein: Centre for Health Systems Research and Development.

Van Rooyen, J., & Partners. (2007). *Catalogue*.

Van Vuuren, L.L., & Fouie, C. (2000). Career Anchors and Career Resilience: Supplementary Constructs? *Journal of Industrial Psychology*, 26(3), 15-20.

Van Wagner, K. (2006). *The "Big Five" Personality Dimensions*. Retrieved March 12, 2008, from <http://psychology.about.com/od/personalitydevelopment/a/bigfive.htm>

Van Wagner, K. (2006a). *Personality Development: Major Theories of Personality Development*. Retrieved October 16, 2008, from <http://psychology.about.com/od/personalitydevelopment/a/personality-dev.htm>

Vickers, M.H., & Parris, M.A. (2007). "Your Job No Longer Exists!": From Experiences of Alienation to Expectations of Resilience—A Phenomenological Study. *Employ Response Rights Journal*, 19, 113–125.

Visser, W.A. (2007). *Daily Hassles, Resilience, and Burnout of Call Centre Staff*. Published Doctorate. Campus of the North-West University, Potchefstroom, South Africa.

Wayne, J.H. (2005). *It's not Just the Situation but Who You are That Counts: The Role of Personality in Balancing Work and Family*. Retrieved August 07, 2009, from www.brandeis.edu/centers/cfwp/Powerpoints/Wayne.ppt

Wagnild, G.M., & Young, H.M. (1993). *The Resilience Scale*. Retrieved May 13, 2009, from <http://www.resiliencescale.com/>

Waite, M. (Ed). (1994). *The Oxford Dictionary*. Oxford: Clarendon Press.

Walsh, F. (2003). Family Resilience: A Framework for Clinical Practice. *Family Process*, 42(1), 1-18.

Watson, R., Deary, I., Thompson, D., & Li, G. (2008). A Study of Stress and Burnout in Nursing Students in Hong Kong: A Questionnaire Survey. *International Journal of Nursing Studies*, 45(10), 1534-1542. Retrieved March 04, 2008, from http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6T7T-4RR2155_user=736898&_coverDate=01%2F31%2F2008&_alid=691198710&_rdoc=4&_fmt=full&_orig=search&_cdi=5067&_sort=d&_docanchor=&_view=c&_ct=31&_a_cct=ARTICLE

Wierda-Boer, H., Vermulst, A., & Gerris, J. (2009). *Emotional Stability, Stress and Work-Family Conflict in Young Dual Earner Families*. Retrieved August 07, 2009, from http://www-classic.uni-graz.at/psy9www/FamWork/download/ESFR_nijmegen_poster.pdf

Wiese, L., Rothmann, S., & Storm, K. (2003). Coping, Stress, and Burnout in the South African Police Service in Kwazulu Natal. *South African Journal of Industrial Psychology*, 29(4), 71-80.

Williams, P.G., Rau, H.K., Cribbet, M.R., & Gunn, H.E. (2009). Openness to Experience and Stress Regulation. *Journal of Research in Personality*, 43(5), 777-784. doi:10.1016/j.jrp.2009.06.003

Wilson, S.M., & Ferch, S.R. (2005). Enhancing Resilience in the Workplace through the Practice of Caring Relationships. *Organizational Development Journal*, 23(4), 45-60.

Zeng, C.K., & Chi, K. (2006). Relationship of Big Five Personality with Employees' Job Burnout. *Chinese Journal of Clinical Psychology*, 15(6), 614-616.

Summary

Research has shown that staff members of call centres are experiencing high levels of job stress due to the demands of their jobs. Employees frequently have no control over their work environment and external factors that affect their performance and job satisfaction. They could, however, develop and utilize internal resources, like specific personality factors that can enable them to manage their job stress more effectively. The aims of the study was to determine the levels of job stress and burnout of staff members of a call centre and to identify specific personality factors that could be valid predictors of the ability of employees of a call centre to manage job stress and burnout effectively. Several studies have focused on the relationship between personality, job stress and burnout, but the Big Five personality traits and resilience as predictors of job stress and burnout have not received adequate attention. Non-probability sampling and specifically accidental sampling was used in a call centre in Bloemfontein, South Africa. The call centre involved is an out-bound, debt collecting call centre, with clients in South Africa and neighbouring states. A total of 187 employees in the call centre were involved in the study. The respondents were mainly black, female, single, South Sotho, between 21 and 25 years of age, acquired a grade 12 qualification and have served for less than one year. The measuring instruments that were used, include the International Personality Item Pool, the Resilience Scale, the Maslach Burnout Inventory (Human Services Survey) and the Experience of Work and Life Circumstances Questionnaire. Multiple stepwise regression analysis was used as statistical technique to process the data. Respondents exhibited a high level of job stress, an average level of emotional exhaustion, a high level of depersonalization and a low level of personal accomplishment. A significant linear relationship was found between job stress and specific Big Five personality factors, namely emotional stability and openness to experience. A significant linear relationship was also identified between conscientiousness and specific dimensions of burnout, namely emotional exhaustion and depersonalization. Resilience and more specifically

