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CHAPTER 1: SCIENTIFIC OVERVIEW OF THE RESEARCH

This research focuses on the development of a psychological coping profile for call centre agents in the African context. The constructs of relevance to the research are sense of coherence, emotional intelligence and burnout (as a composite set of independent wellness-related dispositional attributes), as well as career adaptability and hardiness (as a composite set of dependent resiliency-related behavioural capacities). This chapter provides the background to and a motivation for the research which result in the formulation of the problem statement and the research questions. Subsequently, the aims of the research are stated and the paradigm perspectives, which guide the research, discussed. Further, the research design and the research method, including the different steps that give structure to the research process, are formulated. Finally, the manner in which the chapters will be presented is introduced.

1.1 BACKGROUND AND MOTIVATION FOR THE RESEARCH

The context of this research is the coping of call centre agents in a characteristically high-stress work environment compounded by the contemporary world of work that is increasingly uncertain and turbulent. In the context of this study, coping is viewed as a form of problem-solving behaviour, involving cognitive and behavioural strategies, and either an adjustment to the situation or of the situation (Devi, 2012; Park & Defrank, 2010). This research may potentially inform organisational wellness practices in the call centre environment. More specifically, the research focuses on a set of coping constructs, namely: (1) sense of coherence, emotional intelligence and burnout (as a composite set of independent wellness-related dispositional attributes); and (2) career adaptability and hardiness (as a composite set of dependent resiliency-related behavioural capacities). These constructs are generally regarded as the personal resources (Savickas & Porfeli, 2012) individuals should employ in order to deal proactively and constructively with the stressors in a call centre environment. This study explicates the complexity of the challenges that call centre agents experience in terms of their wellbeing. Research has shown that call centre work is characterised by high turnover rates and absenteeism, and other aspects of call centre work which include performance measures, recruitment monitoring and surveillance, training, and the role of supervision (Borgogni, Consiglio, Allesandri & Schaufeli, 2012; Consiglio, Borgogni, Allesandri & Schaufeli, 2013; Harry, 2011; Harry & Coetzee, 2011; Poddar & Madupalli, 2012).

High turnover rates and absenteeism levels in the call centre environment are well documented (Borgogni et al., 2012; Consiglio et al., 2013; Jacobs & Roodt, 2011; Poddar & Madupalli, 2012). In addition, Malhotra and Mukherjee (2004) claim that call centre work is one of the ten most stressful job in today's economy. Moreover, the amount of emotional labour required of call centre employees is a source of much stress. "Emotional labour" refers to the emotional or interpersonal element of a call centre agent's job, for example dealing with angry customers, calming people down and projecting a friendly image even if the agent is not feeling positive him/herself (Borgogni et al., 2012; Consiglio et al., 2013; Jacobs & Roodt, 2011; Poddar & Madupalli, 2012). In many call centres, performance management is closely linked to monitoring and is dominated by stop watches and call duration (Jacobs & Roodt, 2011; Poddar & Madupalli, 2012). The issue of meeting time-based targets is linked to employee stress (Poddar & Madupalli, 2012).

Many call centre managers find it hard to recruit and retain suitable staff which has a negative impact on customer service, as poorly motivated and poorly suited employees are unlikely to provide the service quality necessary for high levels of customer satisfaction (Poddar & Madupalli, 2012). In addition, advances in computer technology have led to call centres being characterised by high levels of surveillance and monitoring, in which agents are subject to monitoring and the unrelenting pressure to conform to acceptable forms of speech, whether scripted or not (Brophy, 2010; Taylor & Bain, 1999). Accordingly, the supervisor's role is crucial to staff wellbeing, as supervisors have the capacity to influence employee commitment and motivation (Borgogni et al., 2012; Consiglio et al., 2013; Jacobs & Roodt, 2011; Poddar & Madupalli, 2012).

Call centres are seen as a prime example of a stressful work environment that is characterised by low pay, low status, high levels of monitoring and little discussion or opportunity for progression (Consiglio et al., 2013). Yet there have been few attempts to examine the degree to which individuals cope psychologically in a call centre work environment. Numerous studies have been conducted on anxiety, depression, intrinsic and extrinsic job satisfaction, absenteeism and exhaustion in the call centre environment (Consiglio et al., 2013; Borgogni et al., 2012; Perry, Rubino & Witt, 2011). However, the psychological dispositional attributes and behavioural capacities that constitute the coping profile of a call centre employee appear to be under-researched.

In the past, psychological research has emphasised ill health and the problems of mental health (Cilliers, 2011). Consequently, little is known about positive personal resources (psychological attributes and behavioural capacities) and their interaction with each other (Cilliers, 2011). Research shows that the majority of individuals in call centres do not suffer from mental health problems (Harry, 2011; Harry & Coetzee, 2011) and call centre agents appear to be able to manage their lives and work reasonably well (Harry, 2011; Harry & Coetzee, 2011; Gryn, 2010; Latif, 2010). Sense of coherence, emotional intelligence, career adaptability and hardiness has been linked to higher levels of wellbeing (Antonovsky, 1987a; Bezuidenhout & Cilliers, 2010; Cilliers, 2011; Harry, 2011). Accordingly, the present study investigated personal resources from a different perspective, namely, from a wellness (dispositional attributes) and resiliency (behavioural capacities) perspective, and also investigates the interaction between the constructs that constitute the wellness-related dispositional attributes and the resiliency-related behavioural capacities of call centre agents.

Sense of coherence, emotional intelligence and burnout are viewed as wellness-related dispositional attributes in this study. Sense of coherence explains how people feel, how they perceive, behave and cope with demanding and challenging (stressful) situations, and how they keep healthy (Rothmann, Jackson, & Kruger, 2003; Sairenchi, Haruyama, Ishikawa, Wada, Kimura & Muto, 2011). Individuals who possess emotional skills and a sense of coherence are more likely to perform well in the workplace and demonstrate positive behaviours (Rothmann, et al., 2003). Sense of coherence and emotional intelligence has also strong links with psychological wellbeing (Rothmann, et al., 2003).

Emotional intelligence was found to lower burnout development by increasing emotional coping resources and social skills which can benefit individuals in health and wellness (Görgens-Eckermans & Herbert, 2013). Sense of coherence can be understood as representing an autonomous personal resource capable of contributing directly to subjective wellbeing, which is related to lower rating of stress and can act as a buffer against burnout (Rothmann, et al., 2003; Sairenchi, et al., 2011).

Career adaptability and hardiness are viewed as resiliency-related behavioural capacities in this study. Adaptability relates to how adults adjust to challenges of a changing world of work and adapt proactively to changing career circumstance. The concept of adaptability also reflects the ability to constructively handle new challenging career contexts (Hirschi,

2012). Hardiness is viewed as a collection of characteristics that function as flexible resources.

Age, gender, race and marital status appear to significantly influence individuals' sense of coherence, emotional intelligence, burnout, career adaptability and hardiness (Bezuidenhout & Cilliers, 2010). With regard to age, a person who is older has a stronger sense of coherence, this being as a result of the development of the individual's total personality. During adolescence a person's sense of identity develops and during the twenties individuals normally develop psychological stability (Bezuidenhout & Cilliers, 2010), with a strong sense of coherence generally being developed by the age of 30. The life experience that results in a strong sense of coherence may vary from culture to culture. It is therefore important that an individual has had the life experience that can lead to a strong sense of coherence. In relation to gender, males tend to have a slightly higher sense of coherence than females (Bezuidenhout & Cilliers, 2010). Gender may account for significant differences in sense of coherence (Sairenchi, et al., 2011).

Different studies have found no statistically significant differences between females and males overall on emotional intelligence. However, some differences have been observed when looking separately at a few factors being measured by emotional intelligence questionnaires, in that females tend to be more aware of their own feelings, while males tend to manage their emotions more effectively (Roy & Chaturvedi, 2011). Men and women experience burnout fairly similarly. However slight differences exist in that women tend to experience more of the emotional aspect of burnout (Choi & Jin, 2010). In relation to age, younger workers are more prone to experiencing burnout than older workers (Bezuidenhout & Cilliers, 2010), as with increased age people become more stable and mature (Bezuidenhout & Cilliers, 2010).

Moreover, workers who are single tend to experience higher levels of burnout than those who are providers for families (Bezuidenhout & Cilliers, 2010). Research suggests that the early career workforce is likely to demonstrate higher levels of adaptability than those in older age categories. Motivation to change decreases with age and it has been proposed that middle-aged individuals should be more adaptable than the elderly (Rostami, Abedi, Bagnhan, & Savickas, 2012). Middle-aged and older adults may have negative attitudes towards the developmental experiences that are required to become adaptable because such experiences may be taking place at an unexpected time in their lives (Rostami et al.,

2012). Gender also relates to individuals' career adaptability, with women showing higher levels of career adaptability than their male counterparts (Ferreira, 2012a). Research has indicated that males tend to have higher levels of hardiness than females and that younger individuals have higher levels of hardiness (Latif, 2010). Research conducted by Ferreira, (2012b) revealed that black women tended to have higher scores on hardiness and single individuals' scores on hardiness was higher than that of married individuals.

1.2 PROBLEM STATEMENT

In view of the aforementioned discussion, this research study aims to extend research on employee wellness practices in the call centre environment by empirically investigating the relationship dynamics between call centre agents' wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and their resiliency-related behavioural capacities (career adaptability and hardiness). It is hypothesised that the empirical investigation of this relationship will assist in constructing an overall psychological coping profile for call centre agents that may be useful in employee wellness interventions.

However, a review of the current literature on sense of coherence, emotional intelligence, burnout, career adaptability and hardiness indicates the following research problems:

Theoretical models do not clarify the relationship between sense of coherence, emotional intelligence and burnout (as a composite set of wellness-related dispositions), and career adaptability and hardiness (as a composite set of resiliency-related behavioural capacities). In the context of a coping profile within a call centre environment, industrial and organisational psychologists, as well as human resource practitioners, require knowledge about the nature of the theoretical and observed relationship between these variables, as the knowledge that may be gained by the research may potentially bring new insights that could inform organisational wellness strategies.

Although the constructs of relevance to the present study have been well researched in the literature, the relationship dynamics between these constructs as they manifest in the call centre environment have not yet been researched. In this regard, the research is original and novel in its approach to contributing to the wellness literature.

The problem statement leads to the following general research question and a set of subsequent specific research questions outlined below:

What are the relationship dynamics between call centre agents' sense of coherence, emotional intelligence and burnout (as a composite set of wellness-related dispositions), and their career adaptability and hardiness (as a composite set of resiliency-related behavioural capacities), and can an overall psychological coping profile be constructed to inform employee wellness practices in the multicultural call centre context?

From the above, the following specific research questions were formulated in terms of the literature review and the empirical study:

1.2.1 Research questions arising from the literature review

Research question 1: How does the literature conceptualise coping behaviour and wellness in a call centre environment within the context of the contemporary world of work?

Research question 2: How are the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness) conceptualised and explained by theoretical models in the literature?

Research question 3: What is the nature of the theoretical relationship between the wellness-related dispositional attributes (sense of constructs coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness) and how can this relationship be explained in terms of an integrated theoretical model?

Research question 4: Can a conceptual psychological coping profile for call centre agents be proposed based on the theoretical relationship dynamics between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness)?

Research question 5: What are the implications of a psychological coping profile for organisational wellness practices?

1.2.2 Research questions with regard to the empirical study

In terms of the empirical study, the following specific research questions have been formulated:

Research question 1: What is the nature of the statistical interrelationships between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness) as manifested in a sample of respondents employed in a call centre environment?

Research question 2: What is the nature of the overall statistical relationship between the wellness-related dispositional attributes construct as a composite set of independent latent variables (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities construct as a composite set of dependent latent variables (career adaptability and hardiness)?

Research question 3: Do the variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness)?

Research question 4: Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), is there a good fit between the elements of the empirically manifested structural model and the theoretically hypothesised model?

Research question 5: Do the biographical variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct?

Research question 6: Do significant differences exist between the sub-groups of biographical variables that acted as significant moderators between the wellness-related dispositional

attributes construct and the resiliency-related behavioural capacities construct, as manifested in the sample of respondents?

Research question 7: What recommendations can be formulated for organisational wellness practices in the call centre environment and what suggestions can be made for future research in the field?

1.3 AIMS OF THE RESEARCH

From the above research questions, the following aims are formulated:

1.3.1 General aims of the research

The general aim of this research is to determine the relationship dynamics between call centre agents' sense of coherence, emotional intelligence and burnout (as a composite set of wellness-related dispositions), and career adaptability and hardiness (as a composite set of resiliency-related behavioural capacities), and whether an overall psychological coping profile can be constructed to inform employee wellness practices in a multicultural call centre context. The research also aims to investigate whether the biographical characteristics (age, gender, race and marital status) of call centre agents significantly moderate the relationship between their wellness-related dispositional attributes and the resiliency-related behavioural capacities.

1.3.2 Specific aims of the research

The following specific aims have been formulated for the literature review and the empirical study:

1.3.2.1 Literature review

Research aim 1: To conceptualise coping behaviour and wellness in a call centre environment within the context of the contemporary world of work.

Research aim 2: To conceptualise the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural

capacities (career adaptability and hardiness) by means of theoretical models in the literature.

Research aim 3: To conceptualise the nature of the theoretical relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness) and explain this relationship in terms of an integrated theoretical model.

Research aim 4: To propose a hypothetical theoretical psychological coping profile for call centre agents based on the theoretical relationship dynamics between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness).

Research aim 5: To critically evaluate the implications of a psychological coping profile for organisations' wellness practices in the call centre environment.

1.3.2.2 Empirical study

The specific aims of the empirical study are the following:

Research aim 1: To investigate the nature of the statistical interrelationships between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness) as manifested in a sample of respondents employed in a call centre environment.

Research aim 2: To assess the nature of the overall statistical relationship between the wellness-related dispositional attributes construct as a composite set of independent latent variables (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities construct as a composite set of dependent latent variables (career adaptability and hardiness).

Research aim 3: To assess whether the variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).

Research aim 4: Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), to assess the fit between the elements of the empirically manifested structural model and the theoretically hypothesised model.

Research aim 5: To assess whether the biographical variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct.

Research aim 6: To assess whether significant differences exist between the sub-groups of biographical variables that acted as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct, as manifested in the sample of respondents.

Research aim 7: To formulate recommendations for organisational wellness practices in the call centre environment and for future research.

1.4 STATEMENT OF SIGNIFICANCE

The factors underlying the problem of developing a psychological coping profile for call centre staff seem to be varied and complex and many factors either hinder or help such a process. The role of dispositional attributes such as sense of coherence, emotional intelligence and burnout, and capacities such as career adaptability and hardiness, is complex and, although well researched, there seems to be a paucity of research on how these variables manifest in terms of call centre agent's psychological coping attributes in a call centre context.

This research is a novel and original starting point in investigating for a relationship between sense of coherence (as defined by Antonovsky, 1987a), emotional intelligence (as defined by Salovey & Mayer, 1990), burnout (as defined by Schaufeli, 2004), career adaptability (as defined by Savickas, 1997) and hardiness (as defined by Kobasa, 1993), and how these variables manifest in the African call centre environment.

1.4.1 Potential contribution on a theoretical level

On a theoretical level, this study may prove useful in identifying the relationships found between the constructs of sense of coherence, emotional intelligence and burnout (independent wellness-related dispositional attributes variables), and the constructs of career adaptability and hardiness (dependent resiliency-related behavioural capacities variables). If significant relationships are found, then the findings will be useful in the construction of a hypothetical theoretical psychological coping profile for the wellbeing of call centre staff that can be empirically tested.

1.4.2 Potential contribution on an empirical level

On an empirical level, the research may contribute by constructing an empirically tested psychological coping profile that could be used to inform wellness practices. If no relationships are found between the variables, then the usefulness of this study is restricted to the elimination of sense of coherence, emotional intelligence, burnout, career adaptability, and hardiness as coping attributes in a call centre environment, and energy can be transferred to other research studies and avenues that could yield significant proof for solving the problem of how call centre agents could cope better in a call centre work environment.

In addition, the study may point out whether individuals from different age, gender, race and marital status groups differ in terms of their sense of coherence, emotional intelligence, burnout, career adaptability and hardiness. Considering the current organisational context characterised by cultural and generational diversity, the results may be valuable in the construction of an empirically tested coping profile by identifying differences in terms of the biographical information that address the needs of a diverse group of staff members.

1.4.3 Potential contribution on a practical level

On a practical level, industrial and organisational psychologists and human resource practitioners may develop a better understanding of the constructs of sense of coherence, emotional intelligence, burnout, career adaptability and hardiness in considering the psychological coping profile of a call centre agent that could positively influence the wellness of valuable employees. Subsequently, if this could be done, the outcomes would be

important enough to justify the pursuit of this study. Positive outcomes from the proposed research could include raising awareness of the fact that individuals in the workplace differ in terms of psychological coping resources, sense of coherence, emotional intelligence, burnout, career adaptability and hardiness and that, in order to promote wellbeing in the call centre environment, each individual needs to be treated in a manner that is appropriate to them.

Where statistically and practically significant relationships between these constructs are found, the findings may prove useful for future researchers exploring the possibility of lowering the effects of turnover and absenteeism in attempts to allow call centre agents to cope better with work in a call centre environment. Furthermore, the research results may contribute to the body of knowledge on the psychological attributes and capacities that influence turnover and absenteeism in the call centre work environment.

This research is original because there is to date no existing study on the relationship between sense of coherence, emotional intelligence, burnout and career adaptability and hardiness. Studies on the overall relationship between these constructs are rare, as is research on the construction of a psychological coping profile based on this specific set of variables, especially in the call centre work environment (Borgogni et al., 2012; Consiglio et al., 2013; Harry & Coetzee, 2011; Harry, 2011; Perry et al., 2011).

1.5 THE RESEARCH MODEL

According to Scotland (2012), a research model incorporates the five dimensions of social science research, namely, the sociological, ontological, teleological, epistemological and methodological dimensions, and their systemisation within the framework of the research process. These five dimensions are aspects of one and the same process, namely, research. The sociological dimension conforms to the requirements of the sociological research ethic which makes use of the research community for its sources of theory development. The ontological dimension encompasses that which is investigated in reality. The teleological dimension suggests that the research should be systematic and goal directed. The epistemological dimension relates to the quest for truth. The methodological assumptions are beliefs about the nature of social science and scientific research.

The assumption of the research model is that it represents a social process. Social science research is a collaborative human activity in which social reality is studied objectively with the aim of gaining a valid understanding of it (Scotland, 2012). Such a model is described as a systems theoretical model with three subsystems. These subsystems are interrelated with each other and with the research domain of the specific discipline – in this case Industrial and Organisational Psychology. The subsystems are anchored in a specific research paradigm and comprise the intellectual climate, the market of intellectual resources and the research process itself.

1.6 PARADIGM PERSPECTIVES OF THE RESEARCH

For the purpose of this research the term “paradigm” is used in its meta-theoretical, theoretical and methodological senses coupled with the assumptions underlying the theories and models that form the definitive context of a study (Scotland, 2012).

In the social sciences a paradigm will include the accepted theories, models, body of research and the methodologies of a specific perspective (Scotland, 2012). Its origin is mainly philosophical and is neither testable nor meant to be tested. The present study will be conducted in the field of Industrial and Organisational Psychology.

1.6.1 The intellectual climate

Thematically, the constructs of sense of coherence, emotional intelligence, burnout and career adaptability and hardiness are relevant to this study. The literature review will be presented from the humanistic paradigm, the fortigenic paradigm and the salutogenic paradigm, while the empirical study will be presented from the perspective of the positivist research paradigm.

1.6.1.1 Literature review

The literature will be presented from the perspective of the humanistic, fortigenic and salutogenic paradigms.

(a) The humanistic paradigm

Thematically, the constructs of career adaptability and hardiness are presented from the perspective of the humanistic paradigm. According to Cilliers and May, (2010) and Särkan and Nemic (2011), the basic assumptions of the humanistic paradigm are as follows:

The individual is an integrated whole.

The current study focuses on perspectives of individuals in an organisation as being collective. It goes beyond exploring the views of individuals in that unit, taking into consideration the impact of the collective on the individual.

The individual is a dignified human being.

Human beings have qualities that distinguish them from other objects such as stones and trees. The current study is interested in the sample's opinions and perceptions.

Human nature is positive.

People are basically good and their destructive behaviour is due to environmental influences such as unemployment, poverty, favouritism, discrimination and racism.

The individual has conscious processes.

Conscious processes dictate individuals' decisions. The focus of the study on organisational commitment will be used to obtain information about the way individuals perceive the organisation.

The individual is an active being.

Individuals are active participants in life, make choices and are responsible for the course their life takes.

(b) The fortigenic paradigm

Thematically, the constructs of sense of coherence and emotional intelligence are presented from the perspective of the fortigenic paradigm. The fortigenic paradigm focuses on the origins of strength. Fortitude therefore is formally defined as the strength to manage stress and stay well, and this strength derives from an appraisal of the self, the family and support from others (De Lange, 2010). It is believed that people are born with the tendency to

appraise the environment and themselves (De Lange, 2010). As a result of people's countless experiences with the world, they develop general beliefs about themselves and the world. According to cognitive experiential self-theory (De Lange, 2010), these beliefs develop into an implicit model of the world, or 'theory of reality' that has two major divisions: a world-theory and a self-theory. These constructs about the self and the world plays a major role in how we adapt to the world. In this regard appraisal constitutes an active construction of reality (De Lange, 2010). It is therefore suggested that the appraisals that are especially relevant for coping are the following:

- An evaluative awareness of the self, includes both the global appraisal of the self as well as more specific appraisals such as problem-solving efficacy and mastery or competence.
- An evaluative awareness of the family environment includes support from family, level of conflict and cohesiveness in the family and family values.
- An evaluative awareness of support from others includes beliefs about the efficacy of using such support resources.
- Fortigenisis in essence, therefore, is the strength derived from appraising ourselves and our world positively, enabling us to cope with life stress (De Lange, 2010).

(c) The salutogenic paradigm

Thematically, the constructs of sense of coherence and burnout are presented from the salutogenic perspective. Antonovsky (1992, p. 33) defines the salutogenic paradigm as the approach that seeks to explain health rather than disease. Accordingly, the salutogenic approach focuses on coping rather than sickness. However, psychology not since 2000 overemphasises the "pathogenic" model as opposed to a salutogenic model. According to Bezuidenhout and Cilliers (2010) and Cilliers (2011), salutogenesis refers to the enablement of individuals, groups or organisations, in terms of which their capacities, competences, strengths and forces are emphasised in order to create a sense of coherence and to perceive life as comprehensible, manageable and meaningful (Bezuidenhout & Cilliers, 2010; Cilliers, 2011, Sairenchi et al., 2011).

1.6.1.2 *Empirical Research*

The empirical research will be presented from the positivist research paradigm. Positivism predominates in science and according to this approach it is assumed that science quantitatively measures independent facts about a single apprehensible reality (Hammersley, 2012; Scotland, 2012). In other words, the data and their analyses are value-free and the data do not change because they are observed. Positivism is therefore a rejection of metaphysics; it is the position that holds that the goal of knowledge is simply to describe the phenomena that people experience and the purpose is to stick to what people can observe and measure (Hammersley, 2012; Scotland, 2012).

According to Scotland (2012), the positivist paradigm can be viewed as realism, that is, the view that objects have an existence independent of the knower; thus, a discoverable reality exists independently of the researcher. Positivist methodology is directed at explaining relationships and attempts to identify causes that influence outcomes (Scotland, 2012). The aim is to formulate laws, thus yielding a basis for prediction and generalisation. Accordingly, a deductive approach is undertaken. Correlation and experimentation are used to reduce complex interactions to their constituent parts (Scotland, 2012). Verifiable evidence is sought via direct experience and observation; this often involves empirical testing, random samples, controlled variables (independent, dependent and moderator) and control groups. Scotland (2012) maintained that a nomothetic approach one which is characterised by procedures and methods designed to discover general laws. Positivists view their methodology as value neutral, thus the knowledge generated is value neutral.

Scotland (2012) viewed the positivist paradigm as an epistemology which seeks to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements. According to the positivist epistemology, science is seen as the way to get at the truth, to understand the world well enough so that it can be predicted and controlled (Hammersley, 2012). The world and the universe are deterministic; they operate by laws of cause and effect that are discernable if people apply the unique approach of the scientific method. Hence, the positivist paradigm is based on empiricism, the idea that observation and measurement are at the core of scientific endeavour (Hammersley, 2012; Scotland, 2012).

This empirical research study will consist of a quantitative study conducted within the ambit of the positivist research paradigm. Thematically, the quantitative empirical study focuses on investigating the relationship dynamics between the variables sense of coherence, emotional intelligence, burnout, career adaptability and hardiness. This study provides quantitative measures of these constructs that have a concrete and tangible value through the use of statistical science and techniques. This quantitative approach is seen as being objective and relating to phenomena or conditions that are independent of individual thought and perceptible to all observers by relying on statistical procedures (Scotland, 2012).

1.6.2 The market of intellectual resources

The market of intellectual resources refers to the collection of beliefs that has a direct bearing on the epistemic states of scientific statements (Salkind, 2012). For the purpose of this study, the theoretical models, meta-theoretical statements and conceptual descriptions about sense of coherence, emotional intelligence, burnout and career adaptability and hardiness, as well as the central hypothesis and theoretical and methodological assumptions are presented.

1.6.2.1 Meta-theoretical statements

The underlying assumptions of theories, models and paradigms form the context of a specific study (Salkind, 2012). In the disciplinary context, this study focuses on Industrial and Organisational Psychology as a field of application (Salkind, 2012).

Industrial and Organisational Psychology may be viewed in many ways, one of which focuses on its epistemological premises and the scientific status of these premises. The “scientist” component indicates the use of rigorous scientific methodology. The epistemology of scientific knowledge in the discipline is intended to understand and predict and then either change or influence workplace-related human behaviour (Van Vuuren, 2010). Thematically, this research will provide an understanding of behaviour in a call centre environment by applying the constructs of sense of coherence, emotional intelligence, burnout and career adaptability and hardiness. The industrial psychologist and the human resource practitioner are both scientists who derive principles of individual, group and organisational behaviour through research (Van Vuuren, 2010).

1.6.2.2 Conceptual descriptions

The following conceptual descriptions serve as points of departure for the discussion in this research:

(a) Burnout

Burnout is defined as a persistent, negative, work-related state of mind in “normal” individuals that is primarily characterised by exhaustion and accompanied by distress, a sense of reduced effectiveness, decreased motivation, and the development of dysfunctional attitudes and behaviours at work (Bezuidenhout & Cilliers, 2010; Brand-Labuschagne, Mostert, Rothmann Jnr, & Rothmann, 2012; Cilliers, 2011).

(b) Career adaptability

Career adaptability is defined as the willingness to manage the predictable tasks of planning for and contributing in the work context, taking into consideration the random changes endorsed by transformation in work and working conditions (Savickas & Porfeli, 2012).

(c) Coping

Coping is viewed as a form of problem-solving behaviour, which involves cognitive and behavioural strategies, and either an adjustment of the situation (Devi, 2012). Coping is a fundamental psychological process which builds on people's strengths and emphasises the positive (Marx, 2011). Coping is viewed as developing better skills and competencies to deal with a specific problem, seeking social support and information, and a reappraisal of the problem – a problem-solving strategy (Devi, 2012; Marx, 2011; Morgan, Davies & Ziglio, 2010).

(d) Emotional Intelligence

Peter Salovey and John Mayer (1990) defined emotional intelligence as the form of intelligence that involves the ability to monitor one's own and others' thinking and emotions and to discriminate among them and use the information to guide thinking. It also includes having the ability to perceive the emotions to facilitate thoughts, understand the emotions and to regulate these emotions for personal growth

(e) Hardiness

For the purpose of this research hardiness is conceptualised as a multidimensional construct consisting of commitment to work and having a set of attitudes or beliefs about oneself in interaction with the world around one (Kobasa, 1979). This provides the courage and motivation to do the hard work of turning stressful changes from potential disasters into opportunities instead (Ferreira, 2012; Latif, 2010).

(f) Sense of coherence

Mcomb and Viviers (2012) held that humans are able to make sense of their reality despite the increased complexity that they experience. Sense of coherence is the particular way in which individuals appraise or understand their environment and which allows them to make sense of complex environments (Cilliers 2011). Sense of coherence is conceptualised as a psychological, global orientation that influences the way in which individuals understand their environments. It can therefore give rise to individual differences in behaviour (Bezuidenhout & Cilliers, 2010; Cilliers, 2011; Mcomb & Viviers, 2012).

(g) Wellness

Sieberhagen, Pienaar and Els (2011) examined philosophical writings on wellness and concluded that a purpose in life, quality connections to others, self-regard and mastery are the key dimensions in life which are central to positive mental health. Different authors defined human wellbeing as both emotional and physical health, and wellness as a way of life which is orientated towards optimal health and wellbeing (Sieberhagen et al., 2011).

1.6.2.3 *Central hypothesis*

The central hypothesis of the research is formulated as follows:

The relationship dynamics between call centre agents' sense of coherence, emotional intelligence and burnout (as a composite set of independent wellness-related dispositional attributes), and their career adaptability and hardiness (as a composite set of dependent resilience behavioural capacities) constitute a psychological coping profile that may be used to inform organisational wellness practices. Call centre agents' biographical characteristics (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities. Furthermore, individuals from different age, gender, race and marital status groups will have different levels of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and resiliency-related behavioural capacities (career adaptability and hardiness).

1.6.2.4 *Theoretical assumptions*

Based on the literature review, the following theoretical assumptions are addressed in this research:

There is a need for basic research that seeks to isolate psychological wellness-related attributes (sense of coherence, emotional intelligence, burnout) and resiliency-related behavioural capacities (career adaptability and hardiness).

Environmental, biographical and psychological factors, such as sociocultural background, race/ethnicity, gender, life-span development and people's range of psychological wellness-related attributes (sense of coherence, emotional intelligence, burnout) and resiliency-related behavioural capacities (career adaptability and hardiness), will influence individuals' wellbeing in a call centre environment.

The relationship between the five constructs, sense of coherence, emotional intelligence, burnout and career adaptability and hardiness, can be moderated by external factors such as age, gender, race and marital status.

Knowing an individual's levels respectively of sense of coherence, emotional intelligence, burnout and career adaptability and hardiness will increase understanding of the factors that may potentially inform employee wellness practices.

1.6.2.5 Methodological assumptions

Methodological assumptions are beliefs that concern the nature of social science and scientific research (Scotland, 2012). These methodological beliefs are more than methodological preferences, assumptions and presuppositions about what constitutes good research. There is a direct link between methodological beliefs and the epistemic status of research findings (Salkind, 2012). Accordingly, the following main epistemological assumptions are the methodological assumptions that affect the nature and structure of the research domain. These relate to the methodological choices, assumptions and suppositions that make for good research.

(a) Sociological dimension

The sociological dimension conforms to the requirements of the sociological research ethic that makes use of the research community for its sources of theory development, which is viewed as a joint or collaborative activity (Scotland, 2012). Within the bounds of the sociological dimension, research is experimental, analytical and exact, since the issues that are being studied are subject to quantitative research analysis. The variables and concepts related to this research will be described in chapter 5 (empirical research) and chapter 6 (research results).

(b) Ontological dimension

The ontological dimension of research is the study of "being" or "reality" (Scotland, 2012). This reality is referred to as the domain of social science research, which encompasses human activities and institutions whose behaviour can be measured. This research study measured the properties of the constructs of sense of coherence, emotional intelligence, burnout and career adaptability and hardiness.

(c) Teleological dimension

The teleological dimension is the practice of science that is goal orientated (Scotland, 2012). Research goals refer to the immediate goal of a given research project, the different types of goals, and the relationship between research goals and the ideals of social science. The research goals in this research are explicit, namely, to measure the relationship between sense of coherence, emotional intelligence, burnout and career adaptability and hardiness. Furthermore, in practical terms the teleological dimension looks to further the field of Industrial and Organisational Psychology by with knowledge that could enable an organisation to potentially inform employee wellness practices.

(d) Epistemological dimension

According to Mouton and Marais (1996), this dimension is the key to the social sciences. The epistemic dimension may be regarded as the embodiment of the ideal of science, namely, the quest for truth. A primary aim of research is to generate valid findings which approximate reality as closely as possible (Mouton & Marais, 1996). This research attempts to achieve this truth through a good research design and the achievement of reliable and valid results.

(e) Methodological dimension

Methodological assumptions in the social sciences are related to research that may be regarded as objective by virtue of its being critical, balanced, unbiased, systematic and controllable (Salkind, 2012; Scotland, 2012). The methodological dimension concerns what may be called the “how” of social science research. In other words, how should research be planned, structured and executed in order to comply with the criteria of science? This is defined as the logic of applying scientific methods to the investigation of phenomena. According to Salkind (2011), research methodological is the theory of correct scientific decisions. The aim of the methodology dimension is to develop a more critical orientation on the part of researchers by eliminating obviously incorrect decisions and, in so doing, to maximise the validity of research findings (Salkind, 2012).

In this research study, quantitative (exploratory, descriptive and explanatory) research presented in the form of a literature review and empirical study on sense of coherence, emotional intelligence, burnout and career adaptability and hardiness.

1.7 RESEARCH DESIGN

According to Salkind (2011), research design is defined as the arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance with the research purpose. Such a design is viewed as a strategic framework which serves as a bridge between the research questions and the execution of the research. The research design will be discussed by reference to the types of research conducted, followed by a discussion on validity and reliability.

1.7.1 Exploratory research

According to Salkind (2011), exploratory research refers to the exploration of a relatively unknown research field. The key issues are to gain new insights, establish central concepts and constructs, and then establish priorities. This research is exploratory in that it compares various theoretical perspectives on sense of coherence, emotional intelligence, burnout and career adaptability and hardiness within a call centre environment.

1.7.2 Descriptive research

Descriptive research refers to the in-depth description of the specific individual, situation, group, organisation, tribe, culture, subculture, interactions or social objects (Salkind, 2012). Its purpose is to classify systematically the relationships between variables in the research domain. The overriding aim is to describe issues as accurately as possible.

In the literature review, descriptive research applies to the conceptualisation of the constructs of sense of coherence, emotional intelligence, burnout and career adaptability and hardiness. In the empirical study, descriptive research applies to the frequencies, means, standard deviations and Cronbach's alphas (internal consistency reliabilities) of the constructs of sense of coherence, emotional intelligence, burnout, career adaptability and hardiness

1.7.3 Explanatory research

Explanatory research goes further than merely indicating that a relationship exists between the variables (Salkind, 2012); it indicates causality between variables or events. Its major aim is to explain given phenomena. However, due to the cross-sectional nature of the present study's research design, the focus will not be on cause-effect relationships. Accordingly, the researcher seeks to explain the direction and magnitude of the relationship between the variables relevant to the present study. In the empirical study, this form of research will be applicable to the relationship between the sense of coherence, emotional intelligence, burnout and career adaptability and hardiness scores of a group of subjects.

The end goal of the research is to formulate a conclusion on the relationship between the constructs of sense of coherence, emotional intelligence, burnout and career adaptability and hardiness with the aim of constructing a psychological coping profile for the call centre agent.

This research thus fulfils the requirements of the type of research outlined above.

1.7.4 Validity

Research design is synonymous with rational decision making during the research process and, irrespective of how structured or unstructured a research project is likely to be, it is the duty of the researcher to ascertain the factors that may pose a threat to the validity of the findings (Salkind, 2012).

Research should be both internally and externally valid. Internal validity refers to the study generating accurate and valid findings on a specific phenomenon (Salkind, 2012). As shown in Table 1.1, a project is referred to as having produced internally valid results if the constructs were measured in a valid manner. For research to be internally valid the constructs must be measured in a valid manner and the data measured must be accurate and reliable. Moreover, the analysis should be relevant to the type of data collected, and the final solutions must be adequately supported by the data. Internal validity also refers to whether variations in the dependent variables can be attributed to the independent variables and not to extraneous or confounding variables related to, for example, maturation, history, testing or instrumentation (Salkind, 2012).

External validity refers to a further stage in the research process, that is, that the findings of a given project are generalisable to all similar cases. In other words, the findings have a greater validity than merely for the project in which they are generated (Tredoux & Durrheim, 2013). Salkind (2011) states that for the research to be externally valid the findings must be applicable to all similar cases and must also be valid for similar studies other than the one under review. External validity is also associated with the sampling procedures used, the time and place of the research, and the conditions under which the research will be conducted (Salkind, 2012).

Table 1.1: *Internal Validity*

Internal validity	
Conceptualisation	Theoretical validity
Constructs	Construct validity
Operationalisation	Measurement validity
Data collection	Reliability
Analysis/interpretation	Inferential validity

Source: Mouton and Marais (1994, p. 51)

1.7.4.1 *Validity with regard to the literature*

In this research, validity is ensured by making use of literature that relates to the nature, problems and aims of the research. In this research, some of the constructs, concepts and dimensions that form part of psychological coping, that is, wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and resiliency-related behavioural capacities (career adaptability and hardiness), are to be found in the relevant literature. Constructs, concepts and dimensions were not chosen subjectively. Moreover, such concepts and constructs are ordered logically and systematically, and every attempt has been made to search for and make use of the most recent literature sources, although a number of the classical and contemporary mainstream research streams have also been referred to, because of their relevance for the conceptualisation of the constructs relating to this research.

1.7.4.2 Validity with to regard to the empirical research

In the empirical research, internal validity will be ensured through the use of appropriate and standardised measuring instruments. The measuring instruments will be critically examined for their criterion-related validity (to ensure accurate prediction of scores on the relevant criterion), content validity and construct validity (the extent to which the measuring instruments measure the theoretical constructs they purport to measure). A large as possible sample is chosen to offset the effects of extraneous variables. The questionnaire will also include standard instructions and information to all participants. The statistical procedures will also control for biographical variables (age, gender, race and marital status). The instruments will be tested for construct validity and reliability. Internal validity will further be ensured by minimising selection bias (targeting the total population of call centre agents in three of the largest outsourced call centres in Africa).

External validity will be ensured by the results being relevant only to call centre agents. Targeting the total population of call centre agents in three of the largest outsourced call centres in Africa, will help to increase the generalisability of the results to the target population. The research will be cross-sectional in nature and non-probability sampling will be used. Standard instructions will be provided to all participants

1.7.5 Reliability

Reliability is the requirement that the application of valid measuring instruments to different individuals and groups under different sets of circumstances will yield results with the same conclusion (Salkind, 2012). Reliability in the literature will be addressed by using the existing literature sources, theories and models that are available to researchers (Salkind, 2012).

Reliability is ensured by structuring the research model in such a manner that nuisance variables are limited. The reliability of a literature review is ensured when other interested academics have access to the literature sources and to the theoretical views in the literature. The reliability of the empirical research is ensured when a truly representative sample is used. In this research confounding variables will be minimised through the sampling procedure and by including instruments of which the reliability has been proven through previous research.

1.7.6 The unit of research

In the social sciences, the most common object of research is the individual human being (Salkind, 2012). The unit of analysis distinguishes between the characteristics, conditions, orientations and actions of the individuals, groups, organisations and social artefacts (Salkind, 2012). This research focuses on the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness). On an individual level, the individual scores on each of the measuring instruments will be taken into consideration; on a group level the overall scores on all the measuring instruments will be taken into consideration. On a sub-group level the age, gender, race and marital status scores will be taken into consideration in determining whether there is a relationship between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness) in order to develop a psychological coping profile for employee wellness that can be used in practice in call centre environments.

1.7.7 The variables

In terms of this research, the criterion data of career adaptability and hardiness are the two dependent variables, and the criterion data of sense of coherence, emotional intelligence and burnout are the three independent variables. This research is interested in measuring the direction and magnitude of the relationship between three independent variables (sense of coherence, emotional intelligence and burnout) and two dependent variables (career adaptability and hardiness). The research will also assess the magnitude of the overall relationship between the overall wellness-related dispositional construct (as independent variable) and the resilience-related behavioural capacity construct (as dependent variable). The distinction between the independent and dependent variables refers to the basic cause and effect between specific events or phenomena (Salkind, 2012). However, as previously mentioned due to the cross-sectional nature of the research, the focus will not be on establishing cause and effect, but rather to establish the nature, direction and magnitude of the relationship between the variables.

In order to measure the relationship between the independent variables (sense of coherence, emotional intelligence and burnout) and the dependent variables (career

adaptability and hardiness), criterion data on the latent variables and the dependent variables will be collected by means of standardised criteria forms (the measuring instruments) selected for the purpose of this research.

The biographical variables (age, gender, race and marital status) will be treated as person-centered variables moderating the relationship between the wellness-related dispositional attributes (independent variable) and the resiliency-related behavioural capacities (dependent variable).

Figure 1.1 provides an overview of the relationship between the independent, moderating and dependent variables.

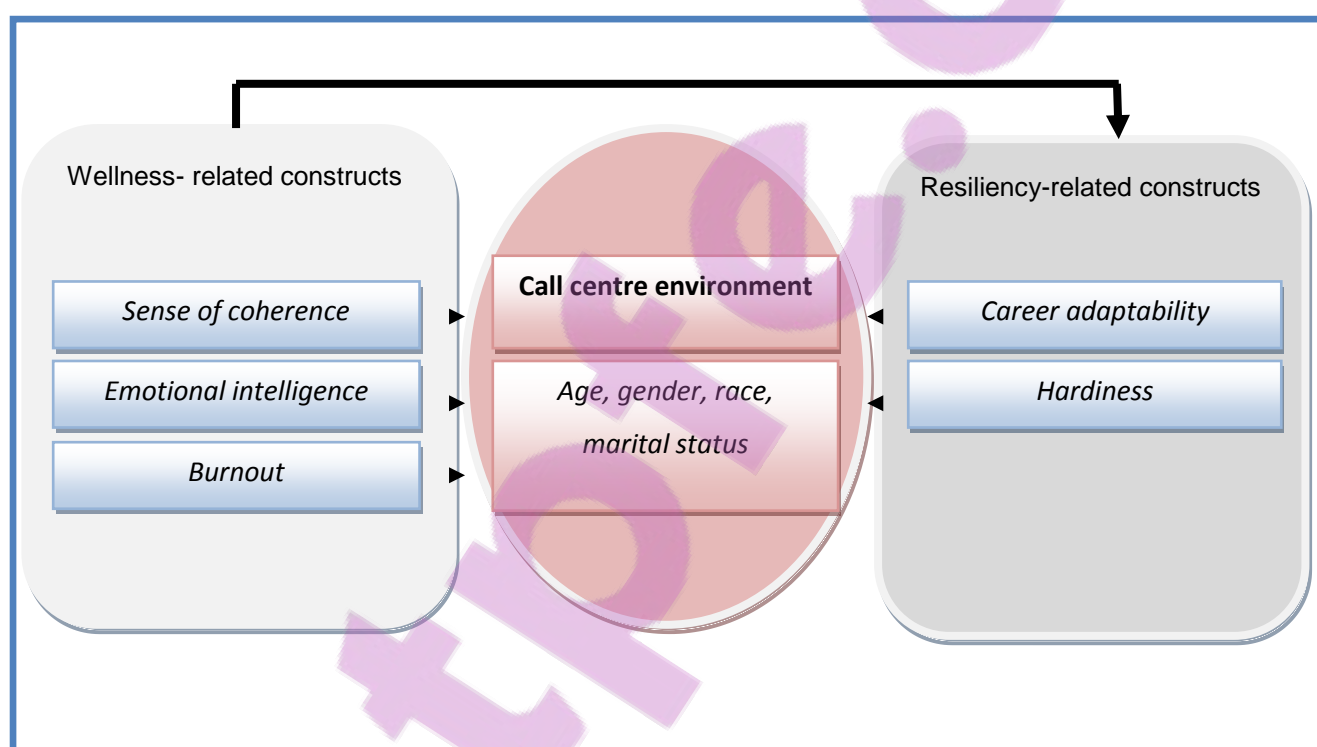


Figure 1.1: The relationship between the variables

1.7.8 Delimitations

The study is confined to research dealing with the relationship between five core variables, namely, sense of coherence, emotional intelligence, burnout, and career adaptability and hardiness. In an attempt to identify oblique factors that could influence individuals' levels of sense of coherence, emotional intelligence, burnout and career adaptability and hardiness, the variables used as control variables are limited to age, gender, race and marital status.

No attempt will be made to manipulate or classify any of the information, results or data on the basis of family or spiritual background. Also not included in any classification process are factors of disability or illness, physical or psychological. The research is intended as foundational research that restricts its focus to the relationship between sense of coherence, emotional intelligence, burnout, and career adaptability and hardiness. If such a relationship is indeed identified then this foundational information could be useful to future researchers to address other issues relating to the five constructs. The selected research approach is not intended to establish the cause and effect of the relationship, but merely to endeavour to investigate whether such relationships do, in fact, exist and whether the relationships between sense of coherence, emotional intelligence, burnout, and career adaptability and hardiness are influenced by variables such as age, gender, race and marital status.

The research will be conducted in two phases, each comprising different steps, which will be discussed in the section below. Figure 1.2 gives an overview of the different phases, and figure 1.3 gives an overview of the research methodology.

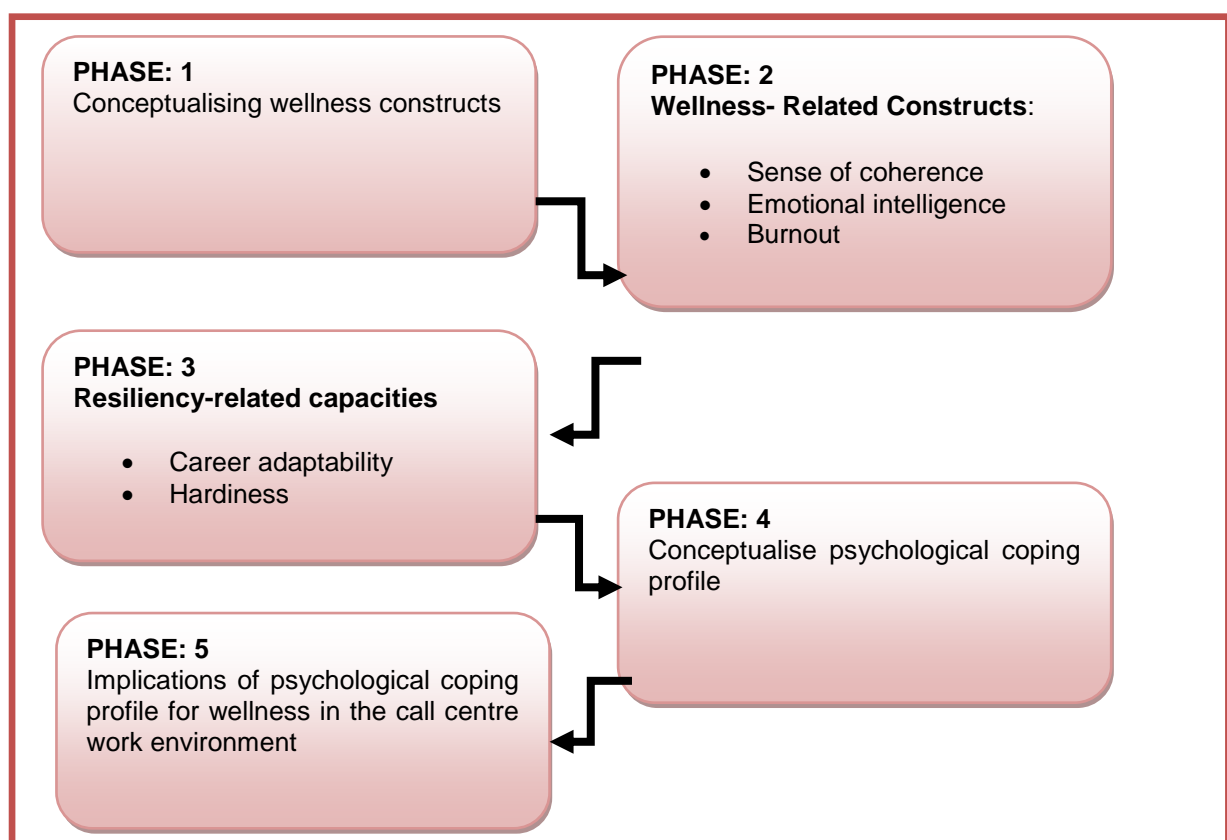


Figure 1.2: Overview of the literature review

1.8 PHASE 2: THE EMPIRICAL STUDY

The research will entail a quantitative cross-sectional survey design which comprises of nine steps. These are outlined below. The advantages of a survey design are that it is cost-effective and a large number of respondents can be surveyed (Salkind, 2012).

Figure 1.3 provides an overview of the nine steps of the research methodology

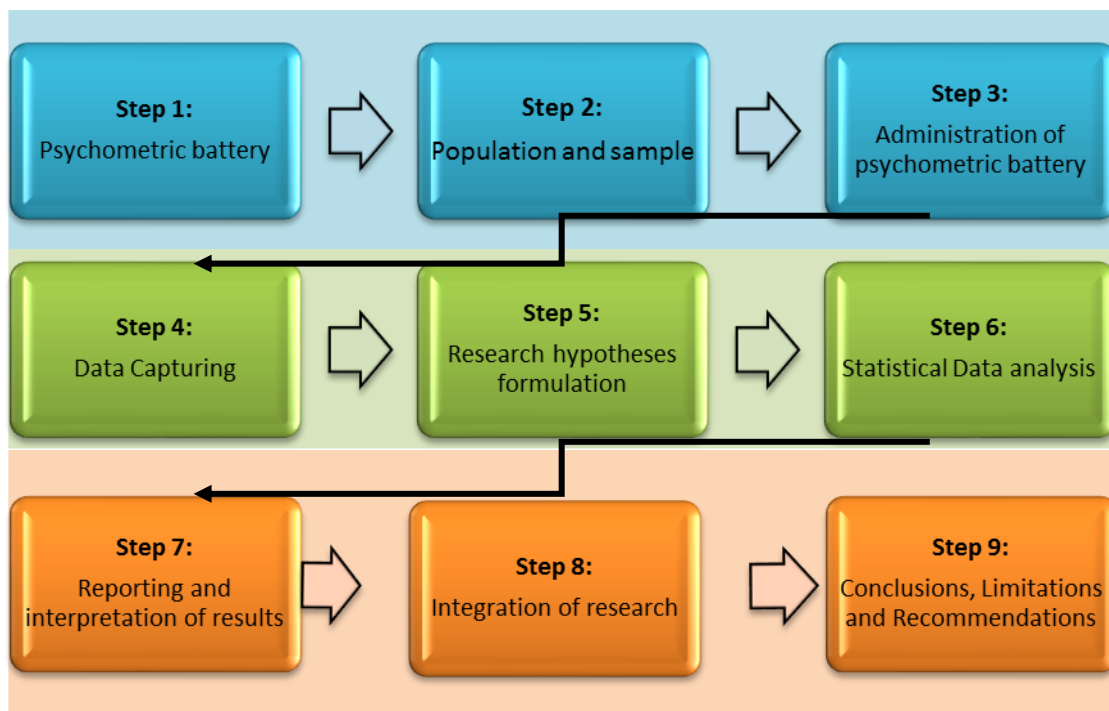


Figure 1.3: Overview of the research methodology

1.8.1 Phase 1: Literature review

The literature review will consist of a review of the wellness-related dispositional attributes (sense of coherence, emotional intelligence, and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness) in the call centre environment with a focus on the coping and wellness of call centre agents.

Step 1: Conceptualising the meta-theoretical context of coping behaviour and wellness within a call centre environment in the contemporary world of work

Research into the field of coping behaviour and wellness within a call centre work environment in the contemporary world of work is critically evaluated. The variables influencing coping behaviour will be identified, followed by an exploration of the changing nature of careers in a call centre environment. Finally, the implications of a psychological coping profile for wellness practices in a call centre environment will be assessed.

Step 2: Wellness-related dispositional attributes

A critical evaluation will be made of the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and how these constructs are conceptualised and explained by theoretical models in the literature. Finally, the implications of the wellness-related dispositional attributes for coping strategies in a call centre environment will be assessed.

Sense of coherence (SOC)

A critical evaluation will be made of research in the field of Industrial and Organisational Psychology relating to the construct of sense of coherence. Based on this evaluation, a conceptual model of sense of coherence will be constructed to illustrate the principles and concepts discussed in the literature. Integral to Antonovsky's (1985) salutogenic theory is the role of generalised resistance resources (GRRs) and stressors, termed "generalised resistance deficits" (GRDs). Finally, the implications for Industrial and Organisational Psychology practices pertaining to wellness, will be discussed.

Emotional intelligence (EI)

A critical evaluation will be made of research in the field of Industrial and Organisational Psychology relating to the construct of emotional intelligence (EI). Trait-based emotional intelligence can be described as a concentration of emotional intelligence that includes not only mental abilities related to intelligence and emotion, but also other personality dispositions and traits such as motives, sociability and warmth (Yu-Chi, 2011). The mixed models of emotional intelligence not only focus on mental ability (such as the ability model), but also take into consideration the personality factors that may have an impact on a person's emotional intelligence (Yu-Chi, 2011). Based on this conceptualisation of the construct of emotional intelligence, a conceptual model incorporating Salovey and Meyer's (1997), Goleman's (2001) and Bar-On's (2002) models will be constructed to illustrate the principles and concepts discussed in the literature. Finally, the implications for Industrial and Organisational Psychology practices pertaining to wellness will be discussed.

Burnout (BO)

A critical evaluation will be made of research in the field of Industrial and Organisational Psychology relating to the construct of burnout. Based on this evaluation, the following conceptual models will be constructed: the Conservation of Resources model of burnout (Hobfoll & Shirom, 1993) and the Job-Demands-Resource model of burnout (Demerouti, Bakker, Nachreiner & Schaufeli, 2001). These will then be analysed to illustrate the principles and concepts discussed in the literature. Finally, their implications for Industrial and Organisational Psychology practices pertaining to wellness will be discussed.

Step 3: Resiliency-related behavioural capacities

A critical evaluation will be made of research relating to the constructs of resiliency-related behavioural capacities (career adaptability and hardiness), and the way these constructs are conceptualised and explained by theoretical models in the literature. Finally, the implications of the resiliency-related behavioural capacities for coping strategies in a call centre environment will be discussed.

Career adaptability (CA)

A critical evaluation will be made of research in the field of Career Psychology relating to the construct of career adaptability. Based on this conceptualisation of the construct of career adaptability, a career adaptability (Savickas, 2005) conceptual model will be constructed to illustrate the principles and concepts discussed in the literature. Finally, the implications for Industrial and Organisational Psychology practices pertaining to wellness will be discussed.

Hardiness (HA)

A critical evaluation will be made of research in the field of Industrial and Organisational Psychology relating to the construct of hardiness. Based on this conceptualisation of the construct of hardiness, Kobasa's (1982) concept of hardiness will be analysed to illustrate the principles discussed in the literature. Hardy people are hypothesised as displaying *commitment* or *involvement* in daily activities, are perceived as having *control* over life events, and as having a tendency to view unexpected change or potential threat as a positive *challenge* rather than as an aversive event. Finally, the implications for Industrial and Organisational Psychology practices pertaining to wellness will be discussed.

Step 4: The integration of the hypothetical theoretical psychological coping profile of the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness)

This step relates to the theoretical integration and construction of a hypothetical theoretical psychological coping profile comprising the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness). This profile will be based on the hypothetical relationship between these constructs and the cognitive, affective, conative and interpersonal behavioural dimensions they constitute. Moreover, its implications for Industrial and Organisational Psychology practices pertaining to wellness will be discussed.

1.8.2 PHASE 2: THE EMPIRICAL STUDY

The research will entail a quantitative survey design comprising the nine steps outlined below. Some of the advantages of a survey design are that, firstly, it is cost-effective and, secondly, a large number of respondents can be surveyed (Salkind, 2012).

Step 1: Determination and description of the sample

The procedure for determining the sample and the sample characteristics will be outlined and discussed in this step (chapter 5).

Step 2: Choosing and motivating the psychometric battery

In this step the measuring instruments used to conduct this research will be discussed (chapter 5).

Step 3: Administration of the psychometric battery

This step will entail a discussion on the process used to collect data (chapter 5).

Step 4: Scoring of the psychometric battery

This step will comprise a discussion on “the what” in which the data will be captured and analysed (chapter 5).

Step 5: Formulation of the research hypotheses

During this step, the research hypotheses for achieving the objectives of the study will be formulated (chapter 5).

Step 6: Statistical processing of data

This step will consist of a discussion on the statistical procedures relevant to this research (chapter 5).

Step 7: Reporting and interpreting the results

This step will involve a discussion on the way in which the results of the research will be presented (chapter 6).

Step 8: Integration of the research findings

In this step, the findings relating to the literature review will be integrated with the findings from the empirical research in order to present the overall findings of the research (chapter 6).

Step 9: Formulation of conclusions, limitations, and recommendations

The final step entails the presentation of the conclusions of the research based on the results and their integration with theory. The limitations of the research will be discussed, and recommendations will be made in terms of sense of coherence, emotional intelligence, burnout, career adaptability and hardiness for the coping profile for call centre agents (chapter 7).

The flow of the research process is illustrated in figure 1.4.

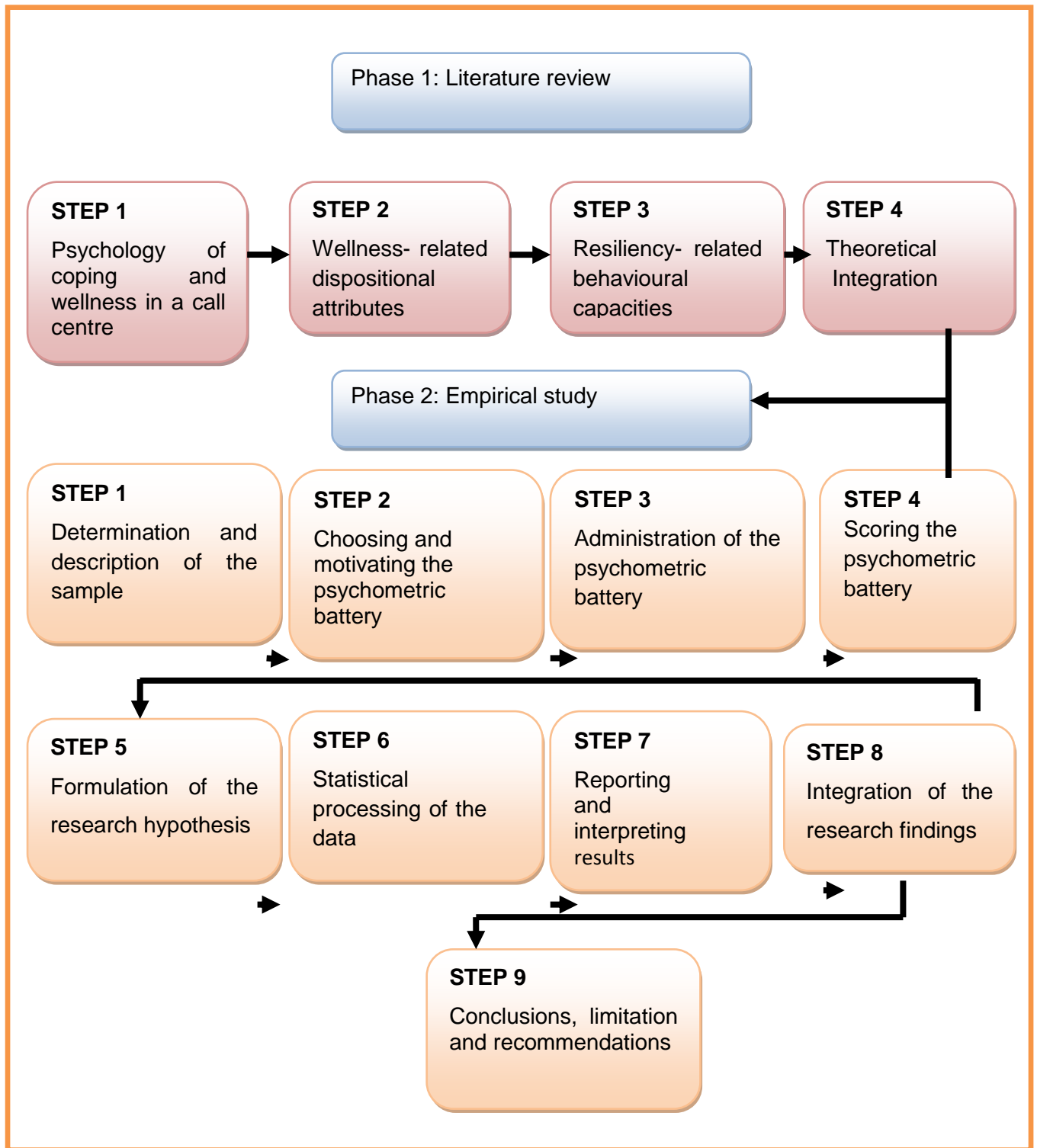


Figure 1.4: Flow diagram of research process method

1.9 CHAPTER DIVISION

The chapters will be presented in the following manner:

Chapter 2: Meta-theoretical context of the call centre work environment

Chapter 2 addresses the first literature research aim, namely, to conceptualise coping behaviour and wellness in a call centre environment within the context of the contemporary world of work. The variables influencing coping behaviour will be identified, followed by an exploration of the changing nature of careers in a call centre environment. Finally, the implications of a psychological coping profile for wellness practices in a call centre environment will be evaluated.

Chapter 3: Wellness-related dispositional attributes

The aim of this chapter is to conceptualise the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and how these constructs are conceptualised and explained by theoretical models in the literature. Finally, the implications of the wellness-related dispositional attributes for coping strategies in a call centre environment will be evaluated.

Chapter 4: Resiliency-related behavioural capacities

The aim of this chapter is to conceptualise the constructs of resiliency-related behavioural capacities (career adaptability and hardiness) and the way in which these constructs are conceptualised and explained by theoretical models in the literature. Finally, the implications of the resiliency-related behavioural capacities for coping strategies in a call centre environment are evaluated.

Integration of the literature review

The purpose of the theoretical integration of the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness) is to formulate a conceptual framework describing the theoretical relationship between these constructs. Based on the theoretical framework, a psychological profile outlining the cognitive, affective, conative and interpersonal behavioural elements comprising the wellness-related attributes and the

resiliency-related behavioural attributes will then be constructed. Finally, the implications for Industrial and Organisational Psychology practices pertaining to wellness will be highlighted.

Chapter 5: Empirical research

The purpose of this chapter is to describe the empirical research. Firstly the aims of the empirical research will be given and an overview of the study's population and sample will be presented. The measuring instruments will be discussed and the choice of each will be justified, followed by a description of data gathering and processing. Finally, the research hypotheses will be formulated.

Chapter 6: Research results

This chapter will discuss the statistical results of this study that were used to test the various research hypotheses, and will integrate the empirical research findings with the literature review. The statistical results will be reported and interpreted in terms of descriptive, common and inferential (multivariate) statistics.

Chapter 7: Conclusions, limitations and recommendations

In this, the final, chapter the results will be integrated and conclusions reached. The limitations of the study will be explained and recommendations made for the field of Industrial and Organisational Psychology, both applied and in terms of further research. Finally, the chapter will end with concluding remarks to integrate the research and an evaluation of the value added.

Research Article: A publishable research article is required as part of the thesis. The research article follows after chapter 7.

1.10 CHAPTER SUMMARY

The background to and motivation for the research, the aim of the study, the research model, the paradigm perspectives, the theoretical research, its design and methodology, the central hypothesis and the research method were all discussed in this chapter. The motivation for this study is based on the fact that no known research has been conducted on

the relationship dynamics between the constructs of sense of coherence, emotional intelligence, career adaptability, hardiness and burnout or whether the relationship dynamics between these constructs can be used to construct a psychological coping profile for call centre agents. The research sets out to evaluate critically and, based on sound research methodology, investigate the relationship dynamics between call centre agents' sense of coherence, emotional intelligence and burnout (as a composite set of wellness-related dispositions), and career adaptability and hardiness (as a composite set of resiliency-related behavioural capacities). It also intends to establish whether an overall psychological coping profile can be constructed to inform employee wellness practices in a multicultural call centre context. The research also aims to investigate whether call centre agents' biographical characteristics (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes and the resilience behavioural capacities.

The following chapter, chapter 2, addresses the first literature research aim, namely, to conceptualise coping behaviour and wellness in a call centre environment within the context of the contemporary world of work. The variables influencing coping behaviour will be identified, followed by an exploration of the changing nature of careers in a call centre environment. Finally, the implications of a psychological coping profile for wellness practices in a call centre environment will be evaluated.

CHAPTER TWO: META-THEORETICAL CONTEXT OF THE STUDY: COPING AND WELLNESS IN A CALL CENTRE ENVIRONMENT

The aim of this chapter is to put the present study into perspective by outlining the meta-theoretical context that forms the definitive boundary of the research. This chapter addresses the first literature research aim, namely, to conceptualise coping behaviour and wellness in a call centre environment within the context of the contemporary world of work. The variables influencing coping behaviour will be identified, followed by an exploration of the changing nature of careers in a call centre environment. Finally, the implications of a psychological coping profile for wellness practices in a call centre environment will be evaluated.

2.1 THE CALL CENTRE ENVIRONMENT

Research into call centre work has attracted many negative comments, such as references to them as “electronic sweatshops”, “sweatshops of the western world” and “factories of the future” (Borgogni et al., 2012; Choi, Cheong & Feinberg, 2012; Consiglio et al., 2013; Harry & Coetzee, 2011; Harry, 2011; Latif, 2010). Call centres are characterised as a work environment where the call centre agents sit all day, staring at a flickering computer screen and answering calls. This can take a major physical and emotional toll (Borgogni et al., 2012; Consiglio et al., 2013). Call centres, especially in Third World countries such as Africa, have grown tremendously (Banks & Roodt, 2011). The Inaugural Contact Centre Global Forum states that over 80% of all customer interactions happen through call centres and that the industry employs six million people worldwide (Banks & Roodt, 2011). There has been a rapid development in the telecommunications technology and many companies are today choosing call centres as their preferred form of interaction with customers (Banks & Roodt, 2011). As a result, there has been an integration of information and computer technologies in order to optimise service delivery to customers. This integration is called the “Taylorisation of white-collar work” (Choi et al., 2012; Perry et al., 2011).

“Taylorisation” refers to call centres becoming highly measured environments (Bank & Roodt, 2011). Managers can therefore now track the number of calls that call centre agents take within any given time, the speed at which calls are answered and the duration of these calls. Accordingly, call centre agents are monitored and controlled by technology, perform jobs that are typically routine and monotonous, with little opportunity for personal discretion, and which are poorly paid (Poddar & Madupalli, 2012). This has led to the call centre work

environment being referred to as Panopticon control (Choi et al., 2012; Foucault, 1997). Panopticon refers to a prison design that allowed wardens to observe and control prisoners constantly without seeing them in order to enforce a state of power (Foucault, 1997; Poddar & Madupalli, 2012). In a call centre environment agents are always visible and the supervisor's power is rendered perfect via the computer monitoring screen (Stoneback, 2012).

Many call centre managers sacrifice employee wellbeing in order to achieve efficiency (Choi et al., 2012). The call centre work environment has been likened to assembly lines, where the job could be designed as "turnover-proof" with workers as replaceable parts (Stoneback, 2012). In many studies it has been found that call centres in Africa have a historic disposition towards control and Taylorism and a production focus (Banks & Roodt, 2011). The modern call centre is a super-user of information and communications (Banks & Roodt, 2011). Stress responses, high absenteeism and high turnover are considered 'normal' occurrences in modern call centres (Banks & Roodt, 2011; Borgogni et al., 2012; Choi et al., 2012; Poddar & Madupalli, 2012).

Consequently, it would seem that it is necessary to conduct research on a psychological coping profile, as the complexities of the call centres, the variations in customer expectations and the product knowledge intricacies make the critical work of the call centre agent in a tightly constrained work environment very difficult (Choi et al., 2012). The human factor in call centres plays an important role because no technology can replace skilled communication or a problem-solving customer focus (Poddar & Madupalli, 2012).

2.2 COPING BEHAVIOUR IN A CALL CENTRE ENVIRONMENT

In studies on work-related problems across 26 occupations, six occupations were identified as highly stressful work environments (Borgogni et al., 2012; Choi et al., 2012; Ruhama, 2012). These occupations include ambulance workers, teachers, social services, customer services call centres, prison officers and police (Borgogni et al., 2012; Choi et al., 2012; Ruhama, 2012). The call centre work environment has as its main workforce typically younger people with a age group below 30 years (Latif, 2010). This environment ultimately creates physical, psychological and behavioural deviations among employees as they have to sit continuously for eight hours. Borgogni et al. (2012) have argued that external as well as internal resources are particularly likely to be found in interactionally intense settings such

as customer service work. The repetitive and sustained nature of the service interactions not only increases stress but also heightens an awareness among workers of the need for obtaining external as well as internal resources. In this type of work environment, employees are often drawn together to create informal communities of coping (Borgogni et al., 2012; Consiglio et al., 2013). Call centre employees have found various ways of dealing with the pressures of emotional labour. In general, these have been individual, covert and temporary (Borgogni et al., 2012; Consiglio et al., 2013). For example, employees have been able to identify weaknesses in the organisation's control systems and deliberately minimise their contact with irritating or offensive customers (Borgogni et al., 2012; Consiglio et al., 2013).

Call centre agents can also employ more collective methods of coping to help alleviate the tensions and pressures of work (Latif, 2010; Marx, 2011). Research indicates that these types of employee frequently draw on the internal stress resources as well as the social support of their colleagues to assert a degree of control over their working lives (Marx, 2011). One of the most common methods of coping with the emotional strains of the job is to withdraw temporarily from work through absenteeism (Consiglio et al., 2013). This can take on a collective or social dimension when workers develop a set of norms or shared expectations about the legitimacy of absence as a response to stressful work (Consiglio et al., 2012). The creation of an absence culture has been associated with socially supportive efforts of employees to cope with work demands (Consiglio et al., 2013; Perry et al., 2011). It has been suggested that certain internal resources, such as the sense of coherence, emotional intelligence, career adaptability and hardiness, can assist individuals to deal better with high job demands (Dimotakis, 2011; Savickas & Porfeli, 2012).

In the context of the present study, coping is viewed as constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person (Hack-Polay, 2012; Lazarus & Folkman, 1984; Rothmann, Jorgensen & Hill, 2011). Coping occurs once a person has weighed the demands of the situation against their resources; hence, it is linked to the process of appraisal (Akanji, 2012; Devi, 2012). The term 'effort' is important as it separates coping from adaptation (Akanji, 2012; Devi, 2012). In research conducted in a call centre by Ruhama (2012), it was found that individuals with high negativity are more likely to use behavioural disengagement and those with low negativity were less likely to vent negative emotions.

2.2.1 Appraisal and coping

The way a person perceives a situation is likely to affect the way they manage the demands (Devi, 2012). An example is considering a situation as a threat means the individual's perceived resources will be fewer as the person expects to be harmed in some way (Bhagat, Segovis & Nelson, 2012; Graham, 2013; Rothmann et al., 2011). Alternatively, considering a situation as a challenge means a person believes gains and benefits can be obtained from the situation (Bhagat et al., 2012; Rothmann et al., 2011). Figure 2.1 below provides an overview of perspectives that influence coping behaviours.

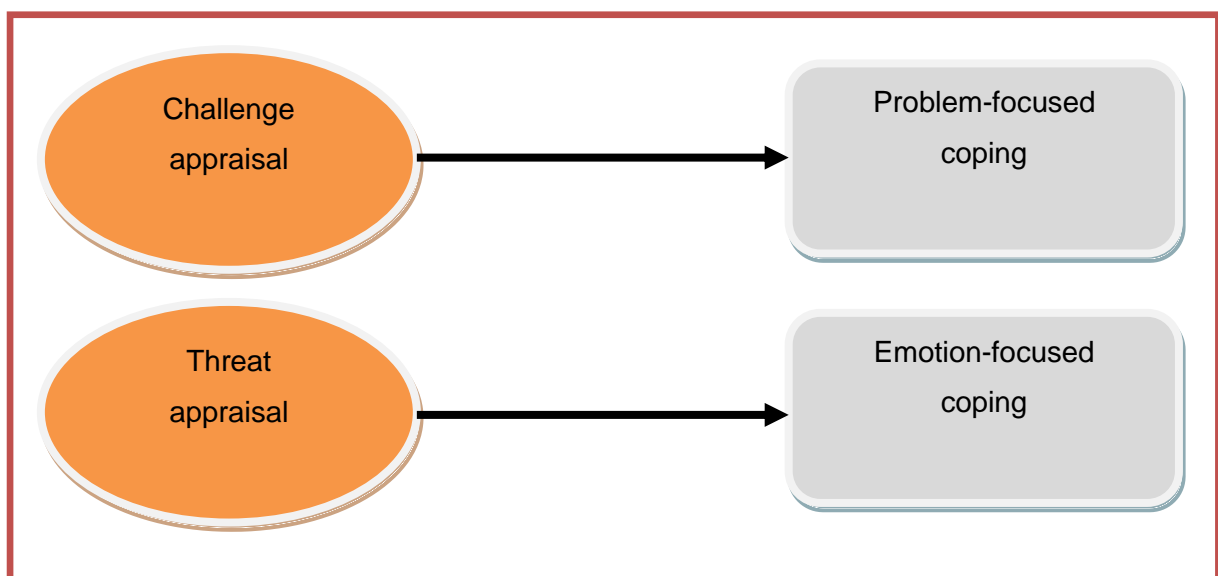


Figure 2.1: Perspectives of coping behaviours

2.2.2 Challenge appraisal and problem-focused coping

A situation that is appraised as a challenge is one in which the person believes there is a possibility of positive rewards. This makes individuals more interested and more likely to engage with the problem and actively work towards benefits (Bhagat et al., 2012). Studies have found that individuals appraise situations with the use of higher problem-focused coping and coping styles and these styles are related to psychological wellbeing (Bhagat et al., 2012; Li, Lui, Hou & Li, 2012; Rothmann et al., 2011).

2.2.3 Threat appraisal and emotion-focused coping

Threat appraisal occurs when individuals perceive that the situational demands exceed their resources to cope, thus expecting harm to occur (Akanji, 2012; Devi, 2012; Rothmann et al., 2011). In situations like this, individuals are likely to try to distance themselves from the emotions associated with stressful situations and the anticipated negative consequences (Ashkar, Penprase & Salman, 2012; Devi, 2012).

Threat appraisal has been found to be related to both emotion and avoidance forms of coping (Rothmann et al., 2011). This type of coping is thought to involve elements of blaming oneself for the situation, consequently resulting in a downward spiral comprised of disengagement and self-criticism and to further attempts to remove oneself from the situation (Rothmann et al., 2011).

Coping is relevant for subjective wellbeing, which is viewed as important in managing stress (Rothman et al., 2011). Individuals adopt avoidant strategies when they deny or pretend that stressors are not present or that they are causing significant stress (Akanji, 2012; Matias & Fontaine, 2010; Mattingly, Sexton, Edwards & Fischer, 2012). Individuals experience mental disengagement when they distract themselves from thinking about the goals with which the stressors are interfering. Behavioural disengagement takes place when individuals abandon the goal that the stressors are interfering with (Rothman, et al., 2011). Avoidance can be referred to as a third strategy that people can use to cope with stress and may include person-orientated or task-orientated strategies. Avoidance differs from problem- and emotion-focused coping in that avoiding stressful situations removes people from them, whereas problem- and emotion-focused coping help people to manage stressful situations whilst they remain in them (Akanji, 2012; Devi, 2012; Rothman et al., 2011).

According to Akanji (2012), the field of coping is broadening its scope to include positive striving emotions and searching for meaning. Research has shown that when an individual is exposed to high job demands and long working hours, some people display no symptoms of disengagement; instead they focus on finding pleasure in dealing with these stressors, using effective coping strategies. Such coping abilities can be described as the approaches or methods an individual employs in order to manage stressful situations encountered in role pressures emanating from work, family or private life (Akanji, 2012). Coping efforts can be

displayed on the behavioural, cognitive or emotional levels. Coping has been conceived in several ways (Akanji, 2012; Bhagat et al., 2012):

- as a personality trait and a situationally-determined response
- as a dynamic process and a static construct
- as a strategy that is mature, adaptive and flexible but also as a reaction that is neurotic, maladaptive and rigid
- as a global, generally dichotomous concept, but also as an intricate, hierarchically structured, multi-levelled concept.

According to Akanji (2012), the transactional stress model conceptualises stress as the imbalances between levels of demands and resource availability. In such situations, when pressure exceed an individual's perceived ability to manage, this results in reactive coping behaviours, in order to reduce or remove stressors and sees coping as the thoughts and actions that are initiated in response to a specific encounter (Devi, 2012). In line with the transactional theory, Lazarus and Folkman (1984) define coping as the efforts, both behavioural and cognitive, that people invest in order to deal with (to master, reduce and/or tolerate) stressful encounters. According to Akanji (2012) and Devi (2012), dealing with stress comprises three processes: primary appraisal, secondary appraisal and coping. Primary appraisal is the process of perceiving threats to the self. Secondary appraisal, on the other hand, refers to the perceived availability of coping resources to deal with stressful encounters.

Primary and secondary appraisals initiate coping behaviours. Devi (2012) suggests that emotion-focused coping takes place when people feel that they must somehow tolerate the source of the stress and they try to manage or reduce the emotional discomfort associated with the situation. Emotion-focused coping emphasises the interpretation of a situation or how the person attends to it. According to Akanji (2012) and Devi (2012), a problem-seeking approach occurs when efforts are geared to resolving or proactively managing the problems that are causing distress. Positive thinking suggests that people manage stressful circumstances in a mentally optimistic manner, which is more emotionally based (Kozica & Kaizer, 2012).

A third style of coping is avoidant coping, which has been integrated in a self-regulatory model of stress and coping (Akanji, 2012). However, the literature on coping often makes

another distinction between active and avoidant coping strategies (Akanji, 2012; Devi, 2012; Kozica & Kaizer, 2012). Accordingly, active coping strategies are either behavioural or psychological responses designed to change the nature of the stressors themselves or how one thinks about them. Avoidant coping strategies, on the other hand, lead people into activities (like alcohol use) or mental states (like withdrawal) that keep them from addressing stressful events directly (Akanji, 2012; Devi, 2012; Kozica & Kaizer, 2012). Generally speaking, active coping strategies, whether behavioural or emotional, are better ways of dealing with stressful events. Avoidant coping strategies seem to be psychological risk factors, or markers, for adverse responses to stressful life events (Akanji, 2012; Devi, 2012; Kozica & Kaizer, 2012). Some regard avoidant coping strategies as less adaptive.

2.2.4 Cognitive and/or rational coping

The ability to reduce stress involves the effective management of time and effort, as well as the use of a systematic approach to problem solving and thinking, through the consequences of choices and identifying important elements of problems encountered (Park & Defrank, 2010).

Many researchers also hold the view that, along with general coping skills, various personal resources mediate or even moderate stress reactions and may enhance or compromise one's immune response. Cognitive coping relates to behaviour where individuals adopt certain behaviours that alleviate stress (Latif, 2010; Park & Defrank, 2010). According to Gilbert, Miller Corollo, Hoffman, Hodge & Sweeney (2010), coping styles range from dealing with actual stressors, responding emotionally, dealing with stress or ignoring the stressors. Sense of coherence, emotional intelligence, career adaptability and hardiness are examples of such personality resources that may moderate the effects of call centre technology (since call centre work is often considered stressful). In the light of the above assumption, Ojha and Kasturi (2005) and Latif (2010), for example, advise that in identifying the personal attributes of persons, call centre managers will be able to hire potential employees who are better equipped to be effective call centre agents (Latif, 2010).

This research takes a two-pronged approach to investigating the coping behaviour of individuals. Firstly, a variable-centred approach is used to explore how a certain set of coping-related constructs manifest in the call centre environment. Secondly, it is assumed that individual call centre agents should be treated in a more holistic manner, thus allowing

the possibility that a particular set of psychological wellness-related capacities and resiliency-related dispositions (coping constructs) might be experienced differently by members of homogenous socio-demographic subgroups (age, gender, race, and marital status), and may have different implications for wellness practices in combination than they do individually. In this regard, the research also takes a person-centred approach to complement the variable-centred approach.

In the context of the present research, five constructs which relate to coping behaviour are investigated, namely, sense of coherence, emotional intelligence and burnout (wellness-related constructs), and career adaptability and hardiness (resiliency-related constructs). The next section explores these constructs briefly in a coping context. In addition, individual differences regarding these constructs are also reviewed.

2.2.5 Sense of coherence and coping

In this study sense of coherence is viewed from a salutogenic theory and stress recognition perspective. In line with salutogenic theory, Antonovsky & Sagy (1985) proposed that sense of coherence would be strengthened by cumulative life experiences, which provide a person with sets of meaningfulness experiences and coherent life experiences. These experiences are referred to as generalised resistance resources (GRRs) (Sairenchi, Haruyama, Ishikawa, Wada, Kimura & Muto, 2011). These GRRs are characterised by “participation in shaping the outcome” and “underload-overload balance” (Sairenchi et al., 2011). According to this theory, sense of coherence is comprised of three interrelated components: meaningfulness, comprehensibility and manageability. Meaningfulness is the feeling that there is meaning to life; comprehensibility is the feeling that one can recognise stress as understandable; and manageability is the feeling that one has enough resources to deal with stress. Sense of coherence is linked to wellbeing (Cilliers, 2011; Sairenchi et al., 2011). It also has stress-coping abilities in relation to stress recognition. Hence, it can be understood as representing an autonomous personal resource capable of contributing directly to subjective wellbeing (Sairenchi et al., 2011). The results of research conducted with call centre agents (Harry, 2011) revealed them as having a high sense of coherence. This was attributed to their applying personal resources to enhance their resilience in coping with stressors in the call centre environment.

2.2.6 Emotional intelligence and coping

In this study emotional intelligence relates to social intelligence, which involves the ability to monitor one's own feeling and emotions, and to use this information to guide one's thinking and actions. It also involves the ability to observe one's own emotions and the emotions of others in order to make a distinction between them (Shaemi, Allameh & Bajgera, 2011; Yu-Chi, 2011).

Emotional processes are crucial in daily functioning and tend to have an interactive effect on one another (Shaemi, Allameh & Bajgera, 2011; Yu-Chi, 2011). Emotional information can assist individuals in understanding their reactions to different stressors, which can then adaptively guide them in the coping process (Shaemi et al., 2011; Yu-Chi, 2011). Affective material may serve as important cues for individuals to note that a problem exists, and can provide information in regard to progress towards the problem-solving goal (Shaemi et al., 2011; Yu-Chi, 2011). Individuals' ability to effectively confront and cope with a problem depends upon their ability to regulate their emotions (Shaemi et al., 2011; Yu-Chi, 2011). Greater emotional intelligence is associated with higher levels of effective problem solving, such as allowing individuals to create a multitude of problem-solving perspectives (Shaemi et al., 2011; Yu-Chi, 2011). In addition, individuals who demonstrate high emotional intelligence seem to be more adept at stress management and decision making and have faster mood recovery after disturbing and stressful experiences (Shaemi et al., 2011; Yu-Chi, 2011). Individuals who are unclear about their emotions and who also participate in high levels of problem-focused coping have been found to experience negative distress outcomes (Baker & Berenbaum, 2007). Engaging too quickly in a particular problem-focused coping strategy because one has not used information from one's emotional cues and reactions can have detrimental effects. Having increased emotional intelligence affords individuals more resources in allowing them to use the most adaptive problem-solving coping strategy for that particular situation (Shaemi et al., 2011; Yu-Chi, 2011). According to research conducted by Gryn (2010), higher emotional intelligence in terms of managing one's emotions contributes to job performance in a call centre environment.

2.2.7 Burnout and coping

In this study burnout relates to occupational stress that results from demanding and emotionally charged relationships (Lee & Choi, 2010). When individuals experience stress

over time without relief, they are predisposed to burnout; consequently, individuals would be less inclined to burnout if they had more positive coping behaviour to deal with stress. If an individual can cope with stress by displaying more positive behaviours and fewer negative behaviours, this may result in them not being easily disposed to burnout (De Lange, Dikess & Demerouti, 2010; Jordan, Blumenshine, Bertone & Heinrich, 2010; Lee & Choi, 2010). Jordan et al. (2010) state that professionals who experience burnout are unable to cope effectively with stress. At the same time, they are also unable to eliminate or avoid stress. Individuals who experience prolonged and continual exposure to stressors and who lack of adequate coping strategies may succumb to a state of physical, emotional and mental exhaustion, known as burnout (De Lange et al., 2010; Jordan et al., 2010; Lee & Choi, 2010).

The high rate of burnout in a variety of professions has been associated with withdrawal coping strategies such as getting away from people, while low burnout has been associated with social coping strategies such as talking with others (De Lange et al., 2010; Jordan et al., 2010; Lee & Choi, 2010). Direct and palliative coping styles may play an important role in burnout. A direct coping style is described as problem-solving behaviour manifested in rational and task-oriented strategies, whereas a palliative coping style is described as dealing with emotional distress using strategies such as ignoring the situation (De Lange et al., 2010; Jordan et al., 2010; Lee & Choi, 2010). The use of a direct coping style has been associated with downward identification and with increased burnout over time (De Lange et al., 2010; Jordan et al., 2010; Lee & Choi, 2010). According to research conducted by Harry and Coetzee (2011), call centre agents experience high levels of burnout, which results in low work engagement; however, having a stronger sense of coherence helps to increase their engagement.

2.2.8 Career adaptability and coping

Career adaptability is related to individuals' concerns about their future as employees and displaying proactive curiosity into exploring possible selves and future scenarios (Ferreira, 2012). Savickas and Porfeli (2012) suggest that career adaptability could be operationalised by using the developmental dimensions of self and environmental exploration, career planning and decision making, all of which could also be conceptualised as self-regulatory strategies. In this way, an individual's self-development and career adaptability includes looking around at the opportunities available (exploring), looking ahead to the future

(planning), making suitable and viable choices (deciding), and managing all of the intrapersonal, interpersonal and environmental factors that impinge on achieving one's goals; in sum, self-regulating (Ferreira, 2012). Self-regulatory mechanisms are relevant to career adaptability as they are activated in times of stress or change, or when confronted with novel challenges. Environmental exploration involves gathering information relevant to career development, whereas self-exploration focuses on exploring personal interests, experiences and values in order to better understand the self in the career world. Such exploratory strategies and skills equip individuals to negotiate changes in the career and life domains effectively (Ferreira, 2012). Career planning involves a future orientation and knowledge of what actions are required in order to pursue one's goals (Savickas & Porfeli, 2012). Career adaptability and self-exploration and career planning are lifelong activities especially salient for career transitions, and can be characterised as adaptive processes (Savickas & Porfeli, 2012). Decision making involves evaluating knowledge and alternatives that support the outcomes that individuals feel they can commit to (Savickas & Porfeli, 2012).

There is a paucity of research on the career adaptability of call centre agents. According to Savickas and Porfeli (2012), adaptability is the coping responses of the behaviours necessary for an individual to handle the career change tasks he or she may be faced with. Research conducted by Ferreira (2012) reveals that adaptability can be regarded as an individual's broad ability to adjust to change, especially in unpredictable situations. The call centre environment is regarded as a context for career development. However, the high stress nature of a call centre environment may negatively influence people's career development and job/career satisfaction. High stress does lower career wellbeing, when individuals are confronted with a work environment in which boredom arises from repetition and monotony (Choi et al., 2012). There is very little career progression in a call centre and many call centre agents experience low levels of career orientation satisfaction. Accordingly, career adaptability is an important construct to consider in terms of coping behaviour because it relates to call centre agents' resiliency and career satisfaction. The presence of coping resources reduces distress and preserves people's psychological and social equilibrium (Coetzee & Esterhuizen, 2010).

2.2.9 Hardiness and coping

In this study hardiness is viewed as having a positive influence on health and wellbeing. Hardiness influences the relationship between stressors and strain primarily through its effects on appraisal and the coping process (Ferreira, 2012). The coping style that is commonly associated with hardiness is that of transformational coping, an optimistic style of coping that transforms stressful events into less stressful ones (Ferreira, 2012; Latif, 2010). At the cognitive level this involves placing the event into a broader perspective in which it does not seem so terrible after all (Ferreira, 2012; Kobasa, 1982; Latif, 2010). In terms of action, individuals high in hardiness are believed to react to stressful events by increasing their interaction with them, trying to turn them into an advantage and an opportunity for growth; thus in the process achieving some greater understanding (Ferreira, 2012; Kobasa, 1982). In support of this notion, studies by Latif (2010) have demonstrated that the effects of hardiness on symptoms of illness are partly mediated through the positive relation of hardiness to presumed beneficial coping styles and the negative relation to presumed harmful styles of coping. A hardy-resilient style is a generalised mode of functioning that includes a strong sense of commitment, a belief that one can control or at least influence outcomes, an adventurous, exploring approach to living (challenge), and a future orientation (Latif, 2010). The person with a hardy-resilient style has a strong future orientation, that is, a tendency to look to the future while at the same time learning from the past (Ferreira, 2012; Latif, 2010).

A hardy-resilient style is shown by being courageous in the face of new experiences as well as disappointments, being action-oriented, competent and having a sense of humour (Ferreira, 2012). Many studies have found that people high in hardiness are more resistant to the ill-effects of extreme stress (Latif, 2010). Persons with high levels of hardiness are not impervious to the ill-effects of stress, but do not show the same level of symptoms and performance decrements as persons with low levels under stressful conditions (Latif, 2010). Hardiness serves as a resistance resource when encountering stressful situations. Evidence suggests that hardiness positively influences perceptions of stressful life events (Ferreira, 2012; Latif, 2010). It has a beneficial relationship with self-ratings of physical health and physical symptoms, as well as with depression and anxiety and mental health (Latif, 2010). Coping style refers to an individual's preferred behavioural and cognitive responses to stressful situations that remain stable across time and circumstances. For example,

approach-oriented coping styles have been associated with less global stress, and beneficially related to physical health indicators, such as illness time loss, and indicators of mental health, such as anxiety, depression and psychological distress (Latif, 2010).

According to research conducted by Latif (2010), call centre agents scored relatively high in hardiness. This suggests that call centre agents feel a sense of commitment and a sense of control. This could contribute to call centre agents feeling a sense of purpose and expressing it by becoming involved in life's events rather than running away from them.

The call centre environment is regarded as a negative context for career development. The high stress nature of a call centre environment may negatively influence people's career development and job/career satisfaction, as it is a challenging environment that requires hardiness. According to Ferreira (2012) and Schreuder and Coetzee (2011), an employee's subjective career success is related to their sense of wellbeing at work. In order for individuals to survive in a changing and challenging environment, organisations need employees who are in good mental health (Ferreira, 2012). Hardiness has a protective, as well as a moderating, effect on stress that forms part of employees' wellbeing (Kobasa, 1979). Hardy individuals have a clear sense of direction, a dynamic approach to demanding situations and a sense of self-belief that control the threats or dangers that are inherent in career uncertainty (Schreuder & Coetzee, 2011). As in the case of career adaptability, hardiness is an important construct to consider in terms of coping behaviour because it relates to call centre agents' resiliency and career satisfaction (Ferreira, 2012; Latif, 2010).

2.3 INDIVIDUAL DIFFERENCES AND COPING

According to Park and Defrank (2010), not all people who are subject to particular stressors react in the same way. Certain stressors that effect individuals will depend on their physiological, psychological and social disposition (Akanji, 2012; Li, Lui, Hou & Li, 2012).

This research focuses on individual characteristics, such as age, gender, race and marital status. These are explored in the next section.

2.3.1 Age

Little research has been conducted on life-stage career problems and coping (Akanji, 2012; Devi, 2012; Li et al., 2012). From a career development point of view each life stage presents different stressors with varying development of coping resources (Akanji, 2012; Devi, 2012; Li et al., 2012). As age increases there is a decrease in stress and conflict over role demands, which can be attributed to a shift in coping skills as individuals mature (Akanji, 2012; Devi, 2012; Li et al., 2012). It was therefore concluded that given equal amounts of stress, strain varies as a function of coping resources (Akanji, 2012; Devi, 2012; Li et al., 2012).

For younger individuals, psychological and interpersonal strains may be most significant, while older individuals appear to suffer less strain (Akanji, 2012; Devi, 2012; Li et al., 2012). It appears that older individuals had developed more coping resources than their younger counterparts (Akanji, 2012; Devi, 2012; Li et al., 2012). Chronological age is related to the type of stressors individuals are exposed to while physiological age is related to the outcome and consequences of exposure to the stressors (Akanji, 2012; Devi, 2012; Li et al., 2012).

According to Latif (2010), the majority of call centres are dominated by employees who are below the age of thirty and educated and who find call centre work routine and less challenging. Call centres tend to put the burden of high performance on young people who possess high education but accept low salaries. In terms of coping, individuals in a call centre do not feel a sense of challenge, which suggests that these agents may be comfortable with some degree of routine-based work (Latif, 2010).

2.3.2 Gender

Coping is viewed as the things people do to avoid being hurt by life's stressors. With regard to gender, women display more symptoms of strain and health-related behaviours which require visits to the doctor or psychologist, whereas men are more likely to die of alcohol-related diseases (Baltes, Zhdanova & Clark, 2011; Devi, 2012; Kirk, Schutte & Hine, 2011). According to research conducted by Harry and Coetzee (2011) and Harry (2011), women tend to experience higher stress levels than men.

2.3.3 Race

According to research on Thai working mothers studying part time, many mothers experience exhaustion while completing their studies in this way (Thinnam, 2011). However, research reveals that they have high coping strategies, which include accepting the situation, using direct action to solve the problem and seeking help (Thinnam, 2011).

2.3.4 Marital status

People who have families tend to cope better than those who do not have families (Baltes et al., 2011). Research conducted by Matias and Fontaine (2010) reveals that families tend to rely on familial coping strategies and resources in order to manage their multiple responsibilities and have acquired better coping skills than individuals who do not have families.

2.4 CHANGING NATURE OF CAREERS IN A CALL CENTRE ENVIRONMENT

Today many careers are becoming multidirectional and boundaryless (Ferreira, 2012). Various changes have been noted in the world of work (Ferreira, 2012; Lent, 2013), with a decrease in the stability and security of careers being the most important change in the 21st century. This has affected career development in a call centre as such careers are largely characterised as being protean and boundaryless. Careers that are viewed as protean and boundaryless is when the career agent controls his or her own destiny in engaging in frequent change, self-inventions, autonomy and self-directedness with the core aim of achieving psychological success (Ferreira, 2012). Changes to employment structures and job tenure suggest that call centres may be a typical example of such new career forms (Choi et al., 2012).

Careers can be defined as individually perceived sequences of attitudes and behaviours associated with work-related experiences and activities over the span of a person's life (Ferreira, 2012; Lent, 2013; Savickas & Porfeli, 2012). This definition emphasises the fact that career wellbeing and satisfaction depend on the person and his/her interaction with the environment in which the career is being pursued (Lent, 2013).

Today individuals have the opportunity to exercise more choices than ever before, which in turn creates a multitude of new opportunities (Ferreira, 2012; Lent, 2013). The world of work

had now become fast paced, more diverse and less predictable for more and more workers (Lent, 2013). Broadly speaking individuals now have to decide between two options, that is, to take the traditional route and existing paths or they can choose the contemporary path, according to which individuals are choosing to engage with many organisations and in many careers before they retire (Ferreira, 2012, Lent, 2013). A new brand of worker, a new brand of enterprise and a very new social contract are currently evolving (Ferreira, 2012; Lent, 2013; Savickas & Porfeli, 2012).

Table 2.1: *Typical Contrasts in Changing Relationships*

Loyalty	
The career agent is loyal and committed	There is finally no more loyalty left
Employability	
Purely a 'fad' which will pass in time	It is a key component
Job security	
Organisations provide job security	Security is no more
Career responsibility	
The organisation is responsible	The career agent is responsible
Commitment	
Career agents are committed to business objectives	No more commitment left

Source: Buchner (2007, p. 58)

From the table above, it would seem that uncertainty and ambiguity are becoming apparent (Lent, 2013). In addition, employability (not job security) and personal responsibility underlie most of the emerging new relationships to the employment market (Lent, 2013). According to Ferreira (2012), it is evident that, from an individual's perspective, there is a shift from the organisational career towards the protean career which reflects the characteristics summarised in Table 2.2:

Table 2.2: *The Characteristics of a Protean Career*

CHARACTERISTICS OF PROTEAN CAREER
The person and not the organisation manages the career.
A career is a lifelong series of experiences, skills, learning, transitions and identity changes where 'career age' counts and not chronological age.
Development involves continuous learning, is self-directed and relational and is embedded in work 'challenges'.
Development does not necessarily include formal training, retraining or upward mobility.
Success depends on moving from know-how to 'learn-how', job security to employability, organisational careers to protean careers, and from work-self to whole-self.
The organisation provides challenging assignments, developmental relationships, information and other developmental resources.
The ultimate goal is psychological success.

The individual contributes their part to their job and the organisation provides resources and opportunities for continuous learning. The emphasis on the protean contract means that the individual adapts in order to obtain personal psychological success rather than organisationally defined success (Lent, 2013). When individuals shift towards a new 'idea', this demonstrates that the individual is taking responsibility for their own career, which defines success as an inner feeling of achievement. The psychological contract stipulates that the individual no longer defines himself in terms of the organisation, but rather as taking greater control of his own career development (Lent, 2013).

Since call centres are 'flat' organisations, vocational development is rare and generally consists of considerable horizontal movement. Upward career movement is seen as an organisational resource that acts as a buffer against the development of stress (Choi et al., 2012). A lack of upward career movement is a predictor of emotional exhaustion and, if it is perceived as being present in organisations, it will be associated with higher levels of burnout (Choi, et al., 2012; Perry et al., 2011). When people experience greater upward career movement relative to their peers, it may serve as a form of feedback indicating that they are making a positive contribution to the organisation in the form of valued accomplishments. Promotions are also associated with reduced client contact, which removes one of the necessary conditions for the development of emotional exhaustion by reducing lack of skill variety. Call centre jobs are often compared to factory jobs or assembly lines based on the Tayloristic principles of job design (Borgogni et al., 2012; Choi et al.,

2012; Perry et al., 2011). Such jobs can be highly routinised, with a lack of skill variety designed into the work. The work is often perceived as repetitive in nature: agents do the same thing over and over again. The characteristics of the work that contribute to the assembly line perception are that conversations are forced to be brief and routinised because of being scripted and controlled, the work is often viewed as unskilled work because it involves a low level of complexity, customer service representatives have no opportunity to use their skills and abilities and the division of labour only allows a customer service representative to do a small part of the work before it is passed on to the back office where specialists deal with the queries (Choi et al., 2012). Experienced monotony is one of the most frequently cited reasons when employees resign (Borgogni et al., 2011; Choi et al., 2012; Consiglio, et al., 2013; Perry & Rubino, 2011; Poddar & Madupalli, 2012). Research has indicated that a lack of complexity and low use of qualifications and skills are related to low levels of affective commitment, while experienced monotony, low variety and low levels of complexity predict employees' intentions to quit (Choi et al., 2012).

Call centres have changed and an evolution is taking place. Accordingly, they have become a profit organisation and are seen as an organisation where the needs of the client become important. Therefore call centre agents are required to possess communication skills (Choi et al., 2012). However, much stress arises from the boredom and repetition of the work. Since call centres are somewhat flat organisations, career progression takes place through horizontal movement from one call centre to another (Choi et al., 2012).

Given the above, it would seem that call centre employees' attachment both to the organisation and to call centre work would be low. The loose ties associated with employment relationships in the newer service industries such as call centres are hardly recognisable in the traditional career paths established, either by the organisation, the industry or the profession (Choi et al., 2012). Literature on the boundaryless career tends to focus on entrepreneurs and professionals. According to research by Choi et al. (2012), the emphasis is on how contingent workers perceive their own career transitions and attachments to their organisations. In such work the possibilities for intrinsic reward derived from the experience of valued work and a sense of achievement, contributing toward greater career involvement, are likely to be more limited than in managerial or professional employment contexts. Therefore, one would expect relatively low levels of career orientation satisfaction and commitment to both organisations and occupations and a more instrumental orientation in terms of work preferences (Choi et al., 2012).

Given the above scenario many individuals in call centres are taking the contemporary path, where individuals are choosing to engage with many organisations before they retire (Choi et al., 2012).

2.5 IMPLICATIONS FOR EMPLOYEE WELLNESS INTERVENTIONS

The call centre environment has proven to be a highly stressed work environment. Not only has it been given negative names such as electronic sweatshops, factories of the future, as outlined in this research, it has also led to the organisation experiencing the effects of high stress, namely, absenteeism, turnover, low commitment and lack of attachment to the organisation (Latif, 2010). Employee wellness has been defined as being a way of life oriented toward optimal health and wellbeing in which the body, mind and spirit are integrated by the individual to live more fully within the human and the natural community (Sieberhagen et al., 2011).

It is an established notion that wellness is more of a psychological than a physical state (Sieberhagen et al., 2011). Employee wellness is linked to coping (Devi, 2012). By researching the relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities, insight can be added to what constitutes a psychological coping profile. Research has shown that workplace stress affects health and wellness in a number of ways. For example, organisations experience the effects of these symptoms in the form of absence from work, high employee turnover and low productivity (Brand-Labuschange, Mostert & Rothmann, 2012; Sieberhagen et al., 2011). There is a need for research into the wellness and coping of call centre agents which must be given equal importance with those studies involving leadership, motivation and attitude (Harry, 2011). In general, organisations are becoming aware of issues relating to employee wellness or wellbeing (Cilliers, 2011). Occupational wellness is characterised as the level of satisfaction and enrichment gained by one's work and the extent one's occupation allows for the expression of values (Brand et al., 2012; Cilliers, 2011; Latif, 2010; Sieberhagen et al., 2011). Occupational wellness consists of one's attitude to work and the amount of personal satisfaction and enrichment gained from the work (Sieberhagen et al., 2011). Accordingly, there is increased interest by organisations in the integration of wellness activities with employers' responsibilities (Sieberhagen et al., 2011). This move towards a healthy workplace and empowered employees is underlined by trends in the study of the relationship

between positive psychological states and organisational wellbeing (Cilliers, 2011; Sieberhagen et al., 2011). These positive psychological states can be described by the constructs of sense of coherence, emotional intelligence, career adaptability and hardiness.

Positive psychological states include emotional wellness, which is conceptualised as awareness and the control of feelings, as well as a realistic, positive and developmental view of the self, conflict and life circumstances, coping with stress, and the maintenance of fulfilling relationships with others (Cilliers, 2011; Sieberhagen et al., 2011). Emotional wellness is seen as being a continual process that includes an awareness and management of feelings, and a positive view of the self, the world and relationships (Sieberhagen et al., 2011). Emotional wellness includes experiencing satisfaction, curiosity and enjoyment in life, as well as having a positive anticipation of the future, or an optimistic outlook. This involves the fulfilment of basic psychological needs, such as autonomy, competence, and relatedness resulting in psychological growth (e.g. intrinsic motivation), integrity (e.g. internalisation and assimilation of cultural practices) and wellbeing (e.g. life satisfaction and psychological health), as well as experiencing vitality and self-congruence (Cilliers, 2011; Sieberhagen et al., 2011).

Wellness interventions help promote wellbeing in employees. Therefore the purpose of these interventions is to create an awareness of wellness issues, to facilitate change and to promote a supportive workplace. Wellness interventions increase mental wellness, energy, resilience, life and job satisfaction while also reducing stress and depression (Cilliers, 2011; Sieberhagen et al., 2011). Wellness in employees can influence the wellness of an organisation and vice versa (Cilliers, 2011; Sieberhagen et al., 2011).

The modern organisation places great emphasis on the management of human capital. Positive psychology is a more modern and effective approach to this, as it focuses on human strengths (Mendes & Stander, 2011). A positive organisation focuses on the dynamics within the organisation that lead to the development of human strength, foster vitality and flourishing employees, make possible resilience and restoration, and cultivate extraordinary individual and organisational performance (Mendes & Stander, 2011). Therefore, a positive organisation focuses on enhancing, predicting and utilising positive affective exertions in general and on the various underlying constructs of these positive psychological states such as hope, happiness, resilience and meaning of work that it is comprised of. The purpose of this is to enhance performance, increase commitment and promote wellness in organisations

(Cilliers, 2011; Sieberhagen et al., 2011). The effective application of positive psychological traits, states and behaviours of employees through the utilisation of human resource strengths and psychological capacities, is aimed at improving organisational performance. These interventions can increase the psychological wellbeing and motivation that result in positive organisations by encouraging employees to be proactive, show responsibility and innovation for their own personal development. In turn, organisations can focus on the strengths and needs of their employees (Cilliers, 2011; Sieberhagen et al., 2011).

2.6 SUMMARY

Chapter 2 the first literature research aim was addressed, namely, to conceptualise coping behaviour and wellness in a call centre environment within the context of the contemporary world of work. The variables influencing coping behaviour were identified and the changing nature of careers in a call centre environment was explored. Finally, the implications of a psychological coping profile for wellness practices in a call centre work environment were evaluated.

Chapter 3 part of the second research aim will be addressed, namely, to conceptualise the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) by means of a review of theoretical models in the research literature. The implications of the wellness-related dispositional attributes for coping strategies in a call centre environment will also be discussed.

CHAPTER THREE: WELLNESS- RELATED DISPOSITIONAL ATTRIBUTES

This chapter addresses part of the second literature research aim, namely, to conceptualise the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and to examine the way these are conceptualised and explained by theoretical models in the literature. Finally, the implications of these wellness-related dispositional attributes for coping and wellness strategies in a call centre environment are assessed.

3.1 CONCEPTUALISATION OF WELLNESS-RELATED DISPOSITIONAL ATTRIBUTES

This research focuses on the wellness of call centre agents. Wellness relates to the psychological wellbeing of individuals (Sieberhagen et al., 2011). Psychosocial flourishing is based on psychological and social wellbeing (Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi & Biswas-Diener, 2010). According to Diener et al. (2010), there are several psychological needs. These include the need for competence which relates to which individuals' have a need to feel confident, the need for relatedness is to foster wellbeing and a need to have human connections that are close and secure, whilst respecting autonomy and facilitating competence and lastly the need for self-acceptance where individuals have a positive self evaluation of oneself and one's life.

This research focuses on a set of constructs that have been related to the wellness (psychological wellbeing) of individuals. These include individuals' sense of coherence, emotional intelligence and burnout. Sense of coherence and emotional intelligence have a positive effect on individuals' psychological wellbeing (Harry, 2011; Latif, 2010), while burnout negatively influences their wellbeing, especially when individuals work under controlled and emotionally demanding conditions that lead to increased levels of burnout (De Lange et al., 2010; Jordan et al., 2010). According to Choi (2010), burnout is a specific kind of occupational stress that results from demanding relationships.

3.1.1 Conceptualisation of sense of coherence

The movement towards a positive psychological approach, away from the pathogenic paradigm, led to the development of the sense-of-coherence (SOC) construct by Antonovsky

(1987). Antonovsky and Loye (2000) hold that humans are able to make sense of their reality despite the increased complexity that they experience. Antonovsky (1987) postulates that sense of coherence is the particular way in which individuals appraise or understand their environment and which allows them to make sense of complex environments (Torp, Hagen & Vinje, 2010). Sense of coherence is conceptualised as a psychological, global orientation that influences the way in which individuals understand their environments; it can therefore give rise to individual differences in behaviour (Torp et al., 2010). Sense of coherence is referred to as a psychological personality trait, where individuals view the world as coherent and predictable. It is derived from the extent to which a person experiences evenness of stimuli intensity, a firm heading towards personal objectives with both an underload and an overload of stress (Bezuidenhout & Cilliers, 2010; Cilliers, 2011; 1987; Sairenchi et al., 2011; Torp et al., 2010).

Antonovsky (1987) focused on the factors that could describe the ability to manage tension. These factors were described by the concept of generalised resistance resources (GRRs), defined as money, ego strength, cultural stability, social support and the like (any phenomenon that is effective in combating a wide variety of stressors). According to Reeves and Henning (2010), sense of coherence is viewed as a person's global orientation to life and has been shown to buffer the relationship between stressful work characteristics and mental health. Sense of coherence is also viewed as a global orientation to the extent where one has a pervasive, enduring and dynamic feeling of coherence (Koen et al., 2011).

3.1.2 Conceptualisation of emotional intelligence

Peter Salovey and John Mayer (1990) defined emotional intelligence as the form of intelligence that involves the ability to monitor one's own and others' thinking and emotions and to discriminate among them and use the information to guide thinking. It also entails having the ability to perceive the emotions to facilitate thoughts, understand the emotions and to regulate these emotions for personal growth. Emotional intelligence is concerned with understanding oneself and others, relating to people, and adapting to and coping with the immediate surroundings so as to be more successful in dealing with environmental demands (Gunavathy & Ayswarya, 2012; Van Zyl & De Bruin, 2012).

Emotional intelligence forms an integral part of positive psychology as it has a significant impact on human performance, happiness, wellbeing and the quest for meaning in life, all of

which are the focus of interest in positive psychology (Devonish & Greenidge, 2010; Rangriz & Mehrabi, 2010; Shaemi et al., 2011; Van Zyl & De Bruin, 2012).

According to Shaemi et al. (2011), emotional intelligence is considered as individuals' evaluating ability, expressing and controlling their own affection and others to efficiently utilise it. If a job is more complex, the emotional skills let an individual think better under difficult conditions and prevent wasting time by means of feelings like anger, anxiety and fear. Individuals with higher emotional intelligence are able to compromise and solve problems successfully.

3.1.3 Conceptualisation of burnout

Burnout is a state of crisis in one's relationship with work and people at work. It consists of three dimensions, namely, exhaustion, which is emotional and physical overextension and the inability to recover fully; personal depersonalisation, in which an individual adopts a cold and distant attitude towards work and people at work; and reduced personal accomplishment, where work tasks feel overwhelming and what is actually being achieved seems insignificant (Hopkins & Gardner, 2012; Hultell & Gustavsson, 2011). Exhaustion and depersonalisation are considered the core of burnout. Recent studies suggest another dimension, referred to as a cognitive weariness, which focuses on the cognitive aspects such as concentration difficulties and impairment in thinking processes. Recent research revealed that the scope of burnout has widened and now focuses on positive job-related outcomes (Hultell & Gustavsson, 2011).

Burnout in this study is conceptualised as a psychological syndrome in response to chronic interpersonal stressors on the job (Yürür & Sarikaya, 2012). The two key dimensions of this syndrome are an overwhelming exhaustion and feelings of mental distance. Exhaustion is the central quality of burnout and the most obvious manifestation of this complex syndrome (Yürür & Sarikaya, 2012). Burnout refers to individuals who are emotionally exhausted as a result of depleted resources. The energy individuals once had has been depleted, leaving individuals without resources; such individuals feel they lack adaptive resources (Yürür & Sarikaya, 2012)

According to research by Yürür and Sarikaya (2012), social support from a supervisor has more impact on an employee's wellbeing than that from co-workers. In a work environment

social support may reduce the likelihood of burnout. It may also have an overall beneficial effect which protects a person from adverse effects (Yürür & Sarikaya, 2012).

Table 3.1 In the definition of wellness in relation to the wellness-related dispositional constructs of sense of coherence, emotional intelligence and burnout is summarised.

Table 3.1: *Summary of Wellness –Related Dispositional Constructs*

Wellness-related dispositional attributes	Core definition	Definition of wellness
Sense of coherence	Viewed as a psychological, global orientation that influences the way in which individuals understand their environments; it can therefore give rise to individual differences in behaviour.	Making cognitive sense of the workplace (comprehensibility), perceiving their work as consisting of experiences that are bearable (manageability), making emotional and motivational sense of work demands (meaningfulness) (Antonovsky, 1987).
Emotional Intelligence	The form of intelligence that involves the ability to monitor one's own and others' thinking and emotions and to discriminate among them and use the information to guide own thinking.	Perceiving and expressing emotion accurately and actively, the ability to understand emotion and emotional knowledge, the ability to use feelings to facilitate thought, intellectual growth and problem-solving, the ability to regulate emotions in oneself and in others (Mayer & Salovey (1997).
Burnout	Psychological syndrome in response to interpersonal stressors on the job.	A direct style of coping which is described as problem-solving behaviour to reduce burnout symptoms (Maslach, 1982).

3.2 THEORETICAL MODELS OF WELLNESS-RELATED DISPOSITIONAL ATTRIBUTES

Sense of coherence will be conceptualised in terms of the salutogenic theory (Antonovsky, 1987), while emotional intelligence will be conceptualised in terms of the Mayer and Salovey model (1997), Goleman's emotional intelligence competencies model (2001) and Bar-On's mixed model (2002). Burnout, on the other hand, will be conceptualised in terms of the conservation of resources model (Hobfoll & Shirom, 1993), and job demands and resources model (Demerouti, Bakker, Nachreiner & Schaufeli, 2001).

3.2.1 The components of sense of coherence

The components of sense of coherence, namely comprehensibility, manageability and meaningfulness will be discussed in this section. These components are important for this research as they add insight into an individual's coping.

3.2.1.1 Comprehensibility

Comprehensibility is a well-defined dimension in terms of which individuals perceive stimuli from the internal and external world as information that is ordered, consistent, structured and clear. Individuals view these stimuli as comprehensible and as events that makes sense on a cognitive level (Sairenchi et al., 2011). Comprehensibility is described as the extent to which one perceives confronted stimuli as making cognitive sense as information that is ordered, consistent, structured and clear, rather than as chaotic, disordered, random, accidental, or inexplicable "noise" (Antonovsky, 1979; Sairenchi et al., 2011). A high sense of comprehensibility is when a person expects that the stimuli met in the future will be predictable, or that when they do come as surprises, they will be ordered and explicable (Sairenchi et al., 2011).

3.2.1.2 Manageability

In terms of manageability, individuals feel that they are able to cope with difficult situations and display a strong sense of coherence. Individuals obtain the resources that are necessary and available to meet the demands posed by these stimuli. Such resources are generally under one's control or can be, for example, friends or one's spouse (Sairenchi et al., 2011). Manageability is described as the extent to which one perceives the resources adequate to meet the demands posed by the stimuli that bombard one. A high degree of manageability would mean that one will not feel victimised or that life is unfair, but rather feel able to cope without grieving endlessly (Sairenchi et al., 2011).

3.2.1.3 *Meaningfulness*

When demands are worthy of investment, this is referred to as meaningfulness; that is, when an individual is able to emotionally identify and commit effort in handling these demands (Sairenchi et al., 2011). Meaningfulness is described as the extent to which life makes sense and that at least some of the problems and demands posed by living are worth the investment of energy. A high degree of meaningfulness will make challenges welcome rather than a burden that one would very much prefer to be without. When unhappy experiences occur, one will be determined to seek meaning in them and do the best to overcome them (Sairenchi et al., 2011).

According to Sairenchi et al. (2011), research has shown that a strong sense of coherence is related to a lower rating of stress, less emotional distress and a lower level of anxiety. According to Cilliers (2011), research into positive psychology leadership reveals that most leaders have increased levels of comprehension and experience work as structured, predictable and explicable.

3.2.1.4 *Theoretical foundations of sense of coherence*

Integral to Antonovsky's (1987) theory is the generalised resistance resources (GRRs) and the stressors, which he termed the "generalised resistance deficits".

(i) *Generalised resistance resources*

The generalised resistance resources determine the position a person occupies on the health 'ease–disease' continuum. GRRs are characteristics which help one to cope with, avoid or combat the stressors of human existence for instance to interpret the environmental stimuli one is bombarded with information (Bezuidenhout & Cilliers, 2010). The GRRs provide individuals with life experiences that are characterised by consistency, a balance of stimuli and participation in determining outcomes. They foster experiences which help one to make sense cognitively of the world (Antonovsky, 1979; Bezuidenhout & Cilliers, 2010).

The regular experiencing of the availability and use of the GRRs facilitates coping with complex life stressors and moving towards the health side of the ease–disease continuum. These GRRs play a facilitative role through the repetitive experience of making sense of the constant bombardment of stressors. The avoidance or overcoming of stressors reinforces

sense of coherence making it stronger, which affects the overall quality of a person's perception of stimuli (Antonovsky, 1987; 1991; Bezuidenhout & Cilliers, 2010; Cilliers, 2011).

(ii) *Generalised resistance resources and resistance deficits (GRR)*

The major psychological GRR resistance deficits are conceptualised as a unified concept (Bezuidenhout & Cilliers, 2010). Antonovsky (1987) believe that just as wealth, ego strength and cultural stability can be ranked on a continuum, so can stressors (Bezuidenhout & Cilliers, 2010). Stressors which are unsuccessfully confronted lead to breakdown and introduce entropy into the system, which can be described as a life experience characterised by inconsistency, under- or overload and exclusion from participation in decision making (Bezuidenhout & Cilliers, 2010; Cilliers, 2011).

3.2.1.5 *The aetiology of sense of coherence*

There are various reasons why individuals develop a strong sense of coherence. These are the developmental and general life experiences, as well as the sources of sense of coherence. The figure 3.1 illustrates the aetiology of sense of coherence in terms of the development experiences, general life experiences and the sources of SOC-enhancing experiences.

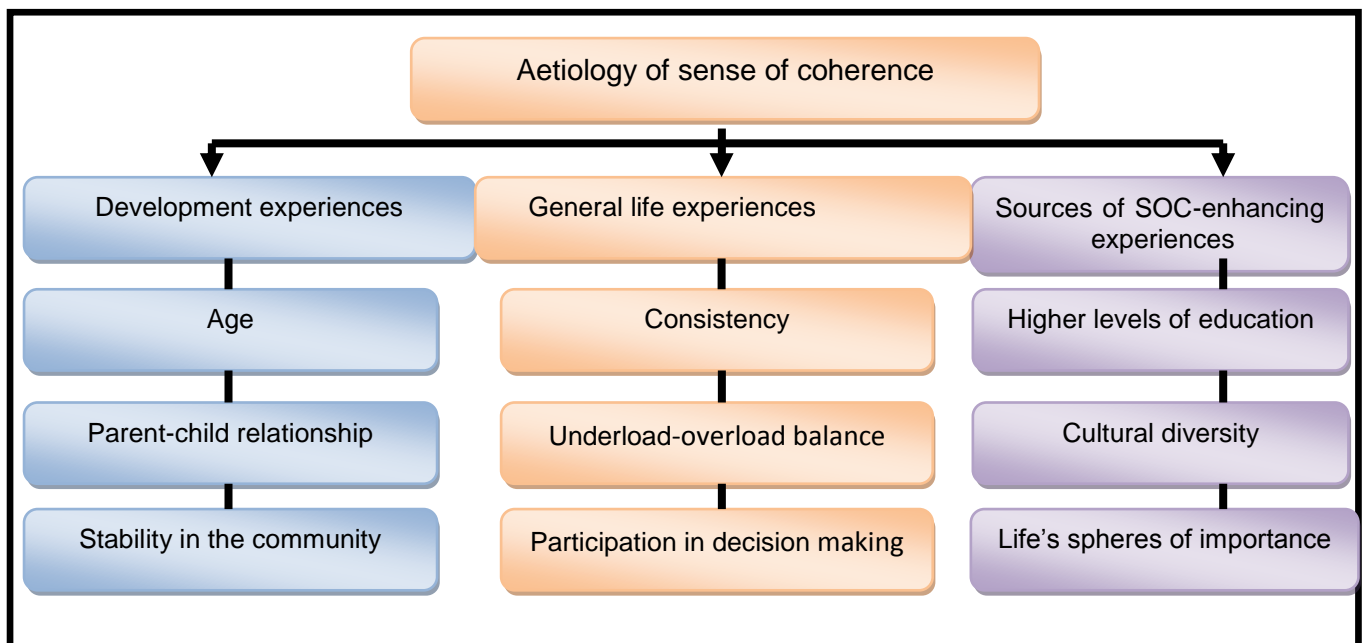


Figure 3.1: Aetiology of sense of coherence

Figure 3.1 above relates to the aetiology of sense of coherence. There are various experiences that individuals go through to develop the strength of sense of coherence, namely, developmental experiences, general life experiences and enhancing experiences.

(i) Developmental experiences

Antonovsky and Sagy (1985) proposed three developmental experiences that have a definite influence on sense of coherence, namely, age, parent-child relationship and the stability of the community.

(a) Age

In terms of age, a stronger sense of coherence in individuals results from the development of the total personality (Bezuidenhout & Cilliers, 2010; Nammontri, Robinson & Baker, 2012; Sardu, Mereu, Sotgiu, Andrissi, Jacobson & Paolo, 2012).

(b) Parent-child relationship

The strength of the parent-child relationship is related to strong emotional bonds and open communication channels (Viljoen, 2012).

(c) Stability of the community

Stability in the community will have a positive effect on the development of a strong sense of coherence (Bezuidenhout & Cilliers, 2010; Robinson et al., 2012; Sardu et al., 2012). However, if individuals receive conflicting information, then this results in their being unable to make sense of their environment (Bezuidenhout & Cilliers, 2010; Sardu, et al., 2012).

(ii) General life experiences

The strength of the sense of coherence is furthermore shaped by the general life experiences relating to consistency, a balance between under- or overload of stress, as well as participation in socially valued decision-making processes (Bezuidenhout & Cilliers, 2010; Marx, 2011; Harry & Coetzee, 2011; Harry, 2011).

(a) Consistency

With regard to consistency, if individual behaviour in the same circumstances is consistent then the individual experiences consistency in life (Bezuidenhout & Cilliers, 2010; Marx, 2011; Harry & Coetzee, 2011; Harry, 2011).

(b) Underload-overload balance

Underload-overload balance is referred to as life experiences that are appropriate to a person's capacities. From birth, individuals are controlled by demands emerging from both the external environment or internally. These tasks call on individuals to exert energies, skills and knowledge to cope effectively, which include the resources at one's disposal (Bezuidenhout & Cilliers, 2010; Marx, 2011; Harry & Coetzee, 2011; Harry, 2011).

Underload occurs when there is nothing to manage and, as a result, 'emptiness' takes over and personal and role identities wither. A balanced load refers to a consistent history of being called upon to utilise one's potential in relation to the resources at one's disposal, either found in the inner world or in the world around them (Bezuidenhout & Cilliers, 2010; Feldman, 2011; Hutchinson, Stuart & Pretorius, 2010; Marx, 2011; Harry & Coetzee, 2011; Harry, 2011).

(c) Participation in decision making

Participation in decision making is crucial so that individuals approve of the tasks set before them, that they have considerable performance responsibility and that their behaviour has an impact on the outcome of the experience. Consequently, sense of coherence strengthens as a result of the experience. It is important for the individual to take part in decision making (Bezuidenhout & Cilliers, 2010; Marx, 2011; Harry & Coetzee, 2011; Harry, 2011).

(iii) *Sources of experiences that enhance sense of coherence*

(a) Higher levels of education

There are different perspectives on how sense of coherence can be enhanced. The higher the educational level the more a sense of coherence is fostered (Bezuidenhout & Cilliers, 2010; Harry & Coetzee, 2011; Harry, 2011; Marx, 2011).

(b) Cultural diversity

Moreover central to the salutogenic model, there are many cultural paths that lead to the development of a strong sense of coherence. Life experiences that result in a strong sense of coherence will be different from culture to culture (Bezuidenhout & Cilliers, 2010).

(c) Life spheres of importance

The life spheres of importance refers to individuals who establish spheres of subjective importance (boundaries), of which things do not bother them which can include factors such as politics which might not interest them (Bezuidenhout & Cilliers, 2010; Harry & Coetzee, 2011; Harry, 2011; Marx, 2011).

In summary, sense of coherence is viewed as a psychological global orientation that influences the way people understand their environment. Individuals having a strong sense of comprehensibility, manageability and meaningfulness indicate a lower rating of stress, less emotional distress and a lower level of anxiety. Generalised resistance resources are characteristics which help an individual to cope, avoid and combat stressors of human existence. Individuals develop a strong sense of coherence through developmental experiences, general life experiences and sources of experiences that enhance sense of coherence.

According to research conducted by Harry (2011) on sense of coherence and call centres, call centre agents have higher levels of sense of coherence, suggesting that call centre employees are more likely to experience effective wellbeing and to counteract burnout levels. Having a higher sense of coherence also suggests that call centre employees apply

personal resources in enhancing their resilience to cope with stressors in a call centre work environment.

3.2.2 Theoretical models of emotional intelligence

There are three major models of emotional intelligence, namely, (a) the Salovey and Mayer model (1997) which defines this construct as the ability to perceive, understand, manage and use emotions to facilitate thinking; (b) the Goleman model (2001) that views it as an assortment of various competencies and skills that contribute to successful managerial performance; and (c) the Bar-On model (2002) that describes emotional intelligence as an array of interrelated emotional and social competencies and skills that impact on intelligent behaviour. For the purpose of this study all three of these models will be discussed.

3.2.2.1 *Salovey and Mayer: an ability model of emotional intelligence*

The term 'emotional intelligence' was first coined by Peter Salovey and John Mayer (Salovey & Mayer, 1990). The key idea stemmed from intelligence and emotions. The main proposition of the ability model of Salovey and Mayer (1997) reveals that emotions affect individuals as well as organisational performance (Rangriz & Mehrabi, 2010). In the past, psychology has considered emotion as disruptive, disorganised and characteristic of poor judgements. However, new theories suggest that the emotions play an important role in motivating and directing human activity. Individuals vary in their ability to process information of an emotional nature (Rangriz & Mehrabi, 2010). This ability is then viewed as manifesting itself in certain adaptive behaviours (Cheung & Tang, 2010). The theory posits that emotional intelligence is comprised of two areas, namely, experiential (ability to perceive, respond and manipulate emotional information without necessarily understanding it) and strategic (ability to understand and manage emotions without necessarily perceiving feelings well or fully experiencing them) (Chang & Chang, 2010; Devonish & Greenidge, 2010; Jyothi & Jyothi, 2012; Kirk et al., 2011).

Below figure 3.2 illustrates the four branch model by Mayer and Salovey (1997) which describes four areas of capacities and skill that collectively describe many areas of emotional intelligence. This model defines emotional intelligence as involving the abilities to accurately perceive emotions in oneself and others, use emotions to facilitate thinking, understand emotional meaning and manage emotions.

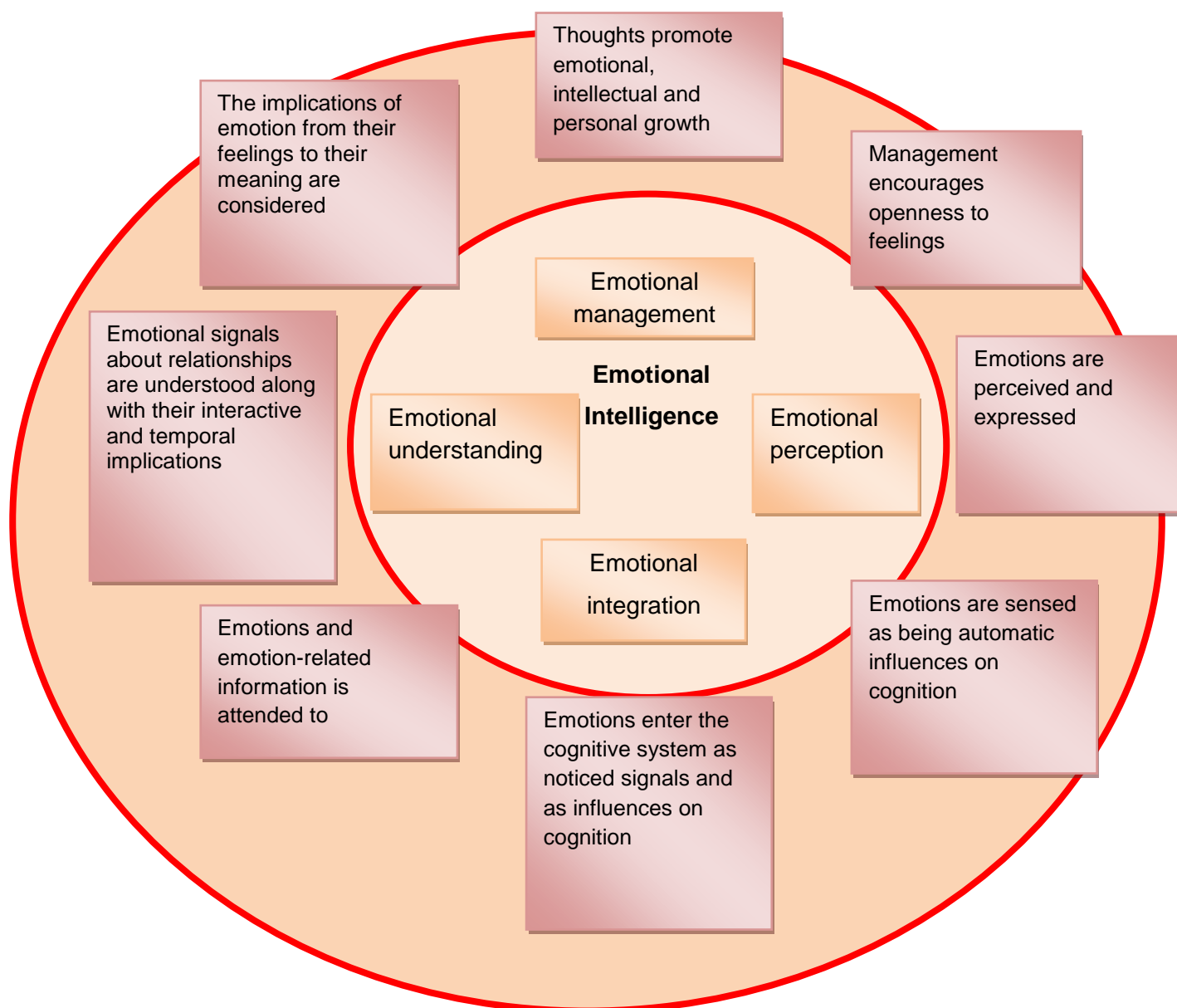


Figure 3.2: Salovey and Mayer's (1997) four-branch model of emotional intelligence

Each area of the four-branch model of emotional intelligence is divided into two branches that range from basic psychological processes to more complex processes of integrating emotion and cognition. In the first branch, *emotional perception* is the ability to be self-aware of emotions and to express emotions and emotional needs accurately to others (Cheung & Tang, 2010; Rangriz & Mehrabi, 2010; Riaz & Khan, 2012). Emotional perception includes the ability to distinguish between honest and dishonest expressions of emotion. The second branch is *emotional integration*; this is the ability to generate, use and feel emotion as necessary or employ them in cognitive processes. It is also the ability to distinguish among

the different emotions one is feeling and to identify those that are influencing one's thought processes (Chang & Chang, 2010; Devonish & Greenidge, 2010; Kirk et al., 2011).

The third branch, which is *emotional understanding*, is the ability to understand complex emotions (such as feeling two emotions at once) and the ability to recognise transitions from one emotion to the other. Lastly, the fourth branch, *emotion management*, is the ability to connect or disconnect from an emotion depending on its usefulness in a given situation (Chang & Chang, 2010; Devonish & Greenidge, 2010; Kirk et al., 2011). A depiction of this four-branch model is illustrated in figure 3.2 which outlines the four branches and the corresponding stages in emotion processing associated with each branch.

According to Kirk et al. (2011), emotional intelligence is emerging as a potentially important factor related to various good outcomes, including productivity. Emotional intelligence is also related to better mental and physical health (Chang & Chang, 2010; Kirk et al., 2011). The model of emotional intelligence includes the qualities of effective perception of emotion, understanding of emotion and the management of emotion in the self (Chang & Chang, 2010; Jyothi & Jyothi, 2012).

According to Devonish and Greenidge (2010), the ability model consists of a set of abilities that facilitates the perception, assimilation, understanding and regulation of emotions so as to promote emotional and intellectual growth. In research conducted by Hu (2012) on abusive supervisors, emotional intelligence played a role when individuals perceive others and understand their own emotions by rapidly recovering from psychological distress by regulating their own emotions.

3.2.2.2 *Goleman's emotional intelligence competencies*

Goleman's 2001 model outlines four main constructs of emotional intelligence. The first is self-awareness, that is, the ability to read one's emotions and recognise their impact while using inside feelings to guide decisions (Allam, 2011; Bailey, Murphy & Porock, 2011; Dumbvara, 2011; Yunus, Ghazali & Hassan, 2012)). Self-management, the second construct, involves the process of controlling one's emotions and impulses and adapting to changing circumstances. The third construct, social awareness, includes the ability to sense, understand and react to others' emotions while comprehending social networks. Finally,

relationship management, the fourth construct, entails the ability to inspire, influence and develop others while managing conflict (Bailey et al., 2011; Dumbvara, 2011).

These constructs or emotional competencies are not viewed as innate talents, but rather as learned capabilities that must be worked on and developed to achieve outstanding performance. The theory posits that individuals are born with a general emotional intelligence that determines their potential for learning emotional competencies. The clustering of the competencies under the various constructs is not random; they appear in synergistic clusters or groupings that support and facilitate each other (Bailey et al., 2011; Dumbvara, 2011).

Table 3.2 illustrates Goleman's 2001 conceptual model of emotional intelligence and corresponding emotional competencies. The constructs and competencies fall under one of four categories: the recognition of emotions in oneself or others and the regulation of emotion in oneself or others.

Table 3.2: *Goleman's (2001) Emotional Intelligence Competencies*

SELF Personal competence	OTHER Social competence	
RECOGNITION	Self-awareness Emotional self-awareness Accurate self-assessment Self-confidence	Social awareness Empathy Service orientation Organisational awareness
REGULATION	Self-management Self-control Trustworthiness Conscientiousness Adaptability Achievement drive Initiative	Relationship management Developing others Influence Communication Conflict management Leadership Change catalyst Building bonds Teamwork and collaboration

According to Dumbvara (2011), psychologists and sociologists began to acknowledge that the non-cognitive, affective side of the individual, which manifests in empathetic

interpersonal relations, plays an equally important role in personal development in such cognitive skills as problem solving, decision making and memory.

Research done on nurses by Bailey et al. (2011) recognised nurses as having the ability to regulate their own emotions which assisted in guiding their decision. This, in turn, increased their self-awareness which made them able to reflect on their past experiences and identify strengths and weaknesses. Consequently, they were able to control their emotions in a fast changing work environment. The emotional competencies involved in emotional intelligence are learned capabilities but must be worked on and developed to achieve performance (Bailey et al., 2011; Roy & Chaturvedi, 2011).

Goleman's notion of emotional intelligence relates to a skill that an individual can control through self awareness, improve it through self-management, understand the effects through compatibility and through relationship management and to behave in a way that develops their own or others' spirits (Bailey et al., 2011; Shaemi et al., 2011).

According to research conducted by Yu-Chi Wu (2011), emotional intelligence has a positive impact on job performance, as individuals who are emotionally intelligent have the capacity to be aware of their own emotions and also their relationship with others. Moreover, individuals with high emotional intelligence are generally aware of, and manage, their emotions in terms of retaining a positive mental state.

3.2.2.3 *Bar-On's mixed model of emotional intelligence*

Bar-On's (2002) mixed model of emotional intelligence focuses on interpersonal and intrapersonal skills, adaptability, stress management and general mood (Roy & Chaturvedi, 2011). Below is figure 3.3 which describes emotional intelligence as a cross-section of interrelated emotional-social competencies, skills and facilitators, which determine how effectively people understand and express themselves, understand others, and cope with daily demands.

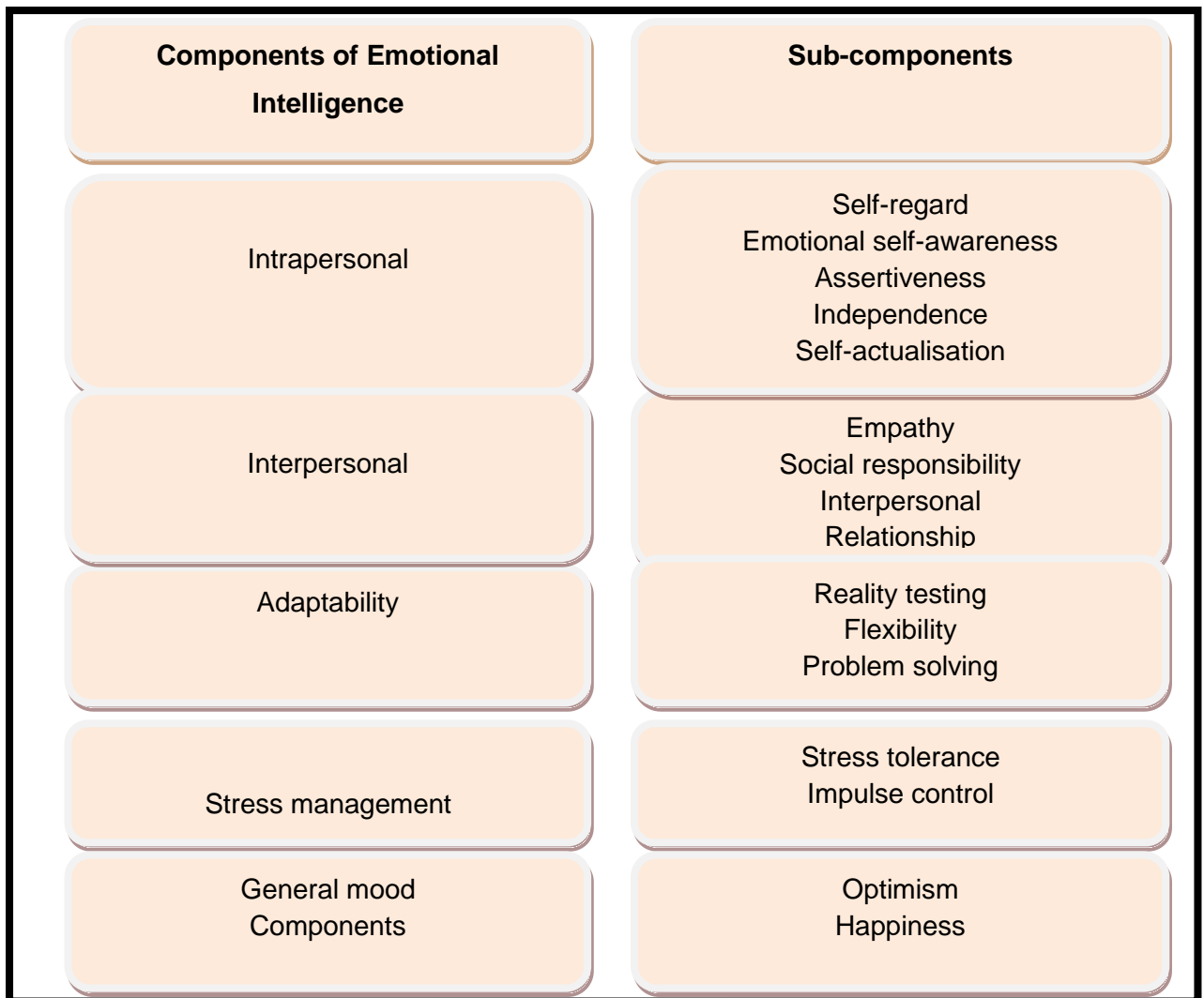


Figure 3.3: Bar-On's (2002) model of the components of emotional intelligence

Mixed models are comprised of a variety of behavioural components that are considered to be important aspects of emotional intelligence. These include personality, intellect, motivation, attitudes and social skills (Van Zyl & De Bruin, 2012).

Bar-On's (2002), model of emotional intelligence relates to the *potential* for performance and success, instead of performance or success itself, and is considered process-oriented rather than outcome-oriented. It focuses on an array of emotional and social abilities, which includes the ability to be aware of, understand and express oneself, the ability to be aware of, understand and relate to others, the ability to deal with strong emotions, and the ability to adapt to change and solve problems of a social or personal nature (Bar-On, 1997; Van Zyl & De Bruin, 2012). In his model, Bar-On outlines five components of emotional intelligence: intrapersonal, interpersonal, adaptability, stress management, and general mood. Within

these components are sub-components, all of which are outlined in figure 3.3. Bar-On states that emotional intelligence develops over time and that it can be improved through training, programming and therapy (Bar-On, 2002). According to this model, emotional-social intelligence is a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands.

To be emotionally and socially intelligent is to effectively understand and express oneself, to understand and relate well with others, and to successfully cope with daily demands, challenges and pressures. This is based, first and foremost, on one's intrapersonal ability to be aware of oneself, to understand one's strengths and weaknesses, and to express one's feelings and thoughts non-destructively. On the interpersonal level, being emotionally and socially intelligent encompasses the ability to be aware of others' emotions, feelings and needs, and to establish and maintain cooperative, constructive and mutually satisfying relationships (Bar-On, 2002; Hu, 2012; Van Zyl & De Bruin, 2012). Ultimately, being emotionally and socially intelligent means to effectively manage personal, social and environmental change by realistically and flexibly coping with the immediate situation, solving problems and making decisions. To do this, we need to manage emotions so that they work for us and not against us, and we need to be sufficiently optimistic, positive and self-motivated (Bar-On, 2002; Van Zyl & De Bruin, 2012).

The conceptualisations of emotional-social intelligence include one or more of the following key components:

- the ability to recognise, understand and express emotions and feelings
- the ability to understand how others feel and relate with them
- the ability to manage and control emotions
- the ability to manage change, adapt and solve problems of a personal and interpersonal nature
- the ability to generate positive affect and be self-motivated.

According to Van Zyl and De Bruin (2012), the mixed model of emotional intelligence has been shown to be a valid and significant predictor of many life outcomes, namely, conflict management, negotiation and job performance, and it has been linked to positive outcomes for health. In research conducted by Gryn (2010) in a call centre work environment,

individuals with higher than average emotional quotients are capable and successful in meeting environmental demands and pressures. Emotional intelligence and cognitive intelligence contribute equally to a person's general intelligence, which then offers an indication of one's potential to succeed in life.

In summary, emotional intelligence is viewed as the ability to recognise, understand, manage and utilise emotions to facilitate thinking which generate positive effect to be self-motivated. It is also viewed as having various competencies and skills, which include interrelated emotional and social competencies that impact on intelligent behaviour

According to research done by Huang, Chan, Lam and Nan (2010), emotional intelligence in a call centre environment, where employees have to manage their emotions frequently and extensively, has been shown to have a strong effect on work attitudes. Social skills are important for managing customer relationships. In addition, emotional intelligence is relevant to work behaviours in call centres because employees with high emotional intelligence have better interpersonal skills and abilities to tolerate emotional pressure and are less likely to experience emotional exhaustion and burnout.

3.2.3 Theoretical model of burnout

In the context of this study, the conservation of resources model of burnout developed by Hobfoll and Shirom (1993) and the job demands and job resources model developed by Demerouti, Bakker, Nachreiner and Schaufeli (2001) are used as a theoretical framework. Individuals who possess personal resources will likely be able to deal with and adapt to a call centre work environment and demonstrate coping (Yürür & Sarikaya, 2012).

3.2.3.1 *The conservation of resources model of burnout*

The conservation of resources model (figure 3.4) posits that stress and burnout occur when individuals perceive a threat to something that they value, namely, resource demands (Yürür & Sarikaya, 2012). This threat emanates from work-related demands and the loss of work-related resources. The initial threat is viewed as a stressor; when continued loss or threat to resources occurs, in particular after a great deal of investment in work, this is said to lead to burnout (Choi & Jin, 2010; Hobfoll, 2001; Ng, Fong & Wang, 2011).

The conservation of resources model extends beyond the notion of stress, consequently helping to understand how chronic stress develops into burnout (Choi & Jin, 2010; Ng et al., 2011). The main idea of the conservation of resources model is that job demands and job resources can predict burnout and its individual dimensions differently (Choi & Jin, 2010; Leiter, 1991; Ng et al., 2011). This is due to different psychological experiences of loss and gain. In general, most people are concerned with avoiding loss rather than gains; consequently, demands are more likely to lead to burnout than resources to protect against it (Choi & Jin, 2010; Lent & Schwartz, 2012; Ng et al., 2011). According to research done by Lent and Schwartz (2012), burnout results from work overload and is more strongly related to the emotional exhaustion of burnout than resource variables, for example social support. The research also proved that the demand variables tended to be less related to the depersonalisation and person accomplishment components of burnout, while the resource variables were somewhat strongly related to these two components (Choi & Jin, 2010; Ng et al., 2011).

Various research on the conservation of resources model stipulates that the extent of the relationship between burnout and job performance is best understood in terms of the investment of resources (Choi & Jin, 2010). The strength of the conservation of resources model is its specification of the processes underlying the investment of resources; that is, when resources become depleted individuals are more careful regarding the investment of those resources (Choi & Jin, 2010; Hobfall, 1988; Ng et al., 2011).

Below figure 3.4 illustrates that individuals have an innate drive to create, foster, conserve, and protect the quality and quantity of resources such as shelter, attachment to significant others and self esteem.

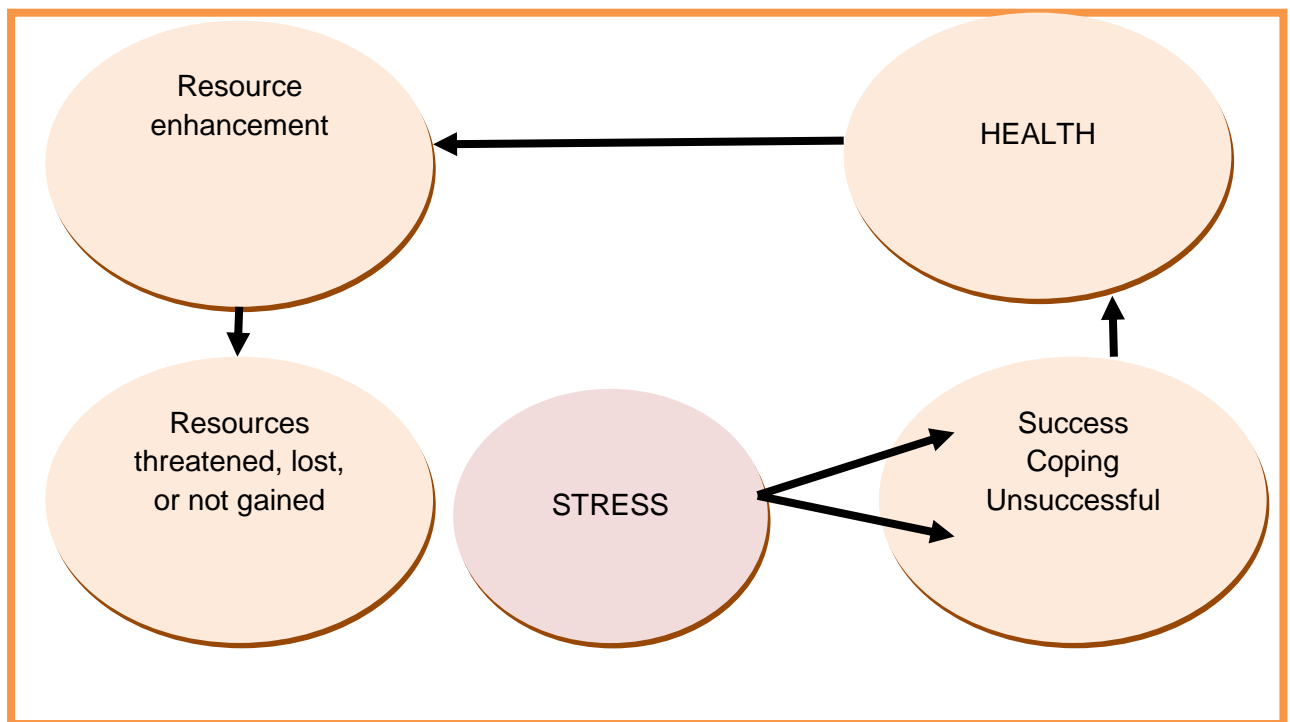


Figure 3.4: The conservation of resource model of burnout Source: Hobfall and Shirom (1993)

3.2.3.2 The job-demands-resources model

The job-demands-resources model proposes that the development of burnout follows two processes. The first process is the demanding aspect of work, for example extreme job demands leads to constant overtaxing and eventually exhaustion. Secondly, a lack of resources complicates the meeting of job demands which further leads to withdrawal behaviour (Hultell & Gustavsson, 2011).

Stress is viewed as the disruption of the equilibrium of the cognitive-emotional-environmental system by external factors (Hultell & Gustavsson, 2011; Lent & Schwartz, 2012; Pines, Hammer, Neal & Icekson, 2011). These external factors, called stressors, can lead to the equilibrium of cognitive or emotional system or a state of wellbeing, depending on the availability of coping resources within the individual (Lent & Schwartz, 2012; Pines et al., 2011). The term 'stressor' can only be used when external factors exert negative influences on most people in most situations.

The job-demands-resources model (figure 3.5) depicts burnout as the result of two categories of work characteristics. Job demands are those aspects of the job that require effort, and as a result are associated with psychological costs such as burnout (Lent & Schwartz, 2012; Pines et al., 2011). Job resources, on the other hand, are the characteristics of the job that assist in achieving work goals, diminish the demands of the job or lead to personal growth. The job demands component of the model predicts the emotional exhaustion component of burnout, while job resources predict the depersonalisation component of burnout (also termed disengagement) to reflect a more general process of pulling away from one's job (Lent & Schwartz, 2012). As shown in figure 3.5, the job-demands-resources model assumes two underlying psychological processes. The first is the health impairment process, which posits that high levels of job demands result in an exhaustion of individuals' physical and mental resources, which ultimately leads to a depletion of energy and health impairment. The second, referred to as the motivational process, is based on the premise that high levels of job resources result in increased motivation, which leads to increased and improved performance (Hultell & Gustavson, 2011). The general premise of the job-demands-resource model is context specific, in that job demands and job resources vary between different occupations and situations.

Below, figure 3.5 depicts the existence of two general categories namely job demands and job resources.

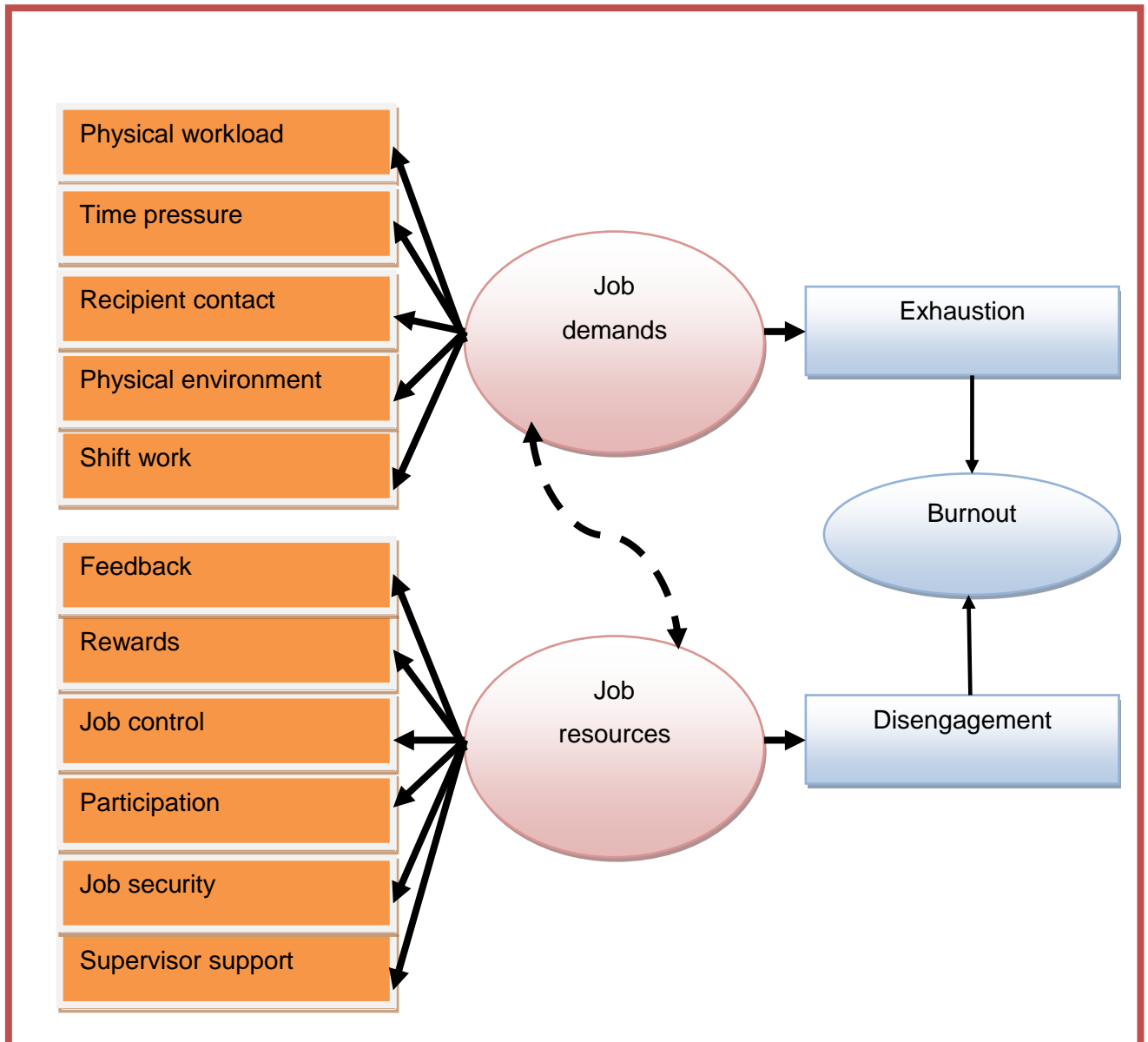


Figure 3.5: The job demands-resource model of burnout Source: Demerouti et al. (2001, p. 19)

According to research in a higher education call centre environment by Harry (2011), burnout is often associated with high risk profiles of call centre representatives, and results when an employee is less capable of performing owing to energy that has been drained. Results indicated that the wellness profile of the higher education call centre seems to be negatively influenced by high burnout levels. Research by Volker, Bernhard, Anna, Fabrizio, Robin, Jessica et al. (2010) suggested that coping strategies mediate burnout, in that they comprise stabilising cognitive and behavioural efforts to maintain psychosocial adaptation in times of stress. Other research has revealed that adopting a passive coping strategy is

positively related to burnout (Lent & Schwartz, 2012). Results indicate that coping strategies combined with job demands and job resources could be a decisive factor in both the health impairment process and motivational process of the job-demands-resource model (Lubuschagne et al., 2012; Volker et al., 2010).

According to Blumenshine, Bertolone and Heinrich (2010) and Lee, Lee and Choi (2010), burnout is a specific kind of occupational stress that posits that emotionally demanding work conditions lead to increased levels of burnout, with age being a significant indicator of emotional exhaustion. According to Choi and Jin (2010), when people have higher job demands and lower levels of social support, they tend to experience higher stress.

In summary, burnout occurs when individuals feel a threat to something they value; these include work-related demands and loss of work-related resources. Individuals experience different psychological experiences of loss and gains. Most individuals avoid loss as this can lead to greater demands and burnout.

3.3 PERSON-CENTRED VARIABLES INFLUENCING PSYCHOLOGICAL WELLNESS

Wellness is related to the psychological wellbeing of individuals, while flourishing is based on psychological and social wellbeing (Diener et al., 2010). The understanding of individuals' wellness-related attributes can enhance coping in a call centre work environment; hence, it is important to include a discussion on the person-centered variables. The variables of age, gender, race and marital status are examined below.

3.3.1 Sense of coherence

3.3.1.1 Age

An individual's sense of coherence gets stronger as they get older. This is a result of that person's total personality over time (Sairenchi et al., 2011). During the twenties an individual develops psychological stability and a strong sense of coherence develops by the age of 30 (Antonovsky & Sagy, 1985; Sairenchi et al., 2011). In older people a strong sense of coherence may protect them from the physical effects of life transitions (Sairenchi et al., 2011).

3.3.1.2 *Gender*

According to research by Moksnes, Espnes and Lillefjell (2011), studies have proven that males tend to have a higher sense of coherence than females. In their study boys in all age groups were shown to have a significantly higher sense of coherence than girls, with girls scoring higher on anxiety and depression. In a study conducted on depression among Japanese workers by Sairenchi et al. (2011), males were shown to have a higher sense of coherence.

3.3.1.3 *Race*

Few studies have assessed racial variation in sense of coherence. In a community sample, older Japanese American women were found to have a lower sense of coherence than white American women, possibly as a result of their minority status (Sairenchi et al., 2011). According to research by Harry (2011), racial groups did not differ significantly with regard to sense of coherence.

3.3.1.4 *Marital status*

In research done on depression among Japanese workers, it was revealed that married people had a higher sense of coherence (Sairenchi et al., 2011). Closeness of families, have predicted higher levels of sense of coherence (Sairenchi et al., 2011).

3.3.2 Emotional intelligence

3.3.2.1 *Age*

Emotional intelligence has been observed to increase with age (Khalili, 2012; Roy & Chaturvedi, 2011). Cognitive intelligence increases until late adolescence and then mildly decreases in the second and third decades of life. As one get older, one becomes more emotionally and socially intelligent (Khalili, 2012; Roy & Chaturvedi, 2011). Older people tend to be more emotionally and socially intelligent than younger people.

3.3.2.2 *Gender*

According to studies by Zijlman, Embregts, Gerits, Bosman and Derkson (2011), females tend to have stronger interpersonal skills than males, but males tend to have higher intrapersonal capacity, are better at managing emotions and are more adaptable than females. Women are more aware of emotions, demonstrate more empathy, relate better interpersonally and are more socially responsible than men (Zijlman et al., 2011). Men appear to have better self-regard, are more self-reliant, cope better with stress, are more flexible, solve problems better and are more optimistic than women (Zijlman et al., 2011). On the other hand, females are more aware of emotions than males and are more adept at managing emotions than males (Zijlman et al., 2011).

3.3.2.3 *Race*

In research conducted by Rangriz and Merabi (2010) among individuals in Iran, a positive relationship exists between emotional intelligence and performance. In research conducted by Chang and Chang (2010), among individuals in China, emotional intelligence was found to have a positive effect on work stress. Research conducted by Devonish and Greendige (2010) among individuals from the Caribbean revealed emotional intelligence as having a positive effect on performance.

3.3.2.4 *Marital status*

According to research by Rangriz and Merabi (2010), married individuals display a higher level of emotional intelligence than unmarried individuals. Research by Orthman, Abdullah and Ahmad (2009) also revealed married individuals as having higher levels of emotional intelligence than single individuals. However, there is a paucity of research on marital status in terms of emotional intelligence.

3.3.3 Burnout

3.3.3.1 Age

According to research conducted by Lent and Schwartz (2012) among psychologists, there seems to be a clear relationship between burnout and age. Accordingly, young psychologists experienced higher levels of burnout than older individuals. Moreover, burnout is higher among individuals who are young, while it is lower for older workers; this is because when individuals grow old they become more stable, have a more balanced perspective on life and are less prone to burnout. Another reason is that older people are often the survivors of difficult early years (Lee & Choi, 2010; Lent & Schwartz, 2012).

3.3.3.2 Gender

Research done on gender revealed that women tend to have higher burnout levels than men (Lent & Schwartz, 2012). Although women seem to experience burnout similarly as men, women tend to be more emotional than men. In research done by Pines et al. (2011) on burnout in couples it was revealed that married women tend to have higher levels of burnout.

3.3.3.3 Race

There is a significant difference between black and white professionals on burnout. Accordingly, African American managers reported lower levels of burnout than Euro-American men (Lent & Schwartz, 2012).

3.3.3.4 Marital status

People who are single experience higher burnout levels than those that are married (Bezuidenhout & Cilliers, 2010). Moreover, burnout levels for providers with families are much lower than those for childless providers (Bezuidenhout & Cilliers, 2010).

Table 3.3 summarises the person-centered wellness-related dispositional attributes.

Table 3.3: *Summary of the Person-Centered Wellness-Related Dispositional Attributes*

Wellness-related dispositional attributes (biographical)	Core conclusion
Sense of coherence	
Age	Individuals' sense of coherence get stronger as they get older.
Gender	Men tend to have a higher sense of coherence than women due to high anxiety and depression amongst women.
Race	There is a tendency for minority race groups to have lower sense of coherence due to their status.
Marital status	Married people tend to have a higher sense of coherence due to closeness of families.
Emotional intelligence	
Age	Emotional intelligence increase with age as individuals become more emotionally and socially intelligent.
Gender	Females tend to have stronger interpersonal skill and males more intrapersonal capacity at managing emotions.
Race	Emotional intelligence has positive effect on performance for various race groups.
Marital status	Married individuals have higher emotional intelligence than their single counterparts.
Burnout	
Age	Burnout tends to be higher among younger individuals as a result older individuals grow and become more stable.
Gender	Women tend to have higher burnout levels than men due to women being more emotional than men.
Race	African American men have lower burnout levels than white American men.
Marital status	Single individuals experience more burnout than married couples.

3.4 IMPLICATIONS OF WELLNESS-RELATED DISPOSITIONAL ATTRIBUTES FOR COPING AND WELLNESS INTERVENTIONS IN THE CALL CENTRE ENVIRONMENT

A psychological coping profile could contribute to a clearer understanding of work in the call centre environment. This would require an integration of the wellness-related dispositional attributes for coping strategies. Researchers in the health and social sciences traditionally used a pathogenic paradigm (Hutchinson, Stuart & Pretorius, 2010). Research has been conducted within the call centre industry mainly on ways of preventing and treating undesired states of health (Borgogni et al., 2012; Consiglio et al., 2013; Perry et al., 2011). The present research focuses on developing the positive aspects and strengths of human behaviour. It also emphasises the importance of the so-called human factor (Diener, et al., 2010). Psychology as a profession acknowledges the importance of understanding holistically the strengths of coping patterns, adaptive abilities and the growth potential of individuals (Mendes & Stander, 2011).

In the ever-changing work environment, organisations place emphasis on their human capital. The positive organisation makes use of specific elements to optimise the potential of human capital. It is therefore important to identify the elements contributing to a positive organisation (Diener et al., 2010; Mendes & Stander, 2011). Organisations, like individuals, have to take into account a continuum that depicts a state of healthy or normal performance with illness and wellness at the opposite ends (Sieberhagen et al., 2011).

The figure 3.6 below provides an overview of the Illness-health wellness continuum.



Figure 3.6: Illness-health wellness continuum

In figure 3.6 above, the negative (illness-health) and positive (health-wellness) deviance refers to aberrations of harmful or unhealthy functioning at one end of the continuum and virtuous or flourishing organisations and individuals at the other end (Diener et al., 2010). When organisations typify a single-minded focus on profit, these organisations operate in a negative domain and individual behaviour is characterised by anxiety, distrust and burnout. The other side of the continuum, namely, the health-wellness approach, is characterised by

success and flourishing in organisations and individual behaviour is characterised by resilience, wisdom and high levels of positive energy (Diener et al., 2010).

The figure 3.7 illustrates the integration of the wellness-related dispositional attributes and the psychological dimensions.

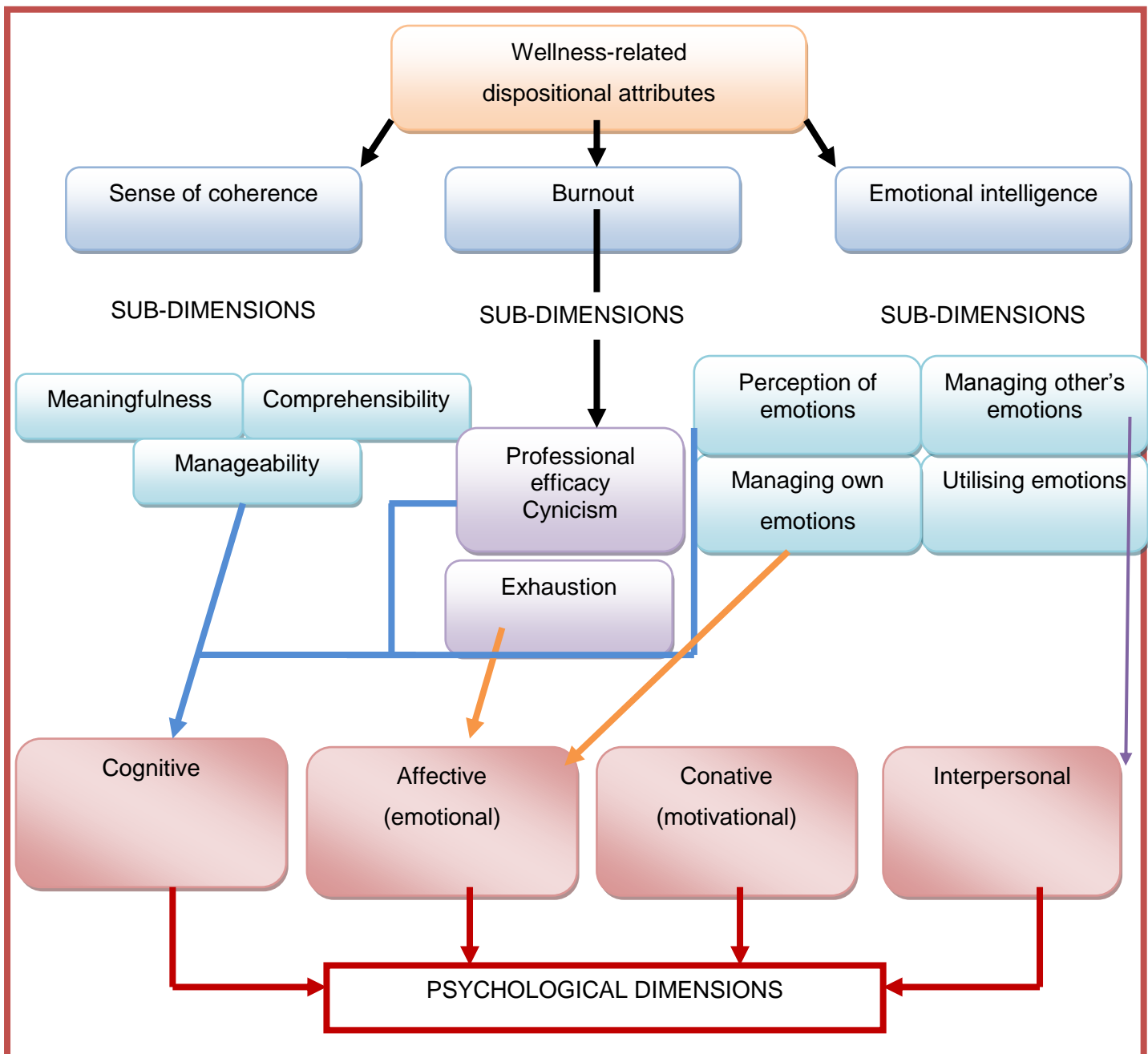


Figure 3.7: Integration of dispositional attributes and psychological dimensions

Figure 3.7 above integrates the wellness-related dispositional attributes, namely, sense of coherence, emotional intelligence and burnout, and the psychological behavioural dimensions. The next section elaborates on each psychological behavioural aspect depicted in figure 3.7.

3.4.1 Sense of coherence

Figure 3.7 shows that sense of coherence consists of three interrelated dimensions, namely, meaningfulness, comprehensibility and manageability. Two dimensions, namely, comprehensibility and manageability provide a clear indication of how individuals on a **cognitive level** will comprehend anxiety-provoking situations and view them as manageable (Austin & Cilliers, 2011; Marx, 2011). Individuals' **affective (emotional)** coping develops through their repeated exposure to stressors, which increases their ability to deal with these stressors. On a **conative (motivational) level**, individuals will select the appropriate resources in order to manage the situation effectively (Marx, 2011); the stronger the sense of coherence the better the individual will be able to cope (Marx, 2011). On an **interpersonal level**, coping is achieved by being socially connected to restructure the stressor. Table 3.4 provides a visual representation of the dispositional attributes of sense of coherence and its psychological-behavioural dimensions. Table 3.4 summarises the wellness-related dispositional attribute of sense of coherence.

Table 3.4: *Visual Representation of the Dispositional Attributes of Sense of Coherence*

Psychological-behavioural dimensions	Wellness-related attributes		
	SENSE OF COHERENCE		
	Manageability	Comprehensibility	Meaningfulness
	COPING STRATEGIES		
Cognitive	Individuals comprehend provoking situations on the cognitive level and view them as manageable and meaningful		
Affective	Repeated exposure to stressors increases coping		
Conative	Individuals will select appropriate resources to manage the situation		
Interpersonal	Coping is achieved by being socially connected to restructure the stressor		

3.4.2 Emotional intelligence

Emotional intelligence is distinct from other types of intelligences and competencies, such as social intelligence, cultural intelligence, social competencies, social effectiveness and interpersonal competence (Chang & Chang, 2011; Rangriz & Mehrabi, 2010). As shown in figure 3.7, emotional intelligence consists of four subdimensions, namely, perceptions of emotions, managing own emotions, managing others emotions, and utilising emotions. The dimension of perceptions of emotions is viewed on a **cognitive level** as the recognition, use, understanding and management of one's own and others' emotional states and using these feelings to motivate, plan and achieve (Colfax, 2010). On an **affective level**, individuals are aware of their own emotions (attention) and have the ability to identify and discern among various emotions (clarity), as well as the capability to regulate their emotions (repair) (Kirk et al., 2011; Rangriz & Mehrabi, 2010). On a **conative level**, individuals are more likely to initiate relevant behaviours and master new behaviours.

On an **interpersonal level**, individuals' perception of their own abilities carries with it important implications for their relationships with self and others, and their ability to function in various environments and conditions. The dimension of managing others' emotions indicates that, on a interpersonal level, not only are individuals able to make sense of their own emotional capabilities, but they are also able to make sense of others' emotional experiences as well (Kirk et al., 2011; Rangriz & Mehrabi, 2010). Table 3.5 provides a visual representation of the dispositional attributes of emotional intelligence and its psychological dimensions.

Table 3.5: *Visual Representation of the Emotional Intelligence Dispositional Attributes*

Psychological-behavioural dimensions	Wellness- related attributes			
	EMOTIONAL INTELLIGENCE			
	Perceptions of emotions	Managing own emotions	Managing others emotions	Utilising emotions
	COPING STRATEGIES			
Cognitive	Recognise, manage and understand one's own emotions.			
Affective	Individuals are aware of their emotions and able to identify and discern between the different emotions.			
Conative	Individuals are more likely to initiate relevant behaviours and master new behaviours.			
Interpersonal	Making sense of others' emotional intelligence. Individuals' perceptions of their own abilities carry important implications for their relationships and having the ability to function under various conditions			

3.4.3 Burnout

Burnout consists of three dimensions, namely, professional efficacy, exhaustion and cynicism. The dimension of professional efficacy and cynicism indicates individuals on a **cognitive level**, as having negative callous, or excessively detached response to various aspects of the job, and a level of reduced personal accomplishment as a result of not being able to execute their job effectively. The dimension of exhaustion and depersonalisation indicates that on an **affective level** individuals feel a depletion of emotional resources (Choi et al., 2012; Yürür & Sarikaya, 2012). Employees who are emotionally exhausted typically feel as though they lack adaptive resources and cannot give any more to their job. The energy that they once had to devote to their work is now depleted, leaving them without the resources to perform their work (Hultell & Gustavson, 2011). On an affective level individuals' coping style is described as dealing with emotional distress through strategies such as ignoring the situation.

On a **conative (motivational) level**, depersonalisation (also known as cynicism and disengagement) often occurs in response to the aforementioned emotional exhaustion. Depersonalisation describes a process whereby employees detach from their job and begin to develop callous or uncaring attitudes toward their job, their performance and those associated with the job (e.g. clients, co-workers, etc) (Choi et al., 2012; Yürür & Sarikaya, 2012). Coping strategies such as avoidance and distancing were found to be associated with higher levels of stress, emotional exhaustion and depersonalisation (Choi et al., 2012; Yürür & Sarikaya, 2012). On a conative level, individuals with high levels of job resources show increased motivation. On an **interpersonal level**, individuals have a sense of personal efficacy and perceive that they have an influence on others; they work well with others and deal with problems competently. Problem-solving behaviour or coping strategies are linked through rational and task-oriented strategies, therefore a direct coping style has been found to have lower levels of burnout (Lent & Schwartz, 2012). Table 3.6 provides a visual representation of the dispositional attributes of burnout and its psychological-behavioural dimensions.

Table 3.6: *Visual Representation of the Burnout Dispositional Attributes*

Psychological-behavioural dimensions	Wellness-related attributes		
	BURNOUT		
	Professional efficacy	Exhaustion	depersonalisation
	COPING STRATEGIES		
Cognitive	Individuals perceive a level of reduced accomplishment and cannot do the work properly		
Affective	Individuals feel a depletion of emotional resources; energy is depleted		
Conative	Individuals with high levels of job resources show increased motivation. Depersonalisation (also known as cynicism and disengagement) often occurs in response to emotional exhaustion. Depersonalisation describes a process whereby employees detach from their job and begin to develop callous or uncaring attitudes toward their job, their performance and those associated with the job.		
Interpersonal	Individuals' sense of personal efficacy and their perceptions of having an influence over others, working well with others and dealing competently with problems.		

In summary, with regards to the psychological behavioural dimensions discussed, sense of coherence is viewed as individuals comprehending stressful situations from a cognitive level to coping with repeated stressors from an effective level (emotional level) which motivates them to managing a situation on a conative level and being socially connected to restructure the stressor on an interpersonal level.

Emotional intelligence is viewed when individuals firstly perceive their emotions on a cognitive level and they then become aware of their emotions on an affective level

(emotional level) and therefore initiate relevant behaviours on a conative level (motivational level) by also taking account of understanding the importance of their relationship with themselves self and others on a interpersonal level.

Burnout can be identified when individuals feel a reduced sense of accomplishment on a cognitive level and this leads to individuals feeling exhausted on an effective level (emotional level) which can lead to disengaging from the job on a conative level (motivational level), though an individual can have influence over others which can bring about coping behaviour on an interpersonal level.

3.5 INTEGRATION AND EVALUATION

Positive psychology emphasises developing and maintaining wellbeing and personal strengths. Sense of coherence and emotional intelligence are regarded as personal strengths that can assist individuals to cope in stressful work environments such as call centre work. A strength perspective encapsulates assumptions and attributions about health, motivation, capacities, potential and social functioning (Hutchinson et al., 2010). Character strengths are consistent traits that need to be developed and nurtured and which in turn play an important role in the development of individuals (Hutchinson et al., 2010).

Research has shown that a strong sense of coherence is related to a lower rating of stress and can act as a buffer against burnout (Marx, 2011; Moksnes et al., 2011; Saimench et al., 2011). Moreover, individuals with a strong sense of coherence are likely to reveal less emotional exhaustion and depersonalisation. Such individuals make cognitive sense of the workplace and perceive information as ordered, clear and structured. Such an individual is also likely to be challenged by work, and will put their efforts and energy into work demands and see them as challenges (Harry, 2011; Harry & Coetzee, 2011; Marx, 2011; Moksnes et al., 2011; Saimench et al., 2011). According to Bezuidenhout and Cilliers (2011), a person with a strong sense of coherence is likely to see stressful situations as less threatening, which can contribute to lower burnout levels.

Feldman (2011) found positive correlations between an individual's sense of coherence and emotional intelligence, which suggests that individuals who possess higher emotional intelligence skills and a sense of coherence are more likely to perform well in the workplace and demonstrate positive behaviours. Moreover, such individuals' are more likely to cope

with stress and make cognitive sense of the workplace. Sense of coherence and emotional intelligence have a strong relationship with psychological wellness. According to research by Pokorski and Kuchcewicz (2012), women tend to score higher on emotional intelligence than men which has to do with the control of coherence, sensibility and manageability of situations. In research conducted by Görgens-Eckermans, et al., (2012) on a group of nurses in South Africa, emotional intelligence was found to significantly lower the stress and burnout levels of nurses, which suggests that emotional intelligence helps diminish burnout development when chronic stress is experienced. This assists in increasing emotional coping resources and enhancing social skills, which may benefit the long-term health and wellness of nurses.

Research by Alam, Mombeni, Malkei, Monazami, Alam, Vatandoust et al. (2012) shows that higher emotional intelligence among referees leads to lower burnout levels. Individuals' non-cognitive skills help to alleviate environmental pressure. Research by Alavinia and Ahmadzadeh (2012) on teachers' emotional intelligence shows that emotional intelligence predicts lower levels of burnout. The research further suggests that the teachers' ability to regulate emotions is healthier in that they accurately perceive and appraise their emotional state, and know when to express their feelings and regulate their moods. This suggests there is a direct connection between emotional intelligence skills and psychological health. Individuals can accordingly cope better with life's challenges and control their emotions more efficiently. Results have shown that burnout declines with age. Individuals learn to handle burnout more effectively as they age (Alavinia & Ahmadzadeh, 2012).

On a cognitive level, sense of coherence helps individuals to perceive information as ordered and structured and being able to manage a situation well. On an affective level, the individual will cope much better if exposed to stressors over a period of time. On a conative level, however, individuals will select the resources to manage the situation, while on an interpersonal level the individual will cope by connecting socially to a stressor (Marx, 2011).

Emotional intelligence on a cognitive level involves an individual perceiving and understanding their own emotions. On an affective level the individual will be able to identify and discern between different emotions (Van Zyl & De Bruin, 2012). On a conative level, individuals are more likely to initiate relevant behaviours and master new behaviours. On an interpersonal level, individuals' ability to manage and understand others' emotions will have an influence on relationships.

On a cognitive level, burnout in an individual will result in their perceiving a level of reduced accomplishment and on an affective level this will result in a depletion of energy. On a conative level, depersonalisation (also known as cynicism and disengagement) may occur in response to emotional exhaustion. Individuals' sense of personal efficacy and their perceptions of having an influence over others, working well with others and dealing competently with problems may influence their interpersonal relations (Hultell & Gustavson, 2012).

According to Roberson and Cooper (2011), psychological wellbeing is related to positive emotions, which help broaden our range of possible responses and actions. Positive emotions lead to the building of resources that in turn enable individuals to cope more effectively over time (Roberson & Cooper, 2011). Emotions have been linked to broader social thinking and to the individual showing more innovative problem solving and more positive views of the self. Positive emotions have a protective effect on people's range of responses and behaviour towards stress and enable individuals to cope better. They also assist individuals to bounce back from adversity (Roberson & Cooper, 2011).

There is a paucity of research on sense of coherence, emotional intelligence and burnout as wellness-related dispositional attributes. This study will add to the knowledge on the relevance of the relationship between sense of coherence, emotional intelligence and burnout to the construction of a psychological-behavioural coping profile.

3.6 CHAPTER SUMMARY

Chapter 3 addressed part of the second research aim, namely, the conceptualisation of the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout). Firstly, the conceptual foundations of sense of coherence, emotional intelligence and burnout as wellness-related dispositional attributes were discussed, followed by an exploration of a model of sense of coherence conceptualised in terms of the salutogenic theory (Antonovsky, 1987). Emotional intelligence was conceptualised in terms of the Mayer and Salovey model (1997), Goleman's emotional intelligence competencies model (2001) and Bar-On's mixed model (2002). Burnout, on the other hand, was conceptualised in terms of the conservation of resources model (Hobfall & Shirom, 1993), and the job demands and

resources model (Demerouti et al., 2001). Finally, the implications of wellness-related behavioural attributes for organisational wellness interventions were highlighted.

Chapter 4 addresses part of the second research aim, namely, the conceptualisation of the resiliency-related behavioural capacities (career adaptability and hardiness) by means of an exploration of the research literature and theoretical models.

CHAPTER FOUR: RESILIENCY-RELATED BEHAVIOURAL CAPACITIES

Chapter 4 addresses part of the second research aim, namely, to conceptualise the constructs of resiliency-related behavioural capacities (career adaptability and hardiness), and how these are conceptualised and explained by theoretical models in the literature. Finally, the implications of the resiliency-related behavioural capacities for coping and wellness strategies in a call centre environment are assessed.

4.1 CONCEPTUALISATION OF RESILIENCY-RELATED BEHAVIOURAL CAPACITIES

Whereas the wellness-related constructs (sense of coherence, emotional intelligence and burnout) relate to resources for psychological wellbeing, the career adaptability and hardiness constructs relate to adaptive resources (i.e. the ability to cope in stressful and uncertain contexts). Career adaptability encompasses the attitudes, competencies and behaviours that individuals use to fit themselves into careers that suit them. This involves a series of attempts and a sequence of matching decisions (Ferreira, 2012). Hardiness is viewed as a resiliency-related behavioural capacity by means of which individuals have a constellation of personality characteristics that function as resistance resources in the encounter with stressful life events (Kobasa, Maddi & Kahn, 1982).

The aim of this research is to develop a deeper understanding of how wellness resources influence individuals' adaptive (or resiliency) resources. The basic proposition is that well-developed wellness resources may enhance the individual's resiliency, that is, capacity to adapt with greater ease to stress and uncertainty in the work environment.

4.1.1 Conceptualisation of career adaptability

Career adaptability is defined as the readiness to cope with the predictable task of preparing for, and participating in the work role and with the unpredictable adjustments prompted by changes in work and working conditions (Savickas, 1997). The concept of career adaptability evolved from the career construction theory (Savickas, 2005), which views adaptation as transitions fostered by the following five principle types of behaviour: (1) orientation; (2) exploration; (3) establishment; (4) management; and (5) disengagement. These constructive activities form a cycle of adaptation that is periodically repeated as new

transitions appear on the horizon (Ferreira, 2012). Adaptability involves an individual to negotiate new or changed circumstances which includes competence and motivation and a series of attempts to implement a self-concept through a sequence of matching decisions especially when confronted by unfamiliar situations and having the ability to respond to these changes with success (Ferreira, 2012; Havenga, 2012).

4.1.2 Conceptualisation of hardiness

According to Kobasa (1979; 1983), who defined hardiness as a resistance resource in the encounter with stressful situations which consist of personality characteristics that function as flexible resources during the encounter of demanding life events. The concept of hardiness evolved from existential psychology. It is viewed as humans in search for authenticity by creating personal meaning through self-reflection, decision making and actions that promote growth (Kobasa, 1979; Maddi & Kobasa, 1984). Kobasa (1979) conceptualised hardiness in terms of three personality characteristics, namely, control (motivation to engage in effortful coping), commitment (feeling of excitement and to remain engaged during difficult times) and challenge (regards change as normal aspect of life rather than a threat).

Table 4.1 summarises the definition of wellness in relation to the resiliency-related behavioural capacities namely, career adaptability and hardiness.

Table 4.1: *Summary of Resiliency-Related Behavioural Capacities*

Resiliency-related behavioural capacities	Definition	Definition of wellness
Career adaptability	Readiness to cope with the predictable task of preparing for, and participating in the work role and with the unpredictable adjustments prompted by changes in work and working conditions	Individuals negotiate new circumstances which include competence and motivation and a series of attempts to implement self-concept through a series of matching decisions
Hardiness	Defined as a resistance resource in the encounter with stressful situations	Humans search for authenticity by creating personal meaning through self-reflection, decision making and actions that promote growth

4.2 THEORETICAL MODELS

In the context of this study, the theoretical model of career adaptability by Savickas & Porfeli, (2012), is applicable as well as the theoretical model of hardiness by Kobasa, (1979).

4.2.1 Theoretical model of career adaptability

The construct of career adaptability forms an integral part of the career construction theory (Ferreira, 2012; Savickas & Porfeli, 2012). According to Savickas and Porfeli (2012), career construction theory conceptualises human development as being driven by adaptation to a social environment with the goal of person-environment integration. The career construction model of adaptation concentrates on only the work role in that it addresses social expectation. In this regard individuals prepare for, enter and participate in world of work and subsequently deal with career transitions between occupational positions (Ferreira, 2012; Savickas & Porfeli, 2012). There are varying states of activation in individuals with relative changes in person-environment harmony being the cause and consequence of activation (Creed, Fallon & Hood, 2010; Savickas & Porfeli, 2012).

People construct careers by using adaptive strategies that implement their personalities at work. This adaptation is motivated by the goal of bringing inner needs and outer opportunities into inner harmony (Savickas & Porfeli, 2012). When conditions change, individuals perform adaptive behaviours which involve mastering vocational development tasks, coping with occupational transitions and traumas through a process of orientation, exploration, establishment, management and disengagement (Ferreira, 2012; Savickas & Porfeli, 2012). These constructive activities form a cycle of adaptation that is periodically repeated as the individual must fit into a changing context (Ferreira, 2012; Savickas & Porfeli, 2012).

In terms of career construction theory, adaptivity is viewed as the willingness to change. Adaptiveness, on the other hand, occurs when individuals are willing to meet career disequilibrium or transitions with fitting responses, which include initiating the interpersonal and intrapersonal processes that guide goal-directed activity. This will be attained when the individual can no longer assimilate the changes and persevere in routine activities (Savickas & Porfeli, 2012). This results in the individual changing the self, the context or both. This

prompts feelings of distress thereby fuelling motivation and bolstering the willingness to adapt (Savickas & Porfeli, 2012).

Career adaptability is a psychosocial construct that involves an individual's resources for coping with current and anticipated tasks, transitions and traumas in their occupational roles and that can alter their social integration (Savickas & Porfeli, 2012). Career adaptability, as an important set of personal resources, is believed to exert a strong impact on career or work-related outcomes, such as success in the workplace, job satisfaction and job tenure. Specific skills or mechanisms included or encapsulated in adaptability, such as coping skills or emotional regulation mechanisms, are related by these outcomes. Adaptability and its components are conceived as resources or abilities allowing individuals to adjust their behaviours to the constraints (Rossier, Zecca, Stuafter, Maggiori & Dauwalder, 2012).

According to Savickas and Porfeli (2012), adaptability is viewed as human capital, which is what a person knows. Psychological capital where an individual's positive psychological state of development is characterised by (1) having confidence (self-efficacy) to put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering towards goals and when necessary redirecting paths to goals (hope) in order to succeed; and (4) when confronted by problems and adversity, to bounce back and even beyond (resiliency) to attain success (Savickas & Porfeli, 2012). Adaptabilities develop through interaction between the inner and outer worlds of the person. Career adaptability is viewed as a self-regulatory, psychosocial competency that shapes adaptive strategies and actions aimed at achieving adaptation goals. Higher levels of adaptation (outcome) are expected for those who are willing (adaptive) and able (adaptability) to perform behaviours that address changing conditions (adapting) (Rossier et al., 2012; Savickas & Porfeli, 2012).

Career adaptability operates on three levels (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012):

- Personality – indicating intra-personal characteristics such as proactivity, the willingness to seek out new contexts and opportunities.
- Psychosocial competence – related to psychosocial aspects where the development in career adaptive competencies could make a difference to how easily a person forms relationships that support transitions constructively.

- Actual experience (behaviours) – related to individuals' ability to self-regulate the learning required to accommodate a changing, sometimes volatile labour market, where individuals take responsibility for, and control of, their own learning which is typically triggered by the anxiety produced by either anticipated or unexpected events.

Anxiety motivates the individual to engage in adaptive behaviours that reduce the disorientation created by a changed or changing context and help to demonstrate autonomy. This does not always happen, as there is a risk that individuals become detached or disillusioned, become stuck or suffer downward career drift (Savickas & Porfeli, 2012). The adaptive behaviours required for positive change are likely to involve tackling a series of interrelated problems, as the individual works towards achieving an ultimate goal that is consistent with their values, interests, abilities and aspirations.

The model by Buchner (2007), in figure 4.1 below, explains how an adaptive person engages internally as well as externally with the environment. It displays an individual as being concerned about their vocational future and displaying curiosity by exploring future scenarios (Savickas & Porfeli, 2012). Figure 4.1 illustrates the adaptation of individuals with the environment in terms of their career.

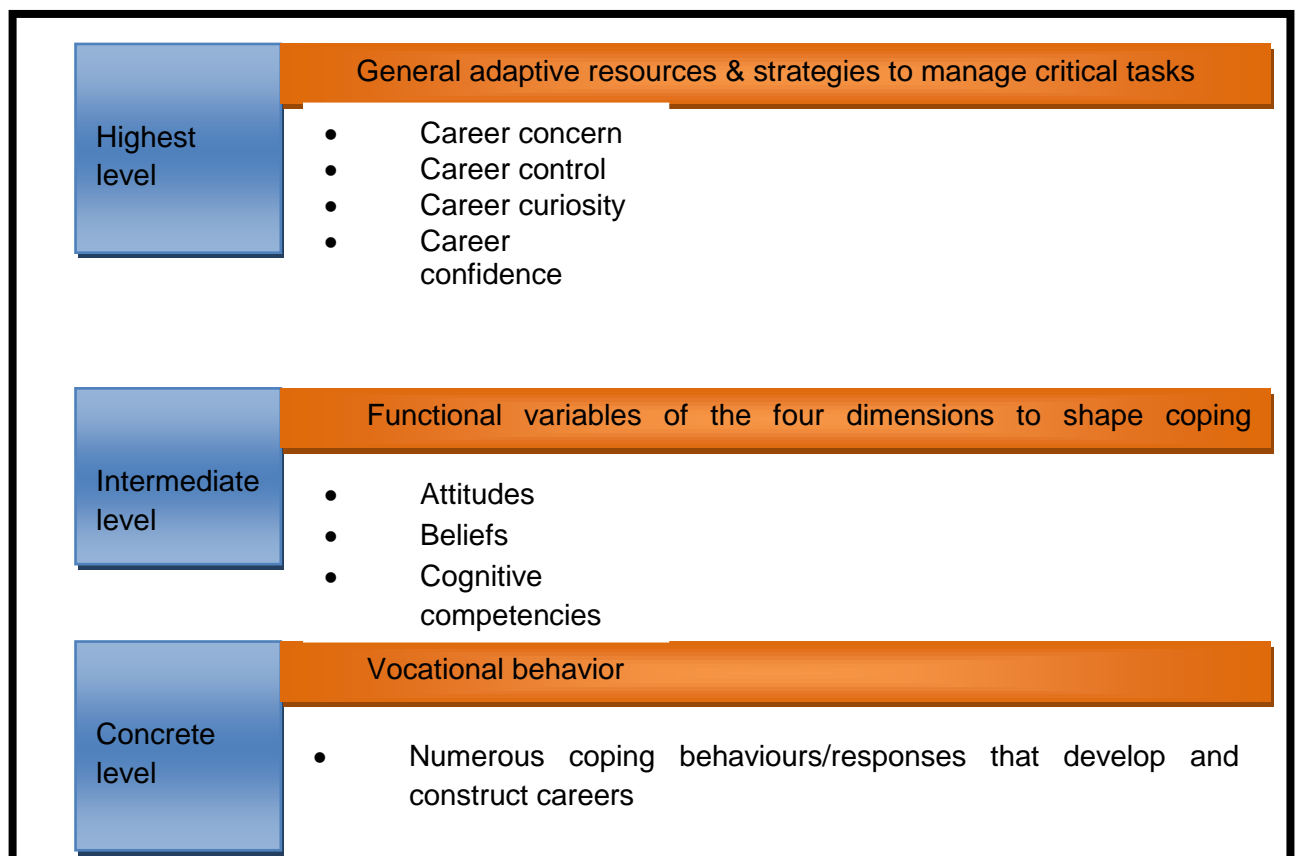


Figure 4.1. Adaptation of individuals with environment: Source: Buchner (2007, p. 78)

The individual is concerned about his or her future, which is viewed as a pivotal trigger in career adaptability. Hence, the individual is aware of the importance of future planning and an attitude of planfulness and optimism foster a sense of concern (Rossier et al., 2012). This leads to the individual reflecting subjectively on experiences, how the past links to the present and, thus, how it will probably link to a preferred future experience. Career construction is a result of this realisation of how the present, past and future integrate to give the individual a sense of continuity (Rossier et al., 2012). The individual then activates planful attitudes and beliefs to promote their competencies (Rossier et al., 2012)). When an individual is markedly more apathetic, pessimistic and planless about the future then this is regarded as career indifference which is the opposite to career concern (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012).

Career control occurs when individuals are responsible for constructing their careers. Accordingly, attitudes of assertiveness and decisiveness prompt individuals to engage with vocational development tasks and occupational transitions. By contrast, the opposite of career control is career indecision or the inability to choose, which is indicative of

procrastination and avoidance behaviours (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012).

Career curiosity is seen when the individual explores and seeks new information about a career. The individual will continuously explore ways to increase the fit between the self and the environment. He or she will be predisposed to be open to new experiences and this process increases self-knowledge and occupational information, which leads to more exposure and brings a sense of realism and objectivity. The opposite to career curiosity is naiveté about the world or work (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012).

Career confidence deals with overcoming challenges and obstacles, which allows individuals to engage with complex problems in the belief that they can solve them. Individuals with confidence construct their careers with a sense of self-efficacy, believing that they have the ability to successfully execute a course of action when choosing suitable careers (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012). Exposure facilitates this process which is moderated by learned belief systems around race, gender and social roles. The opposite of career confidence is inhibition in terms of which individuals do not actualise their career goals (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012).

Table 4.2 below provides a summary of the discussion so far.

Table 4.2: *Career Adaptability Dimensions (Buchner, 2007, p. 80)*

Dimension	Attitudes & Beliefs	Competence	Coping behaviours
1. Concern	Planful	Planning	Aware Involved Preparatory
2. Control	Decisive	Decision making	Assertive Disciplined Willful
3. Curiosity	Inquisitive	Exploring	Experimenting Risk-taking Inquiring
4. Confidence	Efficacious	Problem solving	Persistent Striving Industrious

Higher levels of adaptability enhance sense of belonging, which relates to job embeddedness. Job embeddedness occurs when individuals have multiple links to the people in the employing organisation and non-work community and when the workplace and the community environment are a good fit for the individual (Ferreira, 2012). Therefore, job embeddedness relates to employee retention in that individuals feel they have to sacrifice too much to leave the organisation and/or the community (Ferreira, 2012). In a call centre environment employees are drawn together to create informal communities of coping. Socially supportive behaviour is emblematic in a call centre work environment and resources such as the quality of interpersonal relationships and strong social support can assist the individual to deal better with stressful job environments (Consiglio et al., 2013).

In summary career adaptability is viewed as a psychosocial construct that involves human development driven by adaptation to a social environment and the willingness to change. Individuals adapt internally and externally to the environment.

4.2.2 Theoretical model of hardiness

The hardy personality is described by three attitudes namely: control, commitment and challenge. These personality characteristics depict deeply held beliefs that influence the way people interpret stressful events (Kobasa, 1979).

Control relates to a person's beliefs about their ability to influence or manage life events. The opposite of control is powerlessness (Kobasa, 1979). Commitment refers to active engagement in daily living and having a purpose in life (Kobasa, 1979). The opposite of commitment is alienation. Challenge is considered as a normal part of living and as having the opportunity for growth and development. The opposite of challenge is threat (Ferreira, 2012).

When combined, these three qualities of stress resistance moderate the effects of stress by changing one's perception of a given situation and lessening the negative impact of stressful life events by influencing cognitive appraisal and the ability to cope (Ferreira, 2012; Latif, 2010). Hardiness has direct and indirect (mediating) effects on health outcomes. As a mediator, hardiness promotes the use of social resources so as to facilitate 'transformational coping' and is an approach to managing stressful life events that results in less strain and, ultimately, reduced, illness and enhanced wellbeing (Kobasa, 1979). Transformational coping involves changing stressful life events by viewing them optimistically (Kobasa, 1979). As shown in figure 4.2, this is reflected in identifying new ways of managing situations, developing and coping as well as the planning of actions. In contrast, 'regressive coping' involves avoiding experiences with stressful life events and thinking about them pessimistically (Ferreira, 2012; Latif, 2010).

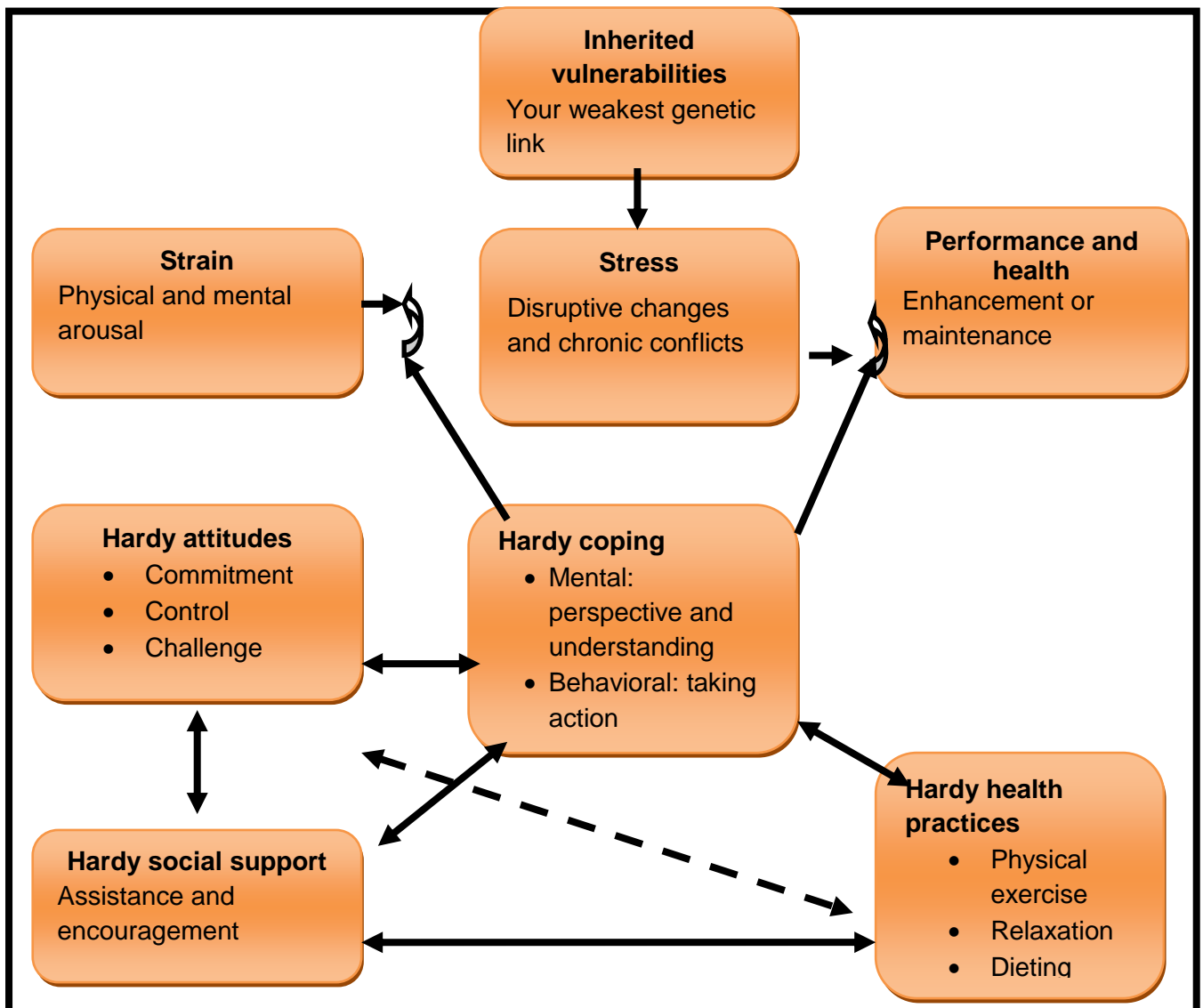


Figure 4.2: The hardiness model for performance and health enhancement Source: Maddi (2004)

According to the hardiness model for performance and health enhancement, individuals high in hardy attitudes show an active pattern of coping with stressful circumstances by facing them (rather than being in denial) and struggling to turn them from potential disasters into opportunities (rather than avoiding them or blaming others) (Maddi & Kobasa, 1984). In a social environment, hardy individuals were more involved in building patterns of interaction with their significant others that emphasised mutual assistance and encouragement, rather than undermining competition or overprotection (Maddi & Kobasa, 1984). Also, hardy

individuals took pains to care for their bodies by eating well, engaging in relaxation procedures and exercising (Maddi & Kobasa, 1984). The conclusion reached was that, under stress, the courage contained in the hardy attitudes provided the strength and motivation to do the hard work of transformational coping, supportive social interactions and facilitative self-care (Azeem, 2010; Delhaji, Gallaird & Van Dam, 2010; Ferreira, 2012; Hystad, Eid, Johnson & Bartone, 2010; Latif, 2010; Zhang, 2010).

Figure 4.2 shows the overall view of hardiness as an enhancer of health and performance under stress. As acute stresses (changes) and chronic stresses (continuing conflicts) mount, the organism's strain increases (Maddi & Kobasa, 1984). Strain (a momentary example of which is the 'fight or flight' reaction) involves heightened sympathetic nervous and endocrine system arousal, the mental expressions of which include impatience, lack of concentration and impaired memory (Ferreira, 2012; Latif, 2010). If this elevated strain is not moderated by how one responds to the stresses, the ensuing physical exhaustion may result in breakdowns in physical and mental health, and in performance (Ferreira, 2012). Such breakdowns are likely to take place along the lines of genetic weaknesses (Maddi & Kobasa, 1984). Typical physical health breakdowns are the 'wear and tear' disorders (e.g. heart disease, strokes, cancer, Alzheimer's disease). Mental health breakdowns include debilitating depression, anger and anxiety disorders. Performance inadequacies include inability to meet deadlines, follow orders, reach goals, take the initiative, be a leader, think constructively, play by the rules, and give needed empathy (Maddi & Kobasa, 1984). However, this debilitating process is not as likely to happen if the person is high in hardiness, as shown in the remaining portions of figure 4.2. Hardy attitudes provide the courage and motivation to engage in the difficult but essential tasks of socially supportive interactions, transformational coping and felicitous self-care (Maddi & Kobasa, 1984). Through hardy self-care, strain can be moderated, making it more possible to think through and carry out the necessary coping and social interaction efforts (Maddi & Kobasa, 1984). Through hardy coping actions, the stressfulness of events can be diminished by turning changes to advantage and resolving conflicts (Ferreira, 2012). Through hardy social interactions, one can deepen relationships with significant others by giving and getting assistance and encouragement. The end result of such a hardy person includes, over time, the full expression of one's capacities, learning from both positive and negative experiences, and growing in vitality, fulfilment and wisdom (Ferreira, 2012).

Research conducted by Latif (2010) on call centre employees has indicated that call centre agents revealed a much higher level of hardiness, which suggests call centre agent's who are more committed and in control and have a minimised perception of threat in any given situation, display the ability to handle and control their destiny.

In summary, hardiness relates to personality by three attitudes which depict deeply held beliefs that influence how people interpret stressful events. These attitudes change perception and lessen negative impact of stressful life's events.

4.3 Person-centred variables influencing career adaptability and hardiness

4.3.1 Career adaptability

4.3.1.1 Age

In research conducted by Rossier et al. (2012) and Ferreria (2012) it was found that age did not have an impact on career adaptability.

4.3.1.2 Gender

Women tend to score higher on the career adaptability scale than men (Rossier et al., 2012), the reason being that women face more social barriers than men. Research conducted by Ferreira (2012) suggests that females score higher than males, which suggests that females are better at decision making in terms of their careers than males.

4.3.1.3 Race

According to research conducted by Ferreira (2012), black women score higher on control which suggests they prefer working in conditions that they can take control; this, in turn, could boost their confidence.

4.3.1.4 Marital status

Research conducted by Ferreira (2012) revealed that widowed participants showed lower scores than married participants regarding the curiosity dimension of career adaptability.

This suggests that married participants are more career adaptable than single participants. Participants who were divorced revealed higher levels of hardiness, especially commitment, which suggest individuals' commitment to the organisation or their careers.

4.3.2 Hardiness

4.3.2.1 Age

In research conducted by Ferreria (2012), young participants scored higher on hardiness which suggests higher levels of commitment to the organisation. Research conducted by Latif (2010) reveals higher levels of hardiness in early career call centre agents, which suggest young people can handle their own destiny and maintain control over it.

4.3.2.2 Gender

Research conducted by Latif (2010) in a call centre reveals a higher level of hardiness among males than females. According to research conducted by Ferreira (2012), males showed a higher level of the hardiness dimension of commitment in terms of their careers than females, which suggests that males are more committed to their careers than females.

4.3.2.3 Race

In research conducted by Ferreira (2012), it was found that black women revealed higher levels on the hardiness dimension of challenge, which suggests that they are motivated and thrive on challenge such that they become catalysts in their environment and will be more committed to the organisation.

4.3.2.4 Marital status

Research conducted by Ferreira (2012) showed that widowed participants scored lower on hardiness than married participants, while single participants scored higher on hardiness than married participants.

Table 4.3 summarises the resiliency-related behavioural capacities biographical details.

Table 4.3: *Summary of Resiliency-Related Behavioural Capacities Biographical Details*

Resiliency-related behavioural capacities (biographical)	Core conclusion
Career adaptability	
Age	Age does not seem to have an impact on career adaptability
Gender	Women tend to score higher on career adaptability as a result they tend to be better at decision making with regards to their career
Race	Black women tend to be more career adaptable which suggest they tend to be in control of their career
Marital status	Married individuals are more career adaptable than single individuals
Hardiness	
Age	Younger participants scored higher on hardiness which suggest they can handle and maintain their own destiny
Gender	Males tend to show more commitment than women with their careers
Race	Black women revealed higher commitment than other race groups
Marital status	Married individuals have a higher score on hardiness than single individuals

4.4 IMPLICATIONS OF THE RESILIENCY-RELATED CAPACITIES FOR COPING AND WELLNESS INTERVENTIONS IN A CALL CENTRE ENVIRONMENT

A psychological coping profile could contribute to a clearer understanding of work wellness. This would require an integration of the resiliency-related behavioural capacities for coping and wellness strategies. Resilience refers to the ability to adapt and be successful under difficult or challenging circumstances (Hutchinson et al., 2010). Resilience occurs when individuals perceive themselves to be resilient and able to cope with the difficulties and challenges in life (Hutchinson et al., 2010). Resilience has its roots in theoretical models of positive psychology that seek to explore factors that enable individuals to successfully overcome adversity (Hutchinson et al., 2010).

There are multiple risk factors or stressors in given situations, and there are multiple indicators of positive adaptation. Resilient individuals have the potential not only to return to previous levels of functioning after experiencing adversity, but manifest gains in self-esteem, self-efficacy, autonomy and a change in life perspective that serve to make them stronger than they were before (Hutchinson et al., 2010). Such gains in adaptive behaviour have been termed 'thriving' or 'flourishing' (Hutchinson et al., 2010). Resilience is the capacity for recovery and maintained adaptive behaviour that may follow initial threat or incapacity upon encountering a stressful event or manifesting competence, despite exposure to significant stressors (Hutchinson et al., 2010). Resilience is a multidimensional construct and is used in this study as an overarching umbrella term operationalised by measures of specific facets of psychosocial wellbeing (Hutchinson et al., 2010). For the purposes of this study, resilience is conceptualised in terms of career adaptability and hardiness, which are described in the literature as characteristics of resilient people (Savickas & Porfeli, 2012). For individuals, adaptation to social life implicates all core and peripheral roles. As people design their lives, they must adapt to expectations in their work and play and develop relationships (Savickas & Porfeli, 2012). A hardy personality style encourages coping. Hardiness is viewed as offering resistance to the effects of stressful situations, occurrences and environments (Latif, 2010).

Figure 4.3 illustrates the integration of the resiliency-related behavioural capacities and the psychological dimensions.

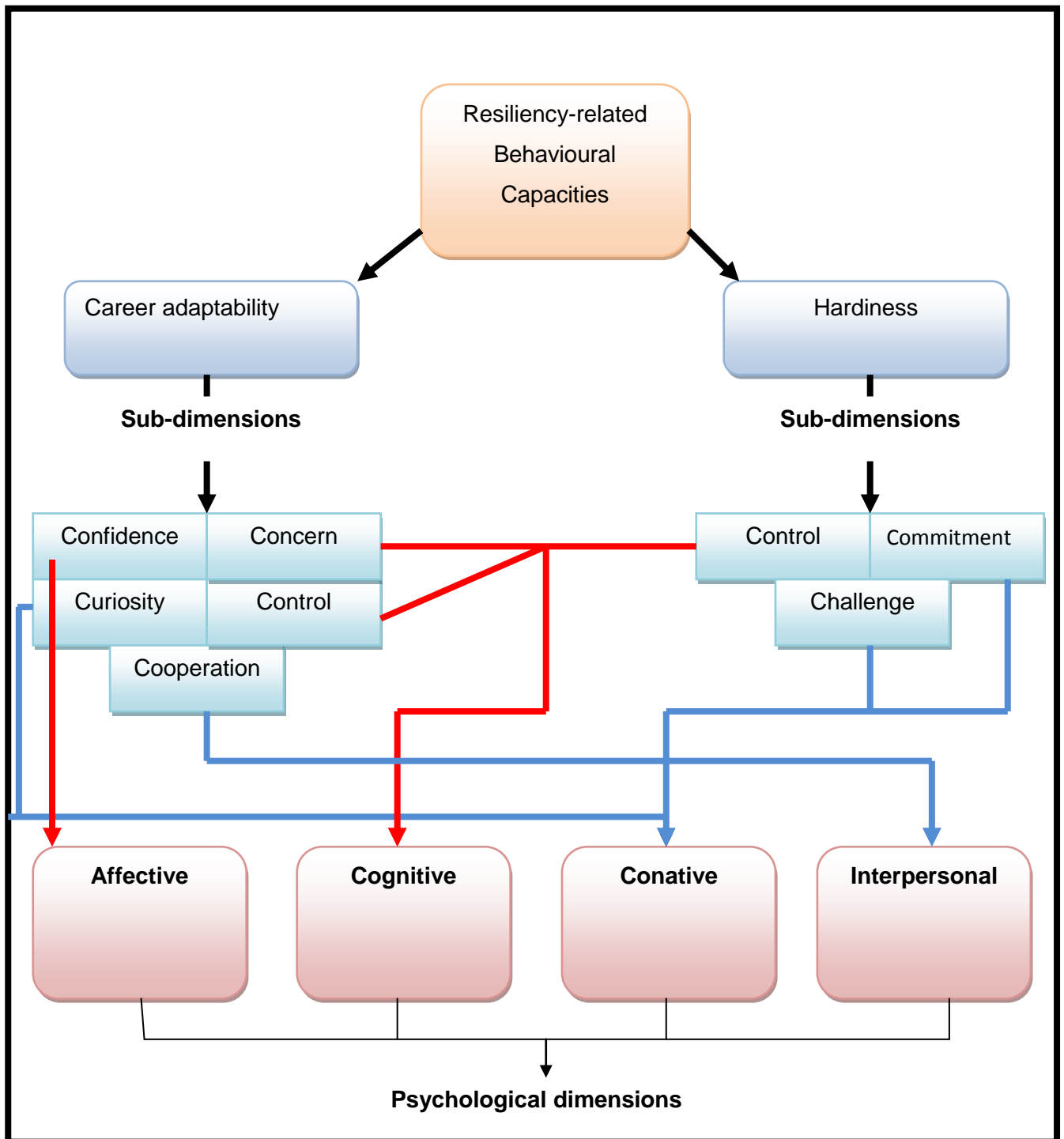


Figure 4.3: Integration of resiliency-related behavioural capacities and psychological dimensions

Figure 4.3 gives an overview of the psychological behavioural dimensions underpinning the constructs of career adaptability and hardiness.

4.4.1 Career adaptability

Career adaptability consists of five behavioural dimensions, namely, concern, control, curiosity and confidence, commitment and cooperation. On a **cognitive level**, individuals show concern and control over their careers. The coping behaviours adopted by individuals are heightened self-awareness, involvement and preparation (planning). This results in individuals increasing their control over their careers, thus resulting in individuals being more assertive, disciplined and wilful (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012).

On an **affective (emotional) level**, highly career adaptable individuals will display a curiosity about and keenness to explore possible selves and futures. The coping behaviours adopted are experimentation, risk-taking and enquiring (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012). On a **conative (motivational) level**, career adaptability will reflect a high level of confidence in pursuing one's career aspirations. Typical coping (adaptive) behaviours are the knack to be industrious, persistent and a continuous striving for success (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012). On an **interpersonal level**, individuals cooperate with others and capitalise on social opportunities for career success (Ferreira, 2012). Table 4.4 provides a visual representation of the resiliency-related behavioural capacities of career adaptability and the psychological-behavioural dimensions

Table 4.4: *Visual Representation of the Career Adaptability Resiliency- Related Behavioural Capacities*

Psychological-behavioural dimensions	Resiliency-related behavioural capacities				
	Career adaptability				
	Concern	Control	Curiosity	Confidence	Cooperation
	COPING STRATEGIES				
Cognitive	Individuals are concerned and are involved and are prepared to exert more control over their careers.				
Affective	Individuals display a curiosity about and keenness to explore possible selves and futures.				
Conative	Demonstrating a high level of confidence in pursuing one's career aspirations. Typical coping (adaptive) behaviours are the knack to be industrious, persistent and a continuous striving for success				
Interpersonal	Cooperating with others and capitalising on social opportunities for career success				

4.4.2 Hardiness

Hardiness consists of three behavioural dimensions, namely, control, commitment and challenge. On a **cognitive level**, individuals exert control over and/or influence life events by changing their perception of a given situation thereby leading to the ability to cope. On an **affective level**, individuals feel actively involved in their experience rather than feeling estranged. On a **conative (motivational) level**, individuals commit to active engagement in daily living, have a purpose in life and view challenges as a normal part of living. On an **interpersonal level**, individuals can modify and reduce stress to be more manageable; consistency exists between one's actions and emotions and external events. Table 4.5 provides a visual representation of the resiliency-related behavioural capacities of hardiness and the psychological-behavioural dimensions.

Table 4.5: *Visual Representation of the Hardiness Resiliency-Related Behavioural Capacities*

Psychological-behavioural dimensions	Wellness-related attributes		
	Hardiness		
	Commitment	Control	Challenge
	COPING STRATEGIES		
Cognitive	Individuals exert control over and/or influence life events by changing their perception of a given situation thereby leading to the ability to cope		
Affective	Individuals feel actively involved in their experiences rather than feeling estranged.		
Conative	Individuals commit to active engagement in daily living and have a purpose in life.		
Interpersonal	There is consistency between one's own actions and emotions and external events.		

In summary, cognitively individuals have a heightened self-awareness of their careers which results in increasing their control over it. When an individual displays curiosity on an effective level they adopt coping behaviour, by exploring possible selves and futures. Thereafter an individual will become confident on a conative level to pursue one's career aspirations. Individuals capitalise on social opportunities for career success on an interpersonal level.

In terms of hardiness, individuals exert control over life's events on a cognitive level by changing perceptions, they then feel involved in their experiences on an affective level and commit and become actively engaged in daily living on a conative level. Individuals thereafter can modify stress by obtaining a consistency between one's actions and emotions and external events on an interpersonal level.

4.5 INTEGRATION AND EVALUATION

Resilient people are more likely to use creative problem-solving strategies and are more curious and open-minded (Hutchinson et al., 2010). In this study resilience is viewed as adaptability and hardiness.

Adaptability is the predisposition or propensity to consciously and continually maintain the integration of a person and the environment. Adaptive motivation includes response learning and integrative potential. Adapting to changing career circumstances is the ability to handle the stress of a new career context (Hirschi, 2012). Hardiness can be viewed as the collection of personality characteristics that function as flexible resources (Ferreria, 2012).

In terms of career adaptability on a cognitive level, an adaptive person will indicate concern over their career which in turn result in them becoming involved and having control over it. On an affective level, individuals will display curiosity and explore selves to develop enough confidence on a conative level. Individuals will pursue their aspirations and display cooperation about themselves and social opportunities on an interpersonal level.

On a cognitive level hardy individuals display control or influence over life's events and their changing perceptions. They feel actively involved on an affective level, thereby having a purpose. Individuals view challenges as normal on a conative level. Thereafter individuals interpersonally modify stress between ones action and external events.

There is paucity of research on the career adaptability of call centre agents. Therefore this research will add knowledge of the way call centre agents adapt their career in a call centre work environment. Although there is research into hardiness of call centre agents that exists, there is a need for more research on hardiness in relation to career adaptability as resiliency-related behavioural capacities. This research will add knowledge on the way the concepts of career adaptability and hardiness relate to the construction of a coping profile.

Herewith research aim 2 of the literature review has been achieved, namely to conceptualise the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness) by means of theoretical models in the literature.

4.6 CONSTRUCTING A PSYCHOLOGICAL COPING PROFILE

This section addresses the following literature research aims:

Research aim 3: To conceptualise the nature of the theoretical relationship between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness) and explain this relationship in terms of an integrated theoretical model.

Research aim 4: To propose a hypothetical theoretical psychological coping profile for call centre agents based on the theoretical relationship dynamics between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness).

Research aim 5: To critically evaluate the implications of a psychological coping profile for organisations' wellness practices in the call centre environment.

This section will discuss the contextual integration of the wellness-related dispositional attributes and the resiliency-related behavioural capacities, as well as the theoretical relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities with a view to constructing a theoretical psychological coping profile.

4.6.1 Psychological behavioural dimensions: wellness-related dispositional attributes

Devi (2012) distinguishes between two types of coping resources, internal and external resources. In terms of internal resources, individual resources are seen as those dispositional factors that exist within each individual, such as personalities, personal styles and ways of looking at problems. Sense of coherence, emotional intelligence and burnout are all regarded as wellness-related dispositional attributes because they are viewed as internal individual dispositional resources to which individuals have access for solving problems.

Call centre agents experience a wide range of stressors and the impact of these stressors on the lives of employees adversely affects the effectiveness of an organisation. According to the theory of flourishing, there are universal psychological needs, such as the need for competence, relatedness and self acceptance (Diener et al., 2010). Other theories suggest that social capital is basic to the wellbeing of societies (Diener et al., 2010). The concepts of flow, interest and engagement form the basis of psychological capital. Further, optimism is viewed as important to successful functioning and wellbeing (Diener et al., 2010). Flourishing includes having supportive and rewarding relationships, contributing to others and being respected by others, as well as having a purposeful, and meaningful life and being engaged and interested in one's activities (Diener et al., 2010). Flourishing individuals have enthusiasm for life and are actively and productively engaged with others and in social institutions. They are viewed as being in a state of wholeness where a person can deal with stressors in an effective way and maintain wholeness when interacting positively with their environment (Koen, Van Eeden & Wissing, 2011).

4.6.1.1 Wellness-related dispositional attribute: sense of coherence

The movement towards a positive psychological approach and away from a pathogenic paradigm has led to the development of the construct of sense of coherence (Antonovsky, 1987). The sense of coherence construct comprises three underlying components, namely, comprehensibility, manageability and meaningfulness (Antonovsky, 1987). Sense of coherence is conceptualised as a global orientation that expresses the extent to which one has a pervasive, enduring – although dynamic – feeling of coherence manifesting in three behavioural experiences.

The first experience refers to the extent that stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable. This is called comprehensibility, that is, where the individual makes sense of stimuli in the environment (Wissing et al., 2010). The second experience refers to the belief that resources are available to one to meet the demands posed by these stimuli (Marx, 2011). This is called manageability, that is, where the individual is able to cope with the demands of the environment. The last experience refers to the belief that these demands are challenges worthy of investment, that is, where the individual is able to identify emotionally and commit effort to handling these demands – otherwise referred to as meaningfulness (Bezuidenhout & Cilliers, 2010; Harry & Coetzee, 2011; 2002; Harry, 2011; Hutchinson, Stuart & Pretorius,

2010). Sense of coherence has been defined as a relatively stable disposition (Antonovsky, 1987). In terms of the present study, sense of coherence is regarded as an overall construct that represents individuals' resilience as an aspect of their personal resources when dealing with the demands and stressors of a call centre environment (Consiglio et al., 2013).

4.6.1.2 Wellness-related dispositional attribute: emotional intelligence

Emotional intelligence is viewed as a subset of social intelligence which involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions. It involves being able to observe, recognise and understand one's own emotions and the emotions of others and to make a distinction between one's own emotions and those of others (Devonish & Greenidge, 2010; Rangriz & Mehrabi, 2010; Shaemi et al., 2011; Van Zyl & De Bruin, 2012). People who are emotionally and socially intelligent are able to understand and express themselves and to understand and relate well to others, as well as to cope successfully with the demands of daily life.

Emotional intelligence can be defined as the ability to recognise one's emotions, as well as those of others, and as the ability to manage one's emotions, as well as those of others (Devonish & Greenidge, 2010; Rangriz & Mehrabi, 2010; Shaemi et al., 2011; Van Zyl & De Bruin, 2012). The concept appears to have originated from two seemingly divergent concepts, namely, emotion and intelligence. Emotion is viewed as organising and motivating by nature, in contrast to the more traditional view of emotion as chaotic, disorganising and interfering in human behaviour. Intelligence can be seen as a multiple construct constituting intrapersonal and interpersonal intelligence. The combination of interpersonal and intrapersonal intelligence is referred to as personal intelligence (Devonish & Greenidge, 2010; Rangriz & Mehrabi, 2010; Shaemi et al., 2011; Van Zyl & De Bruin, 2012).

4.6.1.3 Wellness-related dispositional attribute: burnout

Burnout was originally defined as a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment occurring among individuals who do "people work" (Bezuidenhout & Cilliers, 2010). Burnout can be viewed as a crisis in one's relationship with work – not necessarily as a crisis in one's relationship with people at work (Lent & Schwartz, 2012). Burnout is also viewed as a persistent, negative, work-related state of mind in

“normal” individuals that is characterised primarily by exhaustion, and accompanied by distress, a sense of reduced competence, decreased motivation and the development of dysfunctional attitudes at work (Hultell & Gustavson, 2011; Lent & Schwartz, 2012; Choi & Jin, 2012; Yürür & Sarikaya, 2012).

4.6.2 Resiliency-related behavioural capacities

Career construction theory conceptualises human development as driven by adaptation to a social environment with the goal of person–environment integration (Savickas & Porfeli, 2012). This theory takes a contextual and cultural perspective on social adaptation and niche-making. As people design their lives, they must adapt to the expectations that they work, play and develop relationships. Career agents have become more flexible, as they have to choose between taking the route of traditional and existing paths or creating their own (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012). By choosing the more contemporary form of career, career agents are choosing to engage with many organisations and many careers before they retire (Ferreira, 2012). One example of this is call centre employment, which has become typical of increasingly flexible employment relationships and work patterns, and potentially weak commitment ties to careers and organisations (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012). The new deal of the career agent is that he or she is now taking responsibility for his or her career and defining success as an inner feeling of achievement (Ferreira, 2012). Employees’ own conceptions of their work as a “career” is implicitly rather than explicitly questioned by the findings of much of call centre research (Consiglio, 2013). Such research has tended to focus on the call centre labour process, the routine, repetitive and stressful nature of the work and the totality of management control (Consiglio et al., 2013). According to Savickas and Porfeli (2012), the career agent can manipulate attitude, competencies and behaviours to optimally fit him- or herself into suitable working contexts so as to adapt a resiliency-related behavioural capacity in which the career agent becomes aware of or anticipates the future and sees the importance of planning for it (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012).

4.6.2.1 *Resiliency-related behavioural capacity: career adaptability*

Adaptability has been proposed as a career meta-competency (or meta-capacity), which along with personal identity forms the core of a protean career. It is, at its core, the capacity to change, including both the competence and the motivation to do so (Ferreira, 2012).

Career development is in the midst of two extremes: one extreme refers to the more conventional career which represents predictable career paths, security and linear progression, while the other extreme represents the constantly changing, fluid, unpredictable career marked by insecurity (Savickas & Porfeli, 2012). Career resilience is defined as the ability to adapt to changing circumstances as opposed to “psychological fragility” or career vulnerability (Ferreira, 2012). This encompasses the ability to cope with negative work situations, to demonstrate initiative, to structure problems and to strive to maintain quality of performance despite situational barriers (Ferreira, 2012). In order to overcome career barriers, an adult should not merely understand himself and his work environment (career insight) and follow a set of goals (career identity), but should also have the ability to conquer difficult work situations, of which job insecurity is but one example (Ferreira, 2012; Rossier et al., 2012). Resilience develops insight which, in turn, develops identity – conditions in the changing world of work should be met with coping skills, including career adaptability, which implies the ability to complete a vocational development task successfully (Ferreira, 2012; Rossier et al., 2012; Savickas & Porfeli, 2012).

4.6.2.2 Resiliency-related behavioural capacity: hardiness

Hardiness develops in early childhood and emerges as the result of rich, varied and rewarding life experiences (Azeem, 2010). According to Ferreira (2012), the effects of hardiness on mental health are mediated by the individual’s cognitive appraisal of a stressful situation and his/her repertoire of coping strategies. Specifically, hardiness alters two appraisal components: it reduces the appraisal of threat and increases one’s expectations that coping efforts will be successful (Ferreira, 2012). Hardiness has also been shown to be associated with the individual’s use of active, problem-focused coping strategies for dealing with stressful events (Azeem, 2010; Delahaij et al., 2010; Ferreira, 2012; Latif, 2010). These two mechanisms, in turn, are hypothesised to reduce the amount of psychological distress one experiences and to contribute to the long-term psychological wellbeing of an individual. Hardiness is comprised of three sub-related concepts, namely, control, commitment and challenge (Latif, 2010). Control is measured by the absence of powerlessness that an individual feels (Ferreira, 2012; Latif, 2010) and refers to the belief that one can control or influence occurrences in one’s life, that personal efforts can modify stressors so as to reduce them into a more manageable state. (Azeem, 2010; Delahaij et al., 2010; Ferreira, 2012; Latif, 2010), and that consistency exists between one’s actions and external events (Sullivan, 1993). Commitment is reflected in the ability to feel actively involved in one’s

experiences; adverse situations are ultimately seen as meaningful and interesting; commitment is reflected in one's capacity to become involved, rather than feeling estranged; and challenge is a belief that change is not a threat to personal security, but an opportunity for personal development and growth (Azeem, 2010; Delahij et al., 2010; Ferreira, 2012; Latif, 2010) . Challenge represents the individual's positive attitude towards change and the belief that one can profit from failure as well as success (Brooks, 1991). While hardiness explains a generalised style of functioning, characterised by a strong sense of commitment, control and challenge that serves to alleviate the negative effects of stress (Azeem, 2010; Delahij et al., 2010; Hystad et al., 2010; Zhang, 2010).

4.6.3 Toward constructing a psychological coping profile: Integration of the wellness-related dispositional attributes and the resiliency-related behavioural capacities

The central hypothesis of this research is that the overall relationship between individuals' wellness-related dispositional attributes (their levels of sense of coherence, emotional intelligence and burnout) and their resiliency-related behavioural capacities (career adaptability and hardiness) will constitute a psychological coping profile that may be used to inform organisational wellness practices in the call centre environment. Individuals' biographical characteristics (age, gender, race and marital status) will moderate the relationship between their wellness-related dispositional attributes (their levels of sense of coherence, emotional intelligence and burnout) and their resiliency-related behavioural capacities (career adaptability and hardiness). Furthermore, individuals from different age, gender and race groups will have different levels of sense of coherence, emotional intelligence, burnout, career adaptability and hardiness.

According to Diener et al. (2010), an individual's wellbeing is related to feeling either positive or negative feelings. Feelings are considered valuable in relation to wellbeing. Positive feeling include joy, happiness and contentment, while negative feelings include sadness and fear. There is a significant relationship between internal strength factors (emotional competencies and hardy personality) and psychological health (Latif, 2010). The aspects of internal competencies that were found to have a significant influence on psychological health are: 1) the ability to manage emotion and cope with stress; 2) the drive to accomplish personal goals in order to actualise one's inner potential and lead to a more meaningful life; and 3) the ability to verify feelings and thinking (Latif, 2010).

Over the years, many studies have demonstrated that people who have the resources required to resolve difficulties tend to suffer fewer physiological and psychological consequences following exposure to stressors (Latif, 2010) and several studies have attempted to extend these findings to organisational settings, relating coping and chronic stressors. Coping can be understood as the cognitive and behavioural attempts aimed at changing, remodelling or reducing the negative emotions themselves, or the factors in the environment that are responsible for these emotions (Akanji, 2012; Bhagat et al., 2012; Devi, 2012). More specifically, coping can be viewed as constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding a person's resources (Akanji, 2012; Bhagat et al., 2012; Devi, 2012).

Career adaptability is a psychosocial construct that denotes an individual's readiness and resources for coping with current and imminent vocational development tasks, occupational transitions and personal trauma (Savickas & Porfeli, 2012). Career adaptability resources are the self-regulation strengths or capacities that a person may draw upon to solve the unfamiliar, complex and ill-defined problems presented by developmental vocational tasks, occupational transitions and work traumas. These resources are not at the core of the individual, they reside at the intersection of person-in-environment. Thus, adapt-abilities are psychosocial constructs (Savickas & Porfeli, 2012).

Understanding an adaptive person is by no means simplistic and suggests a complex and dynamic model whereby the person is shown to engage internally as well as externally with the environment (Ferreira, 2012; Savickas & Porfeli, 2012). An adaptive career agent increases their person control over their vocational future and displays curiosity by exploring possible selves and future scenarios (Ferreira, 2012). Career adaptability refers to a readiness or predisposition to adjust to environmental changes and depends on adaptive competencies and adaptive motivation (Ferreira, 2012). Emotional intelligence plays an important role in that it integrates adjustment-related competencies in a coherent framework and approximates the underlying meta-competencies of adaptability and self-awareness (Savickas & Porfeli, 2012).

Numerous researchers have recognised at least two major types of coping, both of which are used by people to deal with stressful situations. The first is the regulation of emotions or distress (emotion-focused coping) and the second the management of the problem at the origin of the emotions/distress (i.e. problem-focused coping) (Akanji, 2012; Bhagat et al.,

2012; Devi, 2012). The former refers to a wide variety of cognitive processes such as avoidance, minimisation and distancing, as well as to behavioural strategies such as meditating, exercising and emotional support (Akanji, 2012; Bhagat et al., 2012; Devi, 2012; Latif, 2010); the latter involves analytical processes that place focus on the environment, for example problem-solving strategies and strategies that are directed inwards (Akanji, 2012; Bhagat et al., 2012; Devi, 2012; Latif, 2010). People with good coping skills and hardiness arguably possess resiliency against stress and adverse effects (Dumbvara, 2011; Latif, 2010).

Research studies on resilience highlight the notion that the association between life stress and coping resources in terms of feelings of ill being and wellbeing are the function of individuals' internal strength (Akanji, 2012; Bhagat et al., 2012; Devi, 2012). Personal resources affect the stress-strain relationship and, thus, wellbeing. Sense of coherence, a personal resource which refers to global orientation towards one's inner and outer environment, has been shown to make a direct and positive contribution to wellbeing and health (Bezuidenhout & Cilliers, 2011; Cilliers, 2011). According to Feldt (1997), as an individual's SOC strengthens over time it can decrease the levels of burnout.

Emotional intelligence plays an important role in employees' satisfaction and also helps to improve employee performance. Employees with high emotional intelligence are more likely to have higher levels of job satisfaction because they are more adept at appraising and regulating their own emotions than are employees with low emotional intelligence (Raja, 2010). Call centre agents have to deal with customers who may belong to different cultures and have different attitudes and levels of understanding, so call centre agents should have a high emotional intelligence, that is, firm control over their own emotions and the emotions of the people they interact with (Van Zyl & De Bruin, 2012). Call centre management should focus on the emotional level and work attitude of call centre agents along with the structuring of the recruitment and selection processes, because work attitude is another important variable that they should focus on for customer satisfaction (Gryn, 2010).

The literature on psychological hardiness suggests that the positive orientation associated with hardiness helps a person to stay healthy and free from anxiety under stressful circumstances (Latif, 2010). The hardy personality style encourages coping, which includes an amalgam of cognition, emotion and action aimed at not only survival, but also at the enrichment of life through development. In the years following the introduction of the concept

of hardiness, the relationship between hardiness and health has been investigated in a number of different studies (Azeem, 2010; Delahaij et al., 2010; Ferreira, 2012; Latif, 2010).

Hardiness is a general health-promoting factor which enables the individual to remain both psychologically and physically healthy despite being confronted by stressful situations or experiences (Ferreira, 2012; Latif, 2010; Azeem, 2010). Employees who tend to possess high hardy attitudes show the action pattern of coping with stressful circumstances by facing them (rather than being in denial) and struggling to turn them from potential disasters into opportunities (rather than avoiding them or blaming others) (Ferreira, 2012).

The hardy personality, an inherent internal attribute, provides the courage and motivation to engage in the different but essential tasks of socially supportive interactions, transformational coping and facilitating self-care. Through hardy coping action, the stressfulness of events can be minimised by turning changes into advantage and resolving conflicts. The end result of such a hardy orientation includes, over time, the full expression of one's capabilities, learning from both positive and negative experiences and growing in vitality, fulfilment and wisdom (Ferreria, 2012; Latif, 2010; Zhang, 2010). According to Ferreira (2012), the effects of hardiness on mental health are mediated by the individual's cognitive appraisal of a stressful situation and his/her repertoire of coping strategies (Latif, 2010). Hardiness and coping approaches could be used independently or jointly to reduce levels of burnout (Azeem, 2010; Delahaij et al., 2010; Ferreira, 2012; Latif, 2010).

4.6.4 Implications of the theoretical psychological coping profile for wellness practices

Wellness programmes are intervention strategies intended to promote the wellbeing of employees. The purpose of introducing wellness practices in an organisation is to create an awareness of wellness issues, to facilitate personal change and health management and to promote a healthy and supportive workplace (Sieberhagen et al., 2011). Not attending to the causes of employee wellbeing can incur costs for organisations. Lower levels of wellbeing may increase absence and turnover rates (Sieberhagen et al., 2011), which in turn can increase staffing, recruitment and training costs. When local labour markets are very competitive, these costs may be exacerbated. Lower wellbeing may also decrease the quality of customer service and increase errors (Sieberhagen et al., 2011). In call centres high levels of performance monitoring to ensure that scripts and call times are strictly

adhered to incur greater supervisory costs. As such, low employee wellbeing may increase total costs (Sieberhagen et al., 2011). In particular, call centres derive benefit in various ways, namely, reduced absenteeism, improved industrial relations, meeting labour legislation requirements, increase in performance and productivity, reduced health care costs and a reduction in accidents. This research therefore aims to construct a psychological coping profile for call centre agents so that psychological wellbeing can be derived to provide a better understanding of employee wellbeing within the specific population of call centre agents. This may inform organisation wellness practices (Sieberhagen et al., 2011).

4.6.5 Hypothesised theoretical psychological coping profile for call centre agents

Based on the hypothetical theoretical relationships stated above between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness), the following psychological-behavioural profile emerges on a theoretical level: Below figure 4.4 depicts the elements (cognitive, affective, conative and interpersonal) that constitute the hypothesised theoretical psychological coping profile.

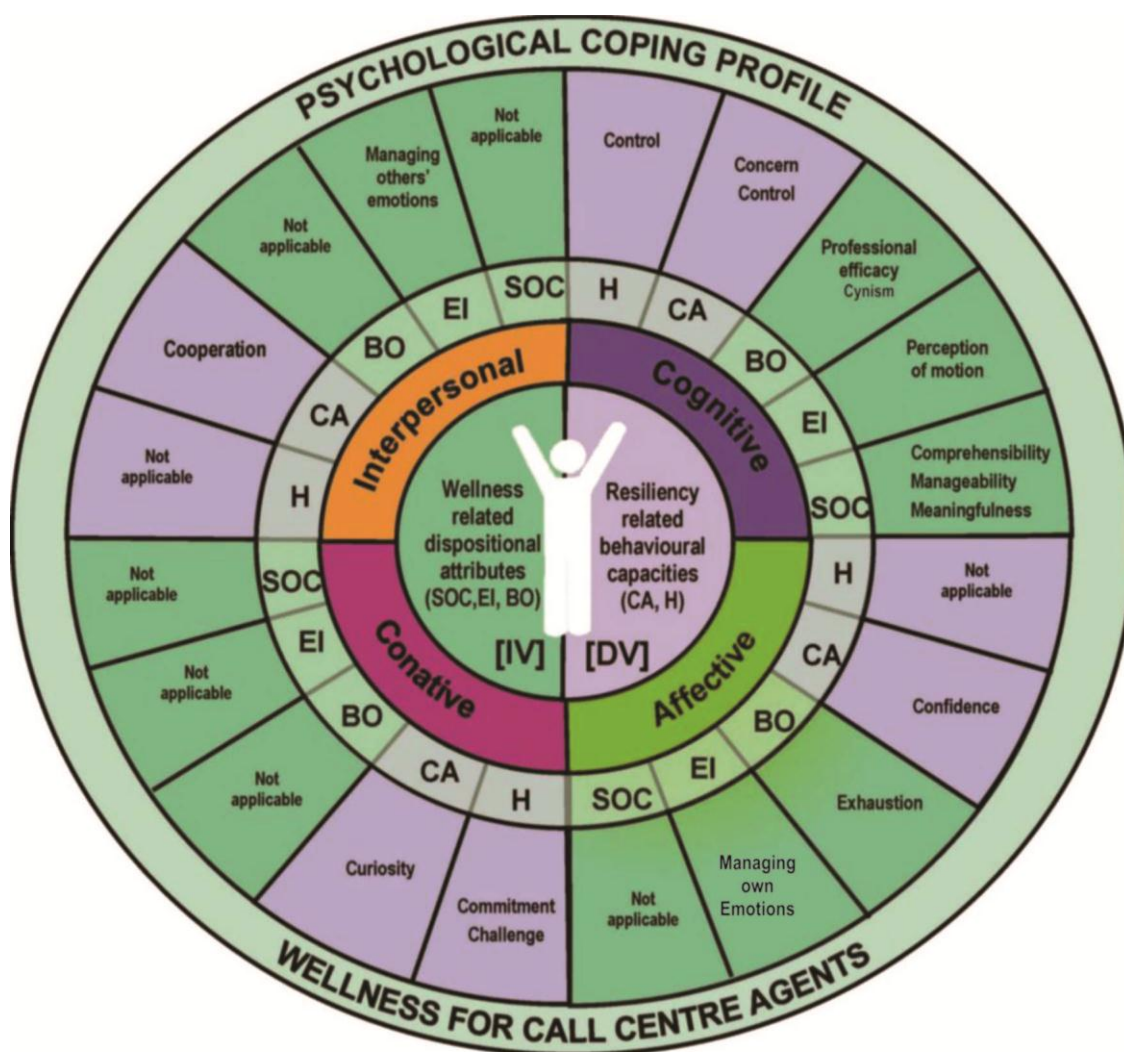


Figure 4.4: Hypothesised theoretical psychological coping profile for call centre agents

IV – independent variable; DV – dependent variable; SOC – sense of coherence; EI – emotional intelligence; BO – burnout; CA – career adaptability; H – hardiness

As shown in the theoretical psychological profile above (figure 4.4), the four psychological dimensions are cognitive, affective, conative and interpersonal. The sense of coherence consists of three behavioural dimensions, namely, comprehensibility, manageability and meaningfulness. Emotional intelligence consists of four behavioural dimensions namely, perceptions of emotions, managing own emotions, managing other's emotions and utilising emotions. Burnout consists of three behavioural dimensions namely professional efficacy, depersonalisation and exhaustion.

Career adaptability consists of five behavioural dimensions namely concern, control, curiosity, confidence and co-operation. Hardiness consist of three behavioural dimensions namely commitment, control and challenge.

A discussion on the dispositional attributes and behavioural capacities that relate to the **cognitive, affective, conative and interpersonal** psychological dimensions follows.

4.6.5.1 Cognitive level

On a *cognitive level*, individuals' **sense of coherence**, in terms of manageability, relates to individuals having the resources available to meet the demands of the environment and, hence, being able to cope. This refers specifically to the amount of energy, skill and ability that a person has in order to manage the demands of everyday life (Bezuidenhout, 2011; Cilliers & Bezuidenhout, 2011; Wissing, Thekiso, Stapelber, Quickelberger, Choabi, Moroeng, 2010). In terms of their comprehensibility, an individual perceives stimuli as information that is ordered (Wissing et al., 2010). A person with high comprehensibility expects future stimuli to be predictable or at least orderable and explicable. Stimuli are thus experienced as comprehensible and as events that make sense on a cognitive level (Bezuidenhout & Cilliers, 2010; Wissing et al., 2010; Marx, 2011). In terms of their meaningfulness, demands and challenges are viewed as being worthy of investment and the individual is expected to identify emotionally and to commit effort to handling these demands (Bezuidenhout & Cilliers, 2010; Marx, 2011).

Antonovsky (1979) maintains that the strength of sense of coherence relates to a variety of coping mechanisms. Accordingly, a GRR refers to the characteristics of a person, group or society that facilitate avoiding or contributing to a wide range of stressors and include interpersonal rational resources such as social support systems (Bezuidenhout & Cilliers, 2010). An individual feels that life makes sense on an emotional level and this involves participation in decision-making responsibility for any decisions to be made (Wissing et al., 2010). When individuals receive conflicting information, such as inconsistent rules or continuous chaos, they are unable to make sense of situations. In contrast however, stability in a community can have a positive effect on a sense of coherence (Bezuidenhout & Cilliers, 2010). By implication, some challenges are seen as welcome rather than new burdens one would much rather do without (Bezuidenhout & Cilliers, 2010; Cilliers, 2011). The individual

has the ability to adapt to change and be aware of, to understand and to relate to others and to solve problems of a personal or social nature (Wissing et al., 2010).

On a cognitive level, with regards to **emotional intelligence**, individuals recognise and manage and understand one's own emotions (Roy & Chaturvedi, 2011; Gryn, 2010; Van Zyl & De Bruin, 2012). Research has shown that emotional intelligence can be developed and improved at any stage of life through a systematic and consistent approach (Bailey et al., 2011; Van Zyl & De Bruin, 2012; Yu-Chi, 2011). Emotional intelligence should be seen as an ability or construct that can be divided into four branches: emotional perception and expression; emotional facilitation of thought; emotional understanding; and emotional management (Bailey et al., 2011; Roy & Chaturvedi, 2011; Shaemi et al., 2011; Dumbvara, 2011; Yu-Chi, 2011).

On a cognitive level, **burned out** individuals perceive a reduced level of accomplishment (Lent & Schwartz, 2012). Symptoms manifest as a tendency to be inflexible and rigid in thinking, as well as stereotyping and depersonalising clients. Burnout is also associated with a closed mind about change, as well as poor decision making and making mistakes (Bezuidenhout & Cilliers, 2010; Choi et al., 2012; Lent & Schwartz, 2012; Yürür & Sarikaya, 2012).

On a cognitive level, in terms of their **career adaptability**, individuals are concerned, involved and prepared to exert more control over their career. (Ferreira, 2012; Savickas & Porfeli, 2012). Career control means that individuals feel and believe that they are responsible for constructing their career (Savickas & Porfeli, 2012). On an affective level attitudes of assertiveness and decisiveness dispose self-governing individuals to engage with the vocational development tasks and negotiate occupational transitions, rather than procrastinate and avoid them (Ferreira, 2012; Savickas & Porfeli, 2012). Moreover, assertive attitudes and beliefs in personal responsibility incline individuals to engage in activities and experiences that promote decisiveness and competence in decision making (Ferreira, 2012; Savickas & Porfeli, 2012). Career indecision can be addressed by assertiveness training, decisional training and attribution retraining that build decisional skills and foster responsibility (Ferreira, 2012; Savickas & Porfeli, 2012).

On a cognitive level in terms of **hardiness**, individuals with high levels of hardiness will tend to exert control over and influence life's events by changing their perceptions of given

situations. They tend to put stressful circumstances into perspective and interpret them in a less threatening manner (Ferreira, 2012). As a consequence of these optimistic appraisals, the impact of the stressful events is reduced and they are less likely to negatively affect the health of the individual (Ferreira, 2012).

At the cognitive level, interventions should assist individuals to enhance their sense of coherence, emotional intelligence, career adaptability and hardiness by identifying or building resources and perceiving stimuli as ordered and explicable, to view challenges as worthy of investment (Bezuidenhout & Cilliers, 2010; Harry & Coetzee, 2011; Harry, 2011; Marx, 2011).

4.6.5.2 Affective behavioural level

On an affective level in terms of **sense of coherence**, individual's repeated exposure to stressors increases coping. On an affective level in terms of **emotional intelligence**, individuals with high levels of emotional intelligence are aware of their emotions and identify between the different emotions. On an affective level in terms of **burnout**, individuals with high levels of burnout are likely to feel a depletion of emotional resources. It refers to feelings of being overextended and drained of one's emotional and physical resources (Bezuidenhout & Cilliers, 2010; Choi et al., 2012; Lent & Schwartz, 2012; Yürür & Sarikaya, 2012). Mentally distancing oneself from one's job primarily occurs during work and with respect to the specific work requirements (Yürür & Sarikaya, 2012). Psychological withdrawal from the task can be conceived as an adaptive mechanism for coping with excessive job demands and the resultant feelings of exhaustion (Bezuidenhout & Cilliers, 2010; Choi et al., 2012; Lent & Schwartz, 2012; Yürür & Sarikaya, 2012). Depersonalisation can be seen as the distancing of oneself from people with whom one is in direct contact in the working environment (i.e. members of and community) and addresses an important issue in occupational health psychology – the role of creating mental distance between oneself and the (emotional) requirements of one's job (i.e. working with people) (Bezuidenhout & Cilliers, 2010; Choi et al., 2012; Lent & Schwartz, 2012; Yürür & Sarikaya, 2012).

On an affective level in terms of **career adaptability**, individuals with high levels of career adaptability display curiosity about their keenness to explore possible selves and their future. On an affective level in terms of **hardiness**, individuals with high levels of hardiness feel actively involved in their experiences rather than feeling estranged.

On the affective level, interventions should assist individuals in managing their exhaustion levels and adopting direct coping styles (Jordan et al., 2010). Accordingly, individuals will develop enough confidence in their careers to pursue their aspirations (Savickas & Porfeli, 2012)

4.6.5.3 *Conative (motivational) behavioural level*

On a conative level in terms of **sense of coherence**, individuals will select resources and manage the situations. In term of **emotional intelligence**, on a conative level individuals are more likely to initiate relevant behaviours. On a conative level in terms of **burnout**, individuals with high resources show increased motivation. In terms of **Career adaptability** on a conative level, individuals demonstrate a high level of confidence and curiosity in pursuing one's career aspirations. Accordingly, attitudes of inquisitiveness dispose individuals to scan the environment to learn about the self and situations (Ferreira, 2012; Savickas & Porfeli, 2012), as well as dispose them to information-seeking behaviour as their direct product of self knowledge. When acted on, curiosity produces a fund of knowledge with which to make choices that fit the self to the situation and the occupational information (Ferreira, 2012; Savickas & Porfeli, 2012).

On a conative level in terms of **hardiness**, individuals actively commit to active engagement in daily living and having a purpose in life. Individuals involve themselves in the activities of life and have a genuine interest in and curiosity about the surrounding world (activities, things and other people) (Latiff, 2010). Hardy persons recognise that they have opportunities to become actively involved in various life activities (commitment) (Ferreira, 2012; Latif, 2010; Zhang, 2010). Hardy people exhibit a sense of commitment to various domains of their life, that is, social, work, interpersonal, family and self (Azeem, 2010; Ferreira, 2012; Zhang, 2010). As the belief that change, rather than stability, is the normal mode of life and constitutes opportunities for personal growth rather than threats to security, hardy personalities feel challenged by stressful situations and display higher tolerance levels for ambiguity. Hardy individuals will perceive positive events as important and negative events as unimportant, as hardiness will buffer the effects of negative events (Azeem, 2010; Ferreira, 2012; Zhang, 2010).

On the conative level wellness interventions can assist individuals to become curious. This will lead to self-exploration which, in turn, can focus on exploring personal interests and values (Savickas & Porfeli, 2012). Individuals can also develop a sense of commitment, that is, a belief that one can control and influence outcomes (Latif, 2010).

4.6.5.4 *Interpersonal behavioural level*

In terms of **sense of coherence** on an interpersonal level, individual coping is achieved by being socially connected to the stressors. In term of **emotional intelligence** on an interpersonal level, individuals' perceptions of their own abilities carry an importance for their relationships. This is viewed as the competency to observe one's own and other people's emotional states, motives and behaviour, and to act favourably in relating to others on the grounds of this observation (Bailey et al., 2011; Dumbvara, 2011; Roy & Chaturvedi, 2011; Shaemi et al., 2011; Yu-Chi, 2011). Individuals should be aware and able to understand and express themselves (Bailey et al., 2011; Dumbvara, 2011; Roy & Chaturvedi, 2011; Shaemi et al., 2011; Yu-Chi, 2011). Emotional intelligence is comprised of four clusters: self-awareness, self-management, social awareness and social skills. Individuals perceive, appraise, express emotions, identify their own emotions and those of others; thus expressing their emotions and discriminating the expression of emotions in others, using emotions to facilitate and prioritise thinking, to label emotions and distinguish between them (Bailey et al., 2011; Dumbvara, 2011; Roy & Chaturvedi, 2011; Shaemi et al., 2011; Yu-Chi, 2011). In terms of **burnout** on an interpersonal level, individuals have a sense of personal efficacy and working well with others.

In terms of **career adaptability** on an interpersonal level, individuals co-operate with others and capitalise on social opportunities for career success. In terms of **hardiness** on an interpersonal level, in individuals there is a consistency between one's own action and emotions and external events.

On an interpersonal level wellness interventions can assist individuals, in terms of social intelligence, in managing their own emotions as well as those of others (Shaemi et al., 2011)

The various behavioural elements (cognitive, affective, conative and interpersonal) that constitute the hypothesised theoretical psychological profile are summarised in Table 4.6.

Table 4.6: *Psychological Profile Reflecting Wellness-Related Dispositional Attributes (Sense of coherence, Emotional intelligence, Burnout) and Resiliency-Related Behavioural Capacities (Career Adaptability and Hardiness)*

Psychological dimension	Sense of coherence	Emotional intelligence	Burnout	Career adaptability	Hardiness	Wellness interventions
Cognitive (mental reasoning)	Manageability Comprehensibility Meaningfulness	Perception of emotions	Professional efficacy cynicism	Concern Control	Control	<p>Interventions will assist to enhance sense of coherence, emotional intelligence, career adaptability and hardiness by having resources, perceiving stimuli as ordered, and explicable, and view challenges as worthy of investment.</p> <p>Individuals will recognise and understand one's own emotions and become concerned, involved and prepared to exert control over their career and influence life's events by changing perceptions of given situations</p>

Psychological dimension	Sense of coherence	Emotional intelligence	Burnout	Career adaptability	Hardiness	Wellness interventions
Affective (feeling)			Exhaustion Depersonalisation	Confidence		<p>Interventions will assist individuals to manage exhaustion levels and adopt direct coping styles accordingly individuals will develop confidence in their career to pursue aspirations.</p> <p>Individuals repeated exposure to stressors increase coping and they become aware of their emotions and have the ability identify between these different emotions.</p>
Conative (Motivational)				Curiosity	Commitment Challenge	<p>Interventions will assist individuals to select resources, those individuals with high resources show increased motivation which will able individuals to manage situations and initiate relevant behaviours to become curious and lead to self- exploration, focus on personal interests and values and develop a</p>

Psychological dimension	Sense of coherence	Emotional intelligence	Burnout	Career adaptability	Hardiness	Wellness interventions
						sense of commitment, confidence and belief that one can control and influence outcomes. Individuals will actively commit and have a purpose in life
Interpersonal (social)		Managing others' emotions		Co-operation		Interventions will assist individuals to become socially connected to the stressors, and having perceptions of their own abilities which carry an importance for their relationships. Individual will have a sense of personal efficacy which would result in working well with others. Individuals will co-operate with others and capitalise on social opportunities for career success, and there would be consistency between one's own actions and emotions and external events.

4.6.6 The influence of age, gender, race and marital status on sense of coherence, emotional intelligence, burnout, career adaptability and hardiness

In Table 4.7 below, in terms of sense of coherence men, older and married people have a higher sense of coherence level (Sairenchi et al., 2011). Research by Moksnes et al. (2011), into race revealed Japanese American women display lower sense of coherence than white American women. In terms of emotional intelligence, older, married and females have stronger emotional intelligence levels (Ziljman et al., 2011). Research by Rangriz & Merabi, (2010) into race revealed Iranian, Chinese and Caribbean people have stronger emotional intelligence. In terms of burnout, younger, single and men tend to have higher burnout levels (Ziljman et al., 2011). In research into race, African American's report lower levels of burnout than white American individuals (Lent & Schwartz, 2012). In terms of career adaptability, women and married individuals had higher levels of career adaptability. Research by Ferreira, (2012) revealed black South African women displaying higher career adaptability. In terms of hardiness, men married and younger individuals display higher levels of hardiness. Research into race revealed black women having higher levels of hardiness (Fereira, 2012; Latif, 2010).

Table 4.7: Overview of Age, Gender, Race and Marital Status on Sense of Coherence, Emotional Intelligence, Burnout, Career Adaptability and Hardiness

Person-centred (socio-demographic) variables	Wellness-related dispositional attributes			Resiliency-related behavioural capacities	
	Sense of coherence	Emotional Intelligence	Burnout	Career Adaptability	Hardiness
Age	The older the individuals the stronger the sense of coherence. Younger individuals have a lower level of sense of coherence	Older people more stable than younger individuals. Emotional intelligence increases with age.	Younger individuals have higher levels of burnout than older individuals.	Age did not have an impact on career adaptability	Younger individuals have higher levels of hardiness.
Gender	Males tend to have higher sense of coherence level than females	Females have a stronger emotional intelligence than men	Males have a higher level of burnout than females.	Women tend to have higher scores on career adaptability.	Hardiness is higher for men than women.
Race	Japanese American women display lower levels of sense of coherence than white American women	Research into Iranian, Chinese and Caribbean individuals revealed a strong emotional intelligence.	African Americans reported lower levels of burnout than white American individuals.	Black women in South Africa displayed higher levels of career adaptability.	Black women revealed higher levels of hardiness.

Person-centred (socio-demographic) variables	Wellness-related dispositional attributes			Resiliency-related behavioural capacities	
	Sense of coherence	Emotional Intelligence	Burnout	Career Adaptability	Hardiness
Marital status	Married people have a higher sense of coherence than single people.	Married people have higher emotional intelligence than single people.	Single individuals have a higher levels of burnout than families.	Widowed individuals had a lower level of career adaptability than married individuals	Widowed individuals have lower levels of hardiness than married individuals.

4.7 EVALUATION AND FORMULATION OF RESEARCH HYPOTHESES

In this study, wellness-related dispositional attributes constructs namely sense of coherence, emotional intelligence and burnout have been conceptualised as resources for psychological wellbeing. Sense of coherence has been conceptualised in terms of the salutogenic theory (Antonovsky, 1987). The salutogenic theory is based on processes that shift people towards or keep people at the health-ease pole. Sense of coherence relates to the way in which individuals makes sense of the world. To use the required resources to respond to stressors, these resources may be internal or they may lie in the social environment, thereby increasing individuals' resilience (Harrop, Addis, Elliot & Williams, 2006; Harry, 2011; Viljoen, 2012). Emotional intelligence has been conceptualised by the ability–trait (mixed) model of emotional intelligence, which views emotional intelligence as a psycho-social meta-capacity for coping positively with chaotic employment conditions. The construct represents individuals' resources (attributes, beliefs and competencies) to respond to potentially stressful work-related situations and challenges that lead to increased emotional resilience and wellbeing in a call centre (Bar-On, 2001; Coetzee & Harry, 2013; Goleman, Mayer & Salovey, 1990). However, very little research exists on emotional intelligence and call centre work. Burnout has been conceptualised by the job-demands-resource model and the conservation of resources model. These two models suggest that individuals who have high internal and external resources tend to have increased motivation and resilience and higher productivity (Demerouti et al., 2001; Harry, 2011; Hobfall & Shirom, 1993; Schaufeli & Taris, 2014).

The resiliency–related behavioural capacities construct, namely career adaptability and hardiness, has been conceptualised as adaptive resources in this study. According to Savickas and Porfeli (2012), career adaptability relates to a set of self-regulatory cognitive-affective behavioural capacities or psychosocial resources that individuals may draw upon to cope. Career adaptability therefore may potentially increase individuals' career resiliency within a call centre work environment. However, very little research exists on call centre agents' career adaptability as well as how call centre agents manage a career within a call centre work environment. Hardiness in this study is conceptualised according to Kobasa (1979) and is viewed as a resistance resource which consists of personality resources individuals use to cope in a call centre work environment. However, there exists a paucity of research into hardiness as resiliency-related behavioural capacity within a call centre work environment. The

theoretically hypothesised coping profile provides insights of how individuals cope within a call centre work environment on a cognitive, affective, conative and interpersonal behavioural level.

Based on the literature review, the following research hypotheses have been proposed, as shown in Table 4.8:

Table 4.8: *Research Hypotheses*

Research aim	Research hypothesis	Statistical procedure
Research aim 1: To investigate the nature of the statistical <i>interrelationships</i> between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness) as manifested in a sample of respondents employed in a call centre environment.	<p>H₀₁: There is no statistically significant positive interrelationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness)</p> <p>H_{a1}: There is a statistically significant positive interrelationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness)</p>	Correlation analysis

Research aim	Research hypothesis	Statistical procedure
<p>Research aim 2:</p> <p>To assess the nature of the <i>overall</i> statistical relationship between the wellness-related dispositional attributes construct as a composite set of independent latent variables (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities construct as a composite set of dependent latent variables (career adaptability and hardiness).</p>	<p>H₀₂: The wellness-related dispositional attributes construct variate (sense of coherence, emotional intelligence and burnout) does not significantly and positively relate to the resiliency-related behavioural capacities construct variate (career adaptability and hardiness).</p> <p>H_{a2}: The wellness-related dispositional attributes construct variate (sense of coherence, emotional intelligence and burnout) significantly and positively relates to the resiliency-related behavioural capacities construct variate (career adaptability and hardiness).</p>	<p>Canonical correlation analysis</p>
<p>Research aim 3:</p> <p>To assess whether the variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).</p>	<p>H₀₃: The variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) do not positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).</p>	<p>Multiple regression analyses</p>

Research aim	Research hypothesis	Statistical procedure
	H _{a3} : The variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).	
Research aim 4: Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), to assess the fit between the elements of the empirically manifested structural model and the theoretically hypothesised model.	H ₀₄ : Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), the elements of the empirically manifested structural model and the theoretically hypothesised model do not show a good fit. H _{a4} : Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), the elements of the empirically manifested structural model and the theoretically hypothesised model show a good fit.	Structural Equation Modelling

Research aim	Research hypothesis	Statistical procedure
Research aim 5: To assess whether the biographical variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct.	<p>H₀₅: The biographical variables (age, gender, race, and marital status) do not significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct.</p> <p>H_{a5}: The biographical variables (age, gender, race, and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct.</p>	Moderated regression analyses
Research aim 6: To assess whether significant differences exist between the sub-groups of biographical variables that acted as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct, as manifested in the sample of respondents.	<p>H₀₆: Individuals from various biographical groups (age, gender, race, and marital status) do not differ significantly regarding the variables manifested in the best fit model.</p> <p>H_{a6}: Individuals from various biographical groups (age, gender, race, and marital status) differ significantly regarding the variables manifested in the best fit model</p>	Tests for significant mean differences

Note: H₀ (null hypothesis); H_a (alternative hypothesis)

4.8 CHAPTER SUMMARY

Chapter 4 addressed part of the second literature research aim, namely, to conceptualise the constructs of resiliency-related behavioural capacities (career adaptability and hardiness). Firstly, the conceptual foundations and development of career adaptability and hardiness were discussed, followed by an exploration of models relevant to both constructs. Variables influencing career adaptability and hardiness were also discussed. Finally, the implications of a psychological coping profile for organisations' wellness practices were highlighted. Based on the literature review, a theoretical psychological profile comprising the cognitive, affective, conative and interpersonal behavioural elements that might influence the psychological coping of call centre agents were proposed. The empirical study aims to establish the interrelationships and overall relationship between the various behavioural elements so as to identify those elements that may contribute most to the psychological coping of call centre agents.

Herewith the following research aims of the literature review have been achieved:

Research aim 3: To conceptualise the nature of the theoretical relationship between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness) and explain this relationship in terms of an integrated theoretical model.

Research aim 4: To propose a hypothetical theoretical psychological coping profile for call centre agents based on the theoretical relationship dynamics between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness).

Research aim 5: To critically evaluate the implications of a psychological coping profile for organisations' wellness practices in the call centre.

Herewith the research aims for the literature review have been achieved.

Chapter 5 discusses the empirical study and the statistical procedures for testing the research hypotheses and addresses research steps 1 to 6 relevant to the study.

CHAPTER 5: EMPIRICAL STUDY

Chapter 5 outlines the empirical investigation with the aim of describing the statistical strategies that will achieve the empirical aims of the study. Firstly, an overview of the study's population and sample is presented. The measuring instruments will be discussed and the choice of each will be justified, followed by a description of the data gathering and statistical processing methods. The formulation of the research hypotheses will be stated, and the chapter will conclude with a chapter summary.

The empirical research phase consists of nine steps as outlined below:

- Step 1 Determination and description of the sample;
- Step 2 Choosing and motivating the psychometric battery;
- Step 3 Administration of the psychometric battery;
- Step 4 Scoring of the psychometric battery;
- Step 5 Formulation of the research hypotheses;
- Step 6 Statistical processing of the data;
- Step 7 Reporting and interpreting the results;
- Step 8 Integration of the research findings; and
- Step 9 Formulation of research conclusions, limitations, and recommendations.

Steps one to six are addressed in this chapter and steps seven to nine in chapters 6 and 7.

5.1 DETERMINATION AND DESCRIPTION OF THE SAMPLE

A population can be defined as a complete set of events, sets of objects or cluster of people that form part of the purpose of the research and about which the researcher would like to identify certain characteristics (Gravetter & Wallnau, 2011). A population refers to the section of the entire population that has been drawn and in which the researcher is interested (Gravetter & Wallnau, 2011; Hair, Black, Babin & Anderson, 2010; Hogg & Tanis, 2010). The main decisive factor when making a decision on a sample size is the degree to which the sample will be representative of the entire population (Tredoux & Durrheim, 2013). For the population to be

accurately defined, the units being sampled, the geographical location, and the temporal boundaries of the population need to be specified (Tredoux & Durrheim, 2013). Sampling is a process of systematically selecting cases for inclusion in a research project, in which the researcher uses sampling to extract a representation of the population from which the research conclusions will be drawn (Tredoux & Durrheim, 2013). A sample can be described as a set of cases containing any number of individuals less than the population (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

There are two main types of sampling which are referred to as probability and non-probability sampling (Tredoux & Durrheim, 2013). Probability sampling gives every element in the target population an equal chance of being selected for the sample whereas non-probability sampling does not allow for elements to be selected according to the principle of systematic randomness (Tredoux & Durrheim, 2013).

This research made use of the non-probability sampling method called purposive sampling, where data were purposively collected from a readily available and accessible population. Non-probability samples are used when there are possible boundaries in place preventing probability sampling from being used, where there are no available sampling frames, the cost of probability sampling is high and there are time constraints (Tredoux & Durrheim, 2013).

In the context of the present study, the total population consisted of employed adults in three of the largest outsourced call centres in Africa. Initially (N= 500) were targeted, however, only (N=409) completed the questionnaires. Questionnaires (N=100) were posted to the participants in Lagos, Nigeria and 45 fully completed questionnaires were returned by post. Additional data collection was done at two call centres in Johannesburg and Durban, yielding an additional 364 usable questionnaires at these two call centres. The overall response rate for (N=409) usable questionnaires was 82%.

Table 5.1 gives an overview of the initial and final sample size.

Table 5.1: *Initial and Final Sample*

Description	Number of usable questionnaires received
Population: N = 500	
Response rate usable questionnaires: 82%	
Total number of questionnaires received by post	n=45
Total number of questionnaires completed at the call centres	n=364
Total number of questionnaires used	n=409
TOTAL FINAL SAMPLE SIZE:	n =409

The profile of the sample is described according to the following socio-demographic variables: age; gender; race and marital status. The decision to include these categories of socio-demographic variables was based on the literature review's exploration of the variables that influence the constructs of wellness-related dispositional attributes and the resiliency-related behavioural capacities.

5.1.1 Composition of age groups in the sample

Table 5.2 and figure 5.1 illustrate the composition of age groups. The age of the respondents was measured in categories, ranging from 25 years and younger to over 26 years. Participants aged 25 years and younger comprised 47%, participants aged 26–40 comprised 50% and participants aged 41-55 comprised 3% of the total sample (N = 409).

Table 5.2: *Age Distribution of the Sample*

Age	N	Percentage of sample
25 years and younger	190	47%
26 – 40 years	208	50%
41 – 55 years	11	3%
<i>Total (N)</i>	<i>409</i>	<i>100%</i>

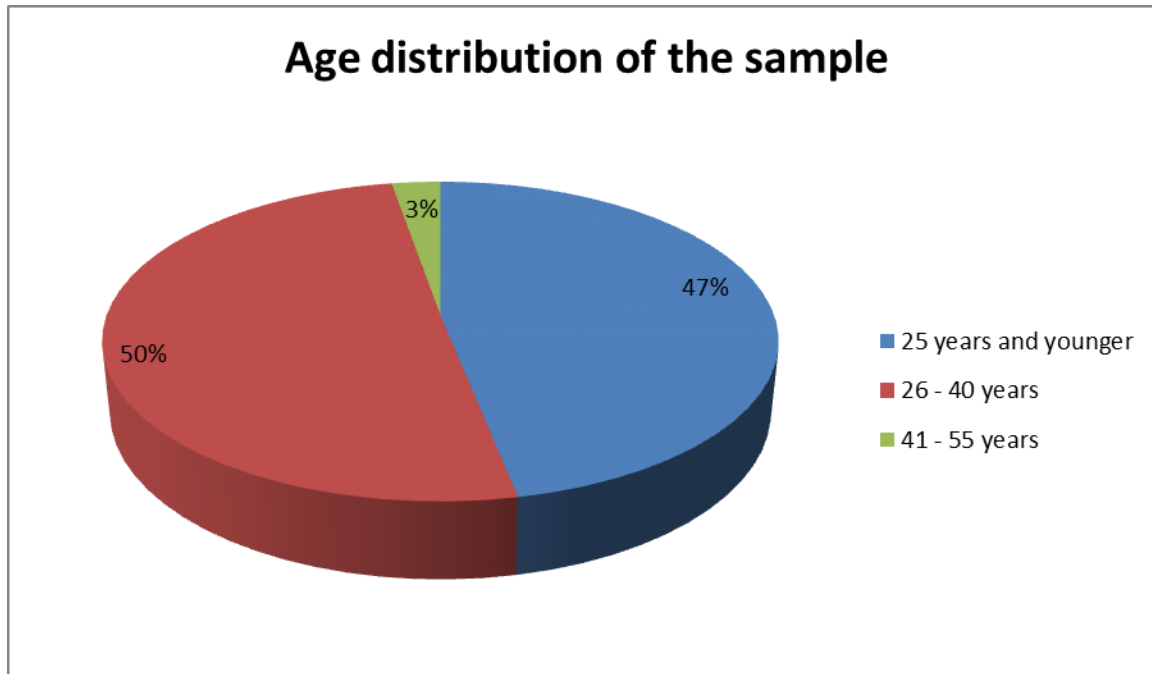


Figure 5.1. Sample distribution by age (N = 409)

5.1.2 Composition of gender groups in the sample

Table 5.3 and figure 5.2 illustrate the gender distribution of participants in the sample. Males comprised 34% and females comprised 66% of the participants (N = 409).

Table 5.3: *Gender Distribution of the Sample*

Gender	N	Percentage of sample
Male	141	34%
Female	268	66%
Total (N)	409	100%

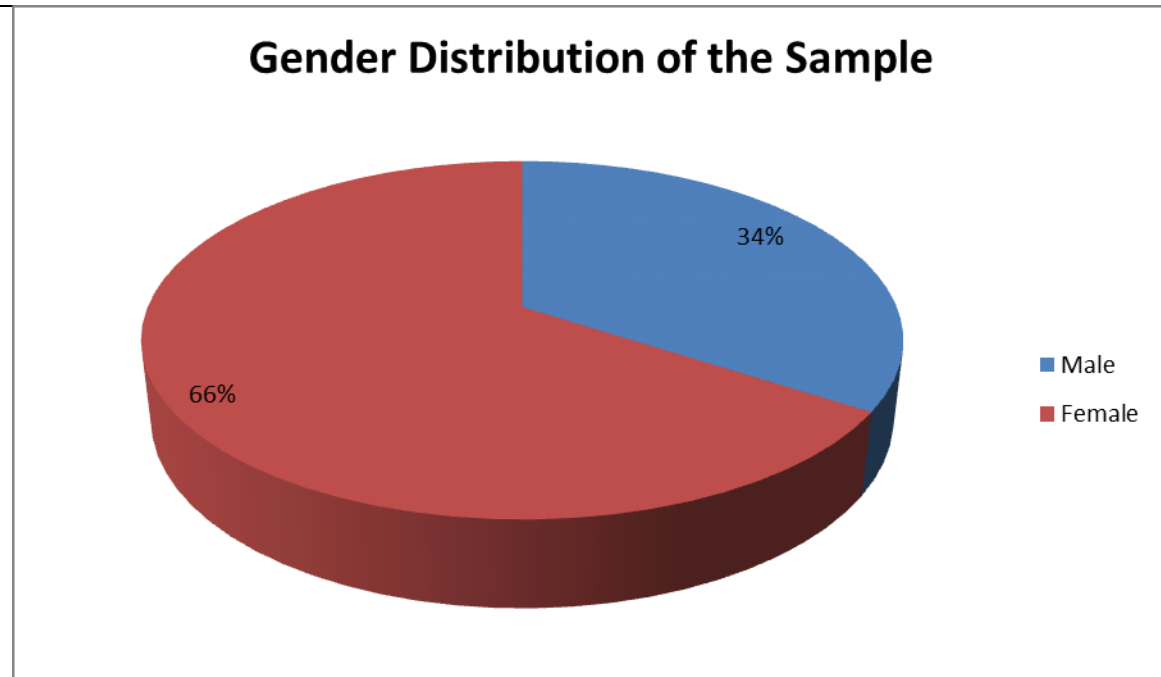


Figure 5.2: Sample distribution by gender (N = 409)

5.1.3 Composition of race groups in the sample

Table 5.4 and figure 5.3 illustrate the race distribution of the sample. The distribution of the sample shows that black African people comprised 92%, coloured people comprised 6% and people from Indian descent comprised 2% of the total sample of participants (N = 409).

Table 5.4: *Race Distribution of the Sample*

Race	N	Percentage of sample
Blacks	375	92%
Coloured	24	6%
Indian	10	2%
<i>Total (N)</i>	<i>409</i>	<i>100%</i>

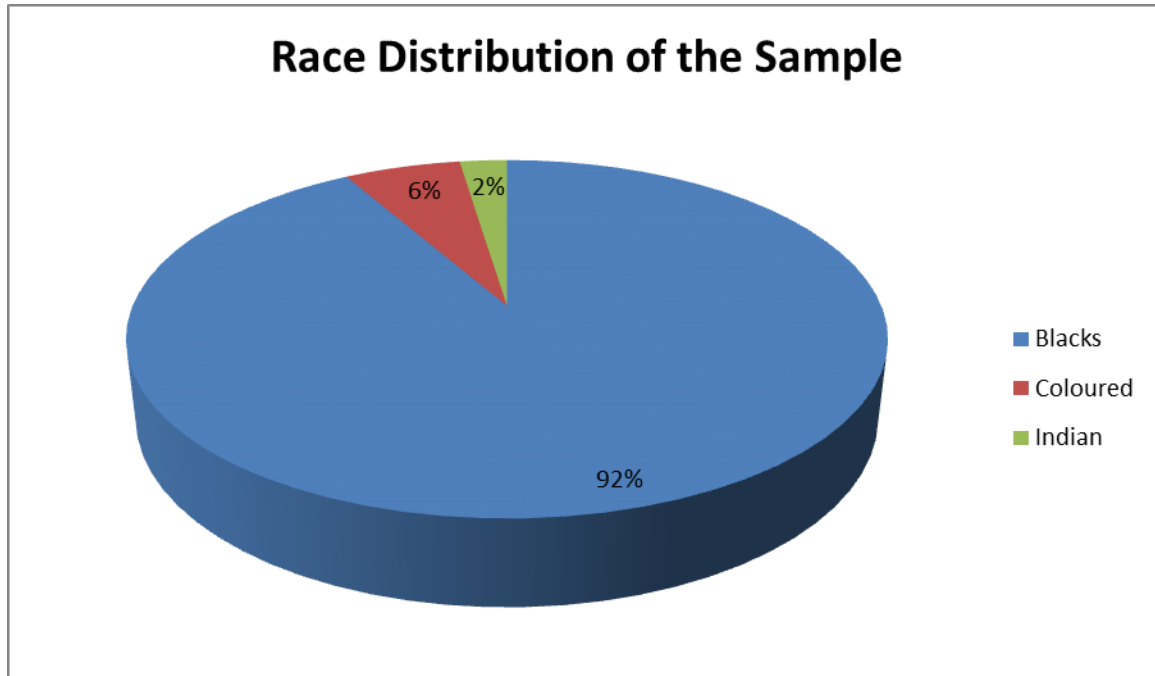


Figure 5.3: Sample distribution by race (N = 409)

5.1.4 Composition of marital status groups in the sample

Table 5.5 and figure 5.4 illustrate the marital status distribution of participants in the sample. Participants who were single comprised 83%, married comprised 15%, widowed comprised 1% and separated /divorced comprised 1%.

Table 5.5: *Marital Status Distribution of the Sample*

Marital status	N	Percentage of sample
Single	337	83%
Married	62	15%
Widowed	4	1%
Separated/divorced	6	1%
<i>Total (N)</i>	<i>409</i>	<i>100%</i>

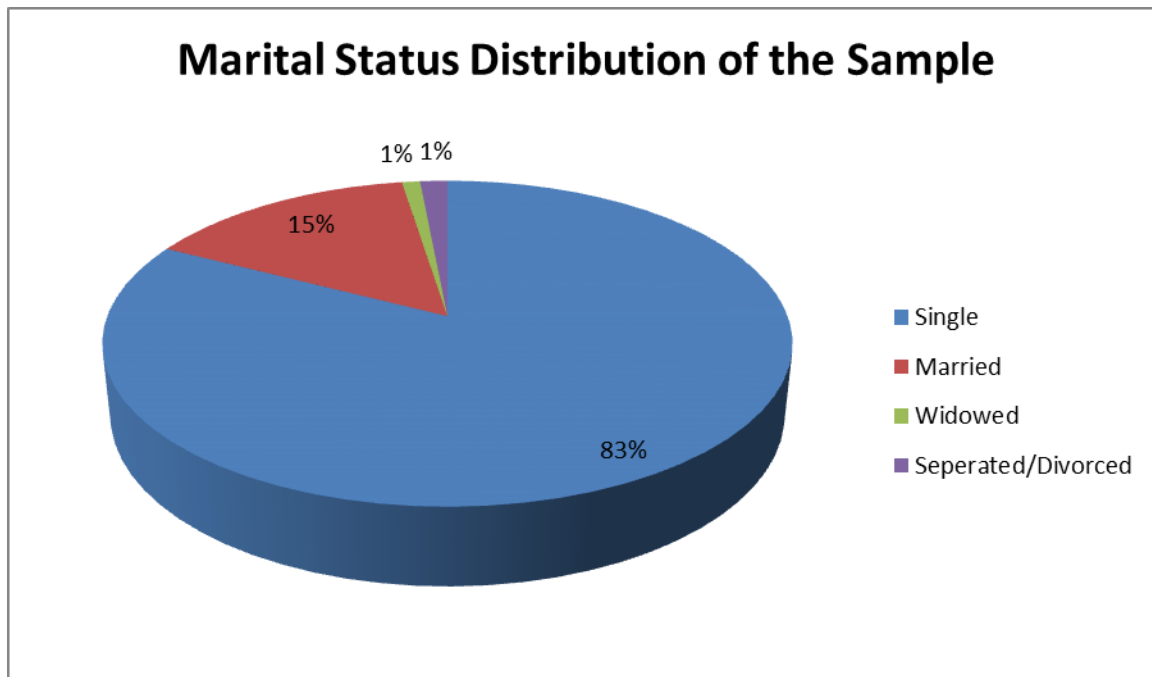


Figure 5.4: Sample distribution by marital status (N = 409)

5.1.5 Summary of sample socio-demographic profile

In summary, the socio-demographic profile obtained for the sample showed that the main sample characteristics that needed to be considered in the interpretation of the empirical results were as follows: age, gender, race and marital status. The participants in the sample were predominantly employed blacks, females, single and between the ages younger than 25 and 26 to 40 years (early career/establishment stage). According to research, this sample compares well with the typical profile of call centre agents as being predominantly black and young with the average age of 29-32 years (early career stage) (Latif, 2010).

5.2 CHOOSING AND MOTIVATING THE PSYCHOMETRIC BATTERY

The selection of the psychometric battery was guided by the literature review. Psychometric tests are used for sampling behaviour and describing it with categories or scores (Salkind, 2012; Tredoux & Durheim, 2013). The following measuring instruments were chosen:

- A socio-demographic questionnaire was used to ascertain personal data regarding age, gender, race and marital status.

5.2.1 Measurement of wellness-related dispositional attributes

- The Orientation to Life Questionnaire (OLQ) was developed by Antonovsky (1987) to measure the construct sense of coherence. It consists of 29 Likert-type self-rating items and respondents are required to make a choice from a seven-point semantic differential scale with two anchoring phrases (Antonovsky, 1993).
- The Assessing Emotions Scale (AES) (Schutte, Malouff, Hall, Haggerty, Cooper, Golden & Dornheim, 2007) is a 33-item self-report inventory which uses a five-point Likert scale to measure individuals' emotional intelligence traits.
- The Maslach Burnout Inventory (MBI) was developed by Maslach, Jackson and Leiter, (1996) and is used to measure burnout. It is a 16-item general survey with a seven-point Likert scale to measure the subdimensions of exhaustion, cynicism and reduced sense of professional efficacy.

5.2.2 Measuring resiliency-related behavioural capacities

- The Career Adapt-ability Scale Form 1.0 (CAAS) (Savickas & Porfeli, 2012) is a multi-factorial self-rating measure of career adaptability consisting of 55 items with a five-point Likert-type rating scale to measure the five subscales: concern, control, curiosity, cooperation and confidence.
- The Personal Views Survey II (PVS-II) (Maddi, 1987) is a self-rated multi-factorial measure for measuring hardiness. The measure contains 50 items with a four-point Likert scale to measure the three subscales (commitment, control and challenge).

5.2.3 Socio-demographic questionnaire

A socio-demographic questionnaire was constructed to gather information on the socio-demographic variables of age, gender, race and marital status.

5.2.4 Psychometric properties of the measures of wellness-related dispositional attributes

The discussion below explores the rationale, description, administration, interpretation, validity, reliability and motivation of choice of the wellness-related dispositional attributes measuring instruments.

5.2.4.1 Orientation to Life Questionnaire (OLQ)

(i) Development of and rationale for the OLQ

The Orientation to Life Questionnaire (OLQ) was developed by Antonovsky (1987) to measure the three dimensions of sense of coherence namely, comprehensibility, manageability and meaningfulness. Comprehensibility assesses how individuals make cognitive sense of the work place. Manageability assesses how individuals perceive the work as consisting of experiences that are bearable. Meaningfulness assesses how individuals make emotional and motivational sense of work demands (Antonovsky, 1993).

(ii) Description of the OLQ scales

The Orientation to Life Questionnaire (OLQ) consists of 29 Likert-type self-rating items and respondents are required to make a choice from a seven-point semantic differential scale with two anchoring phrases (Antonovsky, 1987). It contains three subdimensions, namely, (1) comprehensibility (11 items), (2) manageability (10 items), and (3) meaningfulness (8 items) (Antonovsky, 1987). Items are scored on a seven point ordinal rating scale ranging from 'very often' (1) to 'very seldom or never' (7) for five of the items and from 'no clear goals or purpose at all' (1) to 'very clear goals and purpose' (7) for the remaining items. The following dimensions are measured, comprehensibility (e.g. "does it happen that you have feelings inside you would

rather not feel? – Very often versus very seldom or never), manageability (e.g. “when something unpleasant happened in the past your tendency was: ‘To eat yourself up’ about it versus to say ‘OK, that’s that, I have to live with it’, and go on) and meaningfulness (e.g. “you anticipate that your personal life in the future will be: ‘Totally without meaning or purpose versus full of meaning and purpose.’).

(iii) *Administration and interpretation of OLQ*

The OLQ can be administered individually or in groups (Bezuidenhout & Cilliers, 2010). There is no time limit in which the respondent has to complete the questionnaire and it takes approximately 15 to 20 minutes to complete. Supervision is not necessary as the questionnaire is self-explanatory. The scores on each item ranged from one (weak) to seven (strong), and four items had a reverse scale. All the items are converted to parallel scores and the sum score is calculated by summing up the raw scores. The sense of coherence variable is a sum variable consisting of three factors based on individual questions.

Each respondent’s test form is scored by using a scoring key that contains directions for scoring each subscale. The scores for each subscale are considered separately and are not combined into a single, total score, thus, three scores are computed for each respondent. If desired, for individual feedback, each score can then be coded as low, average or high by using the numerical cut-off points listed on the scoring key (Bezuidenhout & Cilliers, 2010)). The higher the score, the higher the levels of sense of coherence individual experiences on the job.

(iv) *Validity and reliability of the OLQ*

Reliability studies on the OLQ found a Cronbach’s alpha ranging from .51 to .90. The Cronbach’s alpha for the total OLQ was .90 (Bezuidenhout & Cilliers, 2010). The OLQ questionnaire has been used in at least 33 languages in 32 countries with at least 15 different versions of the questionnaire (Eriksson & Lindström, 2005). In 124 studies using the OLQ-29, the Cronbach’s α ranges from .70 to .95. The α values in 127 studies using the OLQ-13 range from .70 to .92, and in 60 studies using a modified OLQ scale range from .35 to .91. Test-retest correlation show stability and range from .69 to .78 (1 year), .64 (3 years), .42 to .45 (4 years), .59 to .67 (5 years) to .54 (10 years). The means of OLQ-29 range 100.50 (SD 28.50) to 164.50

(SD 17.10) points and OLQ-13 from 35.39 (SD 0.10) to 77.60 (SD 13.80) points. The OLQ scale seems to be a reliable, valid, and cross culturally applicable instrument measuring how people manage stressful situations and stay well (Eriksson & Lindström, 2005).

(v) *Motivation for choice*

The OLQ is a well established measure of sense-of-coherence. Measures across different languages and cultures have also been reported to produce similar results regarding validity and reliability (Bezuidenhout & Cilliers, 2010).

5.2.4.2 *Assessing Emotions Scale (AES)*

The Assessing Emotions Scale (AES) (Schutte et al., 2009) measures individuals' emotional intelligence traits.

(i) *Development and rationale of AES*

The Assessing Emotions Scale (AES) developed by Schutte et al. (2009) is a 33-item self-report inventory. The assessing emotions scale measures the following dimensions namely, perception of emotions, managing own emotions, managing other's emotions and utilising emotions. It is a self report to assess characteristics and traits of emotional intelligence. It focuses on individuals' self-reflection and emotional functioning.

(ii) *Description of the AES scales*

The questionnaire has 33 items measuring emotional intelligence, rated on a five point Likert type scale. The higher score represents higher emotional intelligence. A five-point Likert scale (1 = strongly disagree; 5 = strongly agree) is used to measure the following four emotional intelligence traits: perception of emotion (10 items; e.g., "I am aware of my emotions as I experience them"), managing own emotions (9 items; e.g., "I have control over my emotions"), managing others' emotions (8 items; e.g., "I like to share my emotions with others") and utilisation of emotions (6 items; e.g., "When my mood changes, I see new possibilities").

(iii) *Administration of the AES*

The AES is a self-rated questionnaire which can be administered individually or in groups and takes approximately 15 to 20 minutes to answer, although there is no time limit. The AES is administered according to the rating and scoring instructions provided by Schutte et al. (2009). Supervision is not necessary as the questionnaire is self-explanatory.

(iv) *Interpretation of the AES*

Each facet subscale is measured separately and reflects the respondents' preferences and feelings regarding the various items that relate to a specific facet of emotional intelligence. As a result, analysis can be carried out as to what facets are perceived to be true for the respondents and which are not. The higher the score, the truer the statement is for the respondent.

(v) *Validity and reliability of the AES*

Validity studies on the AES justify the various underlying constructs of the four subscales (Chapman & Hayslip, 2006; Ciarrochi et al., 2009; Saklofske, Austin & Minksi, 2003). In terms of reliability (internal consistency). Ciarrochi et al. (2009) report Cronbach alpha coefficients of .55 (moderate) to .78 (high). Test-retest reliability tests (Schutte et al., 1998) indicate a coefficient score of .78 for total scale scores. Validity studies (Bracket & Mayer, 2003; John & Srivastava, 1999; McCrae & Costa, 1999; Schutte et al., 1998) confirm both the convergent and divergent validity of the AES.

(vi) *Motivation for choice*

The AES (Schutte et al., 1999) will be used for the present study because of its high degree of validity and reliability. It is also affordable and easy to administer. Further to this, the constructs measured by the AES are applicable and relevant to this research.

5.2.4.3 Maslach's Burnout Inventory (MBI)

(i) *Development of and rationale for the MBI*

The Maslach Burnout Inventory (MBI) developed by Maslach, Jackson and Leiter (1996), was used to measure burnout. The MBI measures the following dimensions namely exhaustion, cynicism and professional efficacy. Exhaustion assesses the depletion of physical and mental energy. Cynicism assesses the negative detached and impersonal attitude to work. Professional efficacy assesses the belief that one is no longer effective at work (Maslach et al., 1996).

(ii) *Description of the MBI scales*

To assess burnout, the 16-item general MBI survey was used to measure the three dimensions of burnout namely, exhaustion, cynicism and reduced sense of professional. The MBI includes items that measure emotional exhaustion (five items; e.g. 'Working all day is really a strain for me'), cynicism (five items; e.g. 'I doubt the significance of my work'), and professional efficacy (six items; e.g. 'I have accomplished many worthwhile things in this job'). The items are scored using a six-point Likert scale that range from 0 ('never') to 6 ('every day'). Respondents are expected to rate their responses as 1 = strongly disagree up to 6 = strongly agree and 3= neither agree nor disagree. The higher the number, the truer that item is to the respondent.

(iii) *Administration and interpretation of the MBI*

The Maslach burnout inventory is a self-rated questionnaire which can be administered individually or in groups and takes approximately 15 to 20 minutes to answer, although there is no time limit. The MBI is administered according to the rating and scoring instructions provided by Maslach et al. (1996). Supervision is not necessary as the questionnaire is self-explanatory.

Each subscale is measured separately which reflects the participant's burnout on these dimensions namely, personal efficacy, depersonalisation and exhaustion. A higher degree of burnout is reflected in high scores of exhaustion and depersonalization and low scores on the personal efficacy (Bezuidenhout & Cilliers, 2010).

(vi) *Validity and reliability of the MBI*

Reliability studies have shown the MBI to have Cronbach's alpha ranging from .80 to .70, which is acceptable (Bezuidenhout & Cilliers, 2010; Edwards, Thomas, Rosenfield & Booth Kewley, 1997). Validity studies have proven variance for the exhaustion subscale to be 4.5%, 1.9% for the professional-efficacy subscale, and 4.1% for the cynicism subscale, thereby supporting the validity of the scale (Bezuidenhout & Cilliers, 2010).

(v) *Motivation of choice*

The MBI is the most universally used instrument of choice to assess burnout (Bezuidenhout & Cilliers, 2010). The MBI was consequently chosen to measure burnout in the sample of call centre agents; it was chosen for its conceptual congruence to the definition of burnout that will be used in the literature study. The constructs measured by the MBI are applicable to and relevant for this research.

5.2.5 Psychometric properties of the measures of resiliency-related dispositional attributes

The discussion below explores the rationale, description, administration, interpretation, validity, reliability and motivation of choice of the resiliency-related behavioural capacities measuring instruments

5.2.5.1 The Career Adapt-ability Scale (CAAS)

(i) *Development of and rationale for the Career Adapt-ability Scale (CAAS)*

The original, research-based Career Adapt-Abilities Scale Form 1.0 (CAAS) developed by Savickas and Porfeli (2012) was used to measure the participants' career adaptability. The CAAS measures the following dimensions namely, concern, control, curiosity, cooperation and confidence. Concern relates to an individuals' concern with regard to their vocational future. Control relates to the individuals' control of the preparation for a vocational future. Curiosity assesses individuals' exploring their selves and future scenarios. Cooperation assesses

individuals' cooperation displayed in careers. Confidence assesses individuals pursuing aspirations (Savickas & Porfeli, 2012).

(ii) *Description of the CAAS scales*

The CAAS (Savickas, 2010) is a multi-factorial self-rating measure consisting of 55 items and five subscales: concern, control, curiosity, cooperation and confidence. Each of the dimensions has a number of items/structured questions to measure it. The items are structured in a statement format with a five-point Likert-type rating scale for each statement. A 5-point Likert-type scale (1 = not strong; 5 = strongest) was used for subjective responses to each of the items for the five subscales. The dimension concern has 11 items and measures the individuals concern about his or her vocational future (e.g. 'Planning important things before I start'). The dimension control has 11 items and measures the individuals control in order to assist his or her preparation for a vocational future (e.g. 'Making decisions by myself'). The dimension curiosity has 11 items and measures the construct curiosity by exploring possible selves and future scenarios (e.g. 'Exploring my surroundings'). The dimension cooperation has 11 items and measures individual's cooperation displayed within his or her career (e.g. 'Becoming less self-centred'). The dimension confidence which has 11 item measure the individuals' confidence in pursuing his or her aspirations (e.g. 'Performing tasks efficiently').

(iii) *Administration and interpretation of the CAAS*

The CAAS is a self-administered questionnaire and takes about ten minutes to complete. The instructions for its completion are provided. Respondents rate the statements on the basis of their self-perceived career adaptability. Each subscale is measured separately which reflects the participant's career adaptability on these dimensions namely, concern, control, curiosity, commitment and cooperation. Therefore it is possible to analyse which dimensions are perceived to be true for the participants and which are not (Ferreira, 2012). The higher the score the truer the statement is for the respondent. Subscales with the highest means scores will be regarded as the respondent's dominant career adaptability attribute. The ratings are defined as follows: 1=strongest; 2=very strong; 3=strong; 4=somewhat strong; 5=not strong.

(iv) *Validity and reliability of the CAAS*

Research findings on the reliability of the questionnaire indicate that it is a reliable measuring instrument for measuring career adaptability (Ferreira, 2012). Cronbach's alpha coefficients (internal consistency) for the five subscales were as follows: concern (.88), control (.90), curiosity (.90), cooperation (.85) and confidence (.90). The reliability and validity of the instrument was confirmed by Ferreria and Coetzee (2013).

(v) *Motivation of choice*

The CAAS was designed to measure career adaptability in the organisational context, which was relevant to this research. The purpose of this research is to investigate broad trends and certain relationships between variables. The measuring instrument was deemed applicable for the purpose of this study.

5.2.5.2 *The Personal Views Survey II (PVS II)*

(i) *Development of and rationale for the Personal Views Survey II (PVS II)*

The Personal Views Survey II (PVS-II) which was developed by Maddi's (1987) was used to measure the participants' hardiness. The PVS II consists of the following dimensions: control, assesses an individual's belief that they can influence life events. Commitment assesses how an individual can be fully involved as a social being. Challenge assesses how individual regards change (Maddi, 1987).

(ii) *Description of the PVS II scales*

The PVS-II (Maddi, 1987) is a self-rated multi-factorial measure. The measure contains 50 items and three subscales (commitment, control and challenge). Each of these dimensions has a number of items or structured questions to measure it. The dimension commitment consists of 15 items and indicates that an individual is fully involved as a social being. The dimension control consists of 17 items and indicates that an individual believes that he or she can influence life's events, the emphasis is on personal responsibility. The dimension challenge consists of 18 items and indicates that an individual regards change instead of stability as the norm of life. The items are measured on a 4-point Likert-type scale (1 = not at all true; 4 = completely true) for the following three subscales: commitment-alienation (e.g. "I often wake up eager to take up my life where I left it off the day before"; "Most of my life gets wasted doing things that don't mean anything"), control-powerlessness (e.g. "Planning ahead can help avoid most future problems"; "No matter how hard I try, my efforts will accomplish nothing") and challenge-threat (e.g. "I enjoy being with people who are unpredictable"; "I want to be sure someone will take care of me when I get old").

(iii) *Administration and interpretation of the PVS II*

The PVS-II is a self-administered instrument and takes about 15 minutes to complete. The items are structured in a statement format with the rating scale for each statement. Clear instructions are provided for the completion of the instrument. Respondents rate the statements on the basis of their self-perceived hardiness. Each subscale is measured separately and reflects the participants' hardiness on these dimensions, therefore it is possible to analyse which dimensions are perceived to be true for the participants and which are not. The higher the score, the truer the statement is for the respondent. Subscales with the highest means scores are regarded as the respondent's dominant hardiness attribute. The ratings are defined as follows: 0=not at all true; 1=a little true; 2=reasonable; 3=completely true.

(iv) *Validity and reliability of the PVS II*

Factor analysis by Maddi (1987) confirmed the construct validity of the PVS-II. In terms of internal consistency reliability, Maddi (1987) reports the following Cronbach's alpha coefficients:

.70 to .75 for commitment; .61 to .84 for control; .60 to .71 for challenge and .80 to .88 for total hardiness. In research conducted by Ferreira and Coetzee (2013), the Cronbach Alpha coefficients (internal consistency) for the three subscales were as follows: commitment (.76), control (.71) and challenge (.59).

(v) *Motivation of choice*

The constructs measured by the PVS II are applicable to and relevant for this research. Since the purpose of the research study was not to make individual predictions based on the PVS-II, but instead to investigate broad trends and to investigate certain relations between variables, the instrument was deemed applicable for the purpose of this study.

5.3 ETHICAL CONSIDERATIONS AND ADMINISTRATION OF THE PSYCHOMETRIC BATTERY

The researcher applied for ethical clearance from the University Research Ethics Committee. The researcher obtained permission from the Human Resource manager of the call centres involved. In order to gain the relevant information for this study, questionnaires were posted and/or handed out by the researcher (after gaining consent from the organisation) to approximately 500 call centre agents.

The employees were invited to participate voluntarily in the study by means of a participation invitation letter which was attached to the questionnaire. The covering letter also stated that completing the questionnaire and returning it constitutes agreement to use the results for research purposes only. In this letter employees were informed that completing the questionnaire would be considered informed consent. All participants were assured of anonymity and confidentiality. Anonymity was ensured as participants were not asked to give any identifying information. Confidentiality was assured by explaining to the participants that all completed questionnaires should be placed in a sealed box situated in the reception area of the organisation. The researcher would empty the box at regular intervals.

In order to comply with legislation, care was taken in the choice and administration of the psychometric battery. According to the Employment Equity Act, No. 55 of 1998, section 8 which

states that all psychological testing and similar assessment are prohibited unless the test is scientifically valid and reliable and can be applied fairly to all employees, and is not biased against any employee or group. The validity of items was evaluated, a reliable process was followed during data collection and data were analysed, reported and interpreted in a valid, reliable, fair and unbiased manner. Ethical and employment equity issues were taken into consideration in this study.

5.4 SCORING OF THE PSYCHOMETRIC BATTERY

Responses to each of the instrument measures were initially captured on a Microsoft Excel spreadsheet where each row was a participant and each column was a question. The completed questionnaires were scored by an independent statistician. All data were imported and analysed using statistical methods, specifically utilising the statistical programmes SPSS (Statistical Package for Social Sciences) Version 20.0 for the Microsoft Windows platform (SPSS Inc., 2011), and SAS version 9.2 (SAS, 2008) .

5.5 FORMULATION OF THE RESEARCH HYPHOTHESES

A research hypothesis is a tentative statement of a relationship between two variables and is a educated guess about how the social world works (Tredoux & Durrheim, 2013). In the context of the present study, the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) are regarded as the independent variables and the resiliency-related behavioural capacities (career adaptability and hardiness) are regarded as the dependent variables. Hypotheses are rejected when hypothesis statements cannot be answered through scientific observation and they are accepted when statistically proven (Tredoux & Durheim, 2013).

In order to address the empiral research questions formulated in chapter 1, a number of research hypotheses were formulated. These are summarised in Table 5.6 below.

Table 5.6: *Summary of the Empirical Research Hypotheses*

Empirical research aim	Research hypothesis	Statistical procedure
<p>Research aim 1:</p> <p>To investigate the nature of the statistical <i>interrelationships</i> between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness) as manifested in a sample of respondents employed in a call centre environment.</p>	<p>H₀₁: There is no statistically significant positive interrelationship between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness).</p> <p>H_{a1}: There is a statistically significant positive interrelationship between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness).</p>	<p>Correlation analysis</p>

Empirical research aim	Research hypothesis	Statistical procedure
<p>Research aim 2:</p> <p>To assess the nature of the <i>overall</i> statistical relationship between the wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout), as a composite set of independent latent variables, and the resiliency-related behavioural capacities construct variables (career adaptability and hardiness) as a composite set of dependent latent variables</p>	<p>H₀₂: The wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout), as a composite set of independent latent variables are not significantly and positively related to the resiliency-related behavioural capacities construct variables (career adaptability and hardiness) as a composite set of dependent latent variables.</p> <p>H_{a2}: The wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout), as a composite set of independent latent variables are significantly and positively related to the resiliency-related behavioural capacities construct variables (career adaptability and hardiness) as a composite set of dependent latent variables.</p>	<p>Canonical correlation analysis</p>

Empirical research aim	Research hypothesis	Statistical procedure
<p>Research aim 3:</p> <p>To determine whether the wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).</p>	<p>H₀₃: H03: The wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout) do not positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).</p> <p>H_{a3}: The wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).</p>	Multiple regression analysis

Empirical research aim	Research hypothesis	Statistical procedure
<p>Research aim 4:</p> <p>Based on the overall statistical relationship between wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct variables (career adaptability and hardiness), to determine whether there a good fit between the elements of the empirically manifested structural model and the theoretically hypothesised model.</p>	<p>H₀₄: The theoretically hypothesised psychological coping profile does not have a good fit with the empirically manifested structural model.</p> <p>H_{a4}: The theoretically hypothesised psychological coping profile has a good fit with the empirically manifested structural model.</p>	<p>Structural equation modelling</p>

Empirical research aim	Research hypothesis	Statistical procedure
Research aim 5 To assess whether the biographical variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct variables.	<p>H₀₅: The biographical variables (age, gender, race and marital status) do not significantly and positively moderate the relationship between the independent (wellness-related dispositional attributes construct variables) and dependent (the resiliency-related behavioural capacities construct variables) latent construct variates.</p> <p>H_{a5}: The biographical variables (age, gender, race and marital status) significantly and positively moderate the relationship between the independent (wellness-related dispositional attributes construct variables) and dependent (the resiliency-related behavioural capacities construct variables) latent construct variates</p>	Hierarchical moderated regression analysis

Empirical research aim	Research hypothesis	Statistical procedure
Research aim 6 To assess whether significant differences exist between the sub-groups of biographical variables that acted as significant moderators between the the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct variables, as manifested in the sample of respondents.	<p>H₀₆: There are no significant mean differences between the sub-groups of the biographical variables that act as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural attributes construct variables.</p> <p>H_{a6}: There are significant mean differences between the sub-groups of the biographical variables that act as significant moderators between wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct variables.</p>	Tests for significant mean differences

Note: H0 (null hypothesis); Ha (alternative hypothesis)

As shown in Table 5.6, the research hypotheses will be tested by means of descriptive, correlation and inferential (multivariate) statistics.

5.6 STATISTICAL PROCESSING OF THE DATA

The objective of quantitative research is to provide valid inferences from the sample data available from some larger population in order to generalise (Salkind, 2012; Tredoux & Durheim, 2013). It can however not be expected that a non-probability purposive sample from a population will yield adequate sample values. For this purpose, statistical methods have been developed which make it possible to determine the confidence to which such inferences can be drawn. The two most commonly used methods of statistical inferences are (1) estimation using confidence intervals and (2) null hypotheses testing. The present study will make use of the latter (*i.e.*, null hypothesis testing) in order to test the hypotheses that were formulated in point 5.5.

Statistical analyses comprised three major stages, each consisting of various steps of statistical analysis: descriptive statistical analysis, correlational analyses, and inferential (multivariate) statistical analyses as depicted in figure 5.5

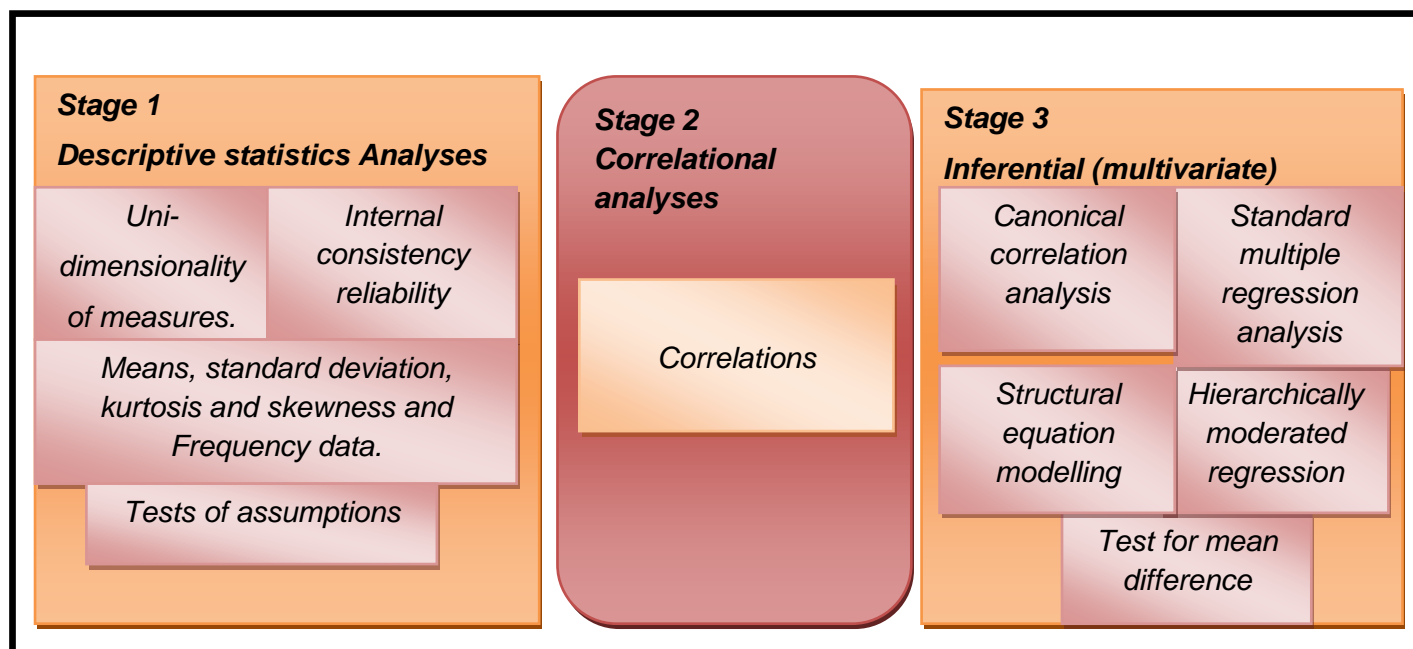


Figure 5.5: Steps followed in statistical analyses

5.6.1 Stage 1: Descriptive statistical analyses

Descriptive statistics are used to describe data in manageable form. Descriptive statistics describe the sample characteristics in numerical data in terms of the chosen constructs as well as socio-demographic variables (Babbie, 2010; Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010; Tredoux & Durheim, 2013).

This stage consists of four steps, namely:

- Determining the internal consistency reliability of the measuring instruments by means of Cronbach's Alpha coefficient;
- Evaluating the unidimensionality of the OLQ, AES, MBI and CAAS and PVS- II by using Rasch analysis;
- Determining the means and standard deviations, kurtosis and skewness of the categorical and frequency data; and
- Testing assumptions (correlational analysis, canonical correlation analysis, multiple regression analysis, moderated regression analysis, and tests for significant mean differences).

5.6.1.1 Internal consistency reliability analysis (OLQ, AES, MBI, CAAS, PVS-II)

The reliability of an instrument is the degree to which the observed variable measures the 'true' value and is 'error free'; thus is the opposite of the measurement error. If the same measure is asked repeatedly, the more reliable measures will show greater consistency than less reliable measures (Salkind, 2012; Tredoux & Durrheim, 2013). Reliability is the internal consistency of which each item in a scale correlates with each other item, ensuring that a test measuring the same thing more than once has the same outcome results (Salkind, 2012; Terre Blanche & Durrheim, 2002). The Cronbach Alpha coefficient was used in this study to determine the internal consistency reliability of the five instruments. The Cronbach Alpha measure estimates the internal consistency reliability based on the number of the items in the test and the average intercorrelation among test items (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

The Cronbach Alpha coefficient ranges from 0 to 1, with values of .60 to .70 deemed the lower level of acceptability (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis,

2010). A Cronbach Alpha coefficient of .80 and .90 is considered a desirable and reliable coefficient (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010). However, the reliability coefficients as low as .60 and .30 can be regarded as acceptable for broad group measures (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

5.6.1.2 *Rasch analysis: Assessing unidimensionality*

Rasch analysis was used to evaluate the unidimensionality of the various scales by calculating the infit and outfit chi-square statistics in order to obtain an indication of how well the items measured the underlying constructs (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010). The item and person separation and reliability indices determine the reliability of the rating scale (Brand-Labuschagne, 2010). The person separation reliability is similar to the traditional internal consistency reliability measure (Cronbach's Alpha coefficient) which estimates the true person variance (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010). The item reliability indicates how well difficulty levels of the item are distributed among the measured latent variable and evaluates the chance of replicating the item placement in other samples (Brand-Labuschagne, 2010).

5.6.1.3 *Means, standard deviations, skewness, kurtosis and frequencies*

The means and standard deviations for all the dimensions of the wellness dispositional attributes, (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness) were determined in the empirical study (Salkind, 2012; Tredoux & Durrheim, 2013). The mean (M) is a measure for central tendency. It is the arithmetic average that is the sum divided by the number of cases. (Salkind, 2012). The calculated mean is used to compute the average scores that are obtained for the different components of the questionnaires (Salkind, 2012).

Standard deviation (SD) is