acceptance of self and life was also found to be a valid predictor of depersonalization, a dimension of burnout. Conscientiousness, agreeableness and resilience were found to be valid predictors of the personal accomplishment dimension of burnout. Future research in this regard should be done with a more representative sample of call centres in South Africa in order to generalize the results to call centres in general. The personality factors that have been identified in this study as valid predictors of the effective management of job stress and burnout could be used for purposes of selection and training in call centres.

Key words: Personality, resilience, job stress, burnout, call centre, South Africa, Big Five personality factors

Opsomming

Navorsing het aangetoon dat personeellede van Oproepsentra hoë vlakke van werkstres en uitbranding ervaar as gevolg van die werksvereistes wat met hulle werk gepaard gaan. Werknemers het dikwels geen beheer oor hulle werkomgewings en eksterne faktore wat hulle werkprestasie en werkstevredenheid beïnvloed nie. Hulle kan egter bepaalde interne bronne soos spesifieke persoonlikheidsfaktore ontwikkel en benut wat hulle in staat kan stel om hulle werkstres meer effektief te bestuur. Die doelwitte van die studie was om die vlak van werkstres en uitbranding van werknemers van 'n oproepsentrum te bepaal en om spesifieke persoonlikheidsfaktore te identifiseer wat as geldige voorspellers van werknemers van 'n oproepsentrum se vermoë om werkstres en uitbranding effektief te bestuur, kan dien. Verskeie studies het gefokus op die verband tussen persoonlikheid, werkstres en uitbranding, maar die Groot Vyf persoonlikheidsfaktore en veerkrachtigheid as voorspellers van werkstres en uitbranding het nie voldoende aandag geniet nie. Nie-waarskynlikheidssteekproefneming en spesifiek toevallige steekproefneming in 'n oproepsentrum in Bloemfontein, Suid-Afrika is gebruik. Die betrokke oproepsentrum is 'n ongebonde, skuldinvorderingsoproepsentrum met kliënte in Suid-Afrika en aangrensende state. 'n Totaal van 187 werknemers van die oproepsentrum het aan die studie deelgeneem. Die respondente was hoofsaaklik swart, vroulik, alleenlopend, Suid-Sotho sprekend, tussen die ouderdomme 21 tot 25 jaar, beskik oor 'n graad 12-kwalifikasie en het vir minder as 'n jaar diens. Die meetinstrumente wat in die studie gebruik is, is die Internasionale Persoonlikheidsitempoel, die Veerkrachtigheidsskaal, die Maslach Uitbrandingsvraelys (Menslike diensopname) en die Ervaring van Werk- en Lewensomstandighede-vraelys. 'n Meerveranderlike stapsgewyse regressie-ontleding is as statistieke tegniek gebruik om die resultate te verwerk. Respondents exhibited a high level of job stress, an average level of emotional exhaustion, a high level of depersonalization and a low level of personal accomplishment. Die respondente het 'n hoë vlak van werkstres, 'n gemiddelde

vlak van emosionele uitputting, 'n hoë vlak van depersonalisasie en 'n lae vlak van persoonlike prestasie getoon. 'n Beduidende lineêre verband is gevind tussen spesifieke Groot Vyf persoonlikheidsfaktore en werkstres, naamlik emosionele stabiliteit en openheid tot ervaring. 'n Beduidende lineêre verband is ook identifiseer tussen pligsgetrouheid en sekere dimensies van uitbranding, naamlik emosionele uitputting en depersonalisasie. Veerkragtigheid en meer spesifiek aanvaarding van self en die lewe is geïdentifiseer as 'n geldige voorspeller van depersonalisasie, 'n dimensie van uitbranding. Pligsgetrouheid, insiklikheid en veerkragtigheid is geïdentifiseer as geldige voorspellers van persoonlike prestasie, 'n dimensie van uitbranding. Toekomstige navorsing in hierdie verband moet gedoen word met 'n meer verteenwoordigende steekproef van oproepsentra in Suid-Afrika sodat die resultate na oproepsentra oor die algemeen veralgemeen kan word. Die persoonlikheidsfaktore wat in hierdie studie as geldige voorspellers van die doeltreffende bestuur van werkstres en uitbranding geïdentifiseer is, kan kan gebruik word vir keurings- en opleidingsdoeleindes in oproepsentra.

Sleutelwoorde: Persoonlikheid, veerkragtigheid, werkstres, uitbranding, oproepsentrum, Groot Vyf-persoonlikheidsfaktore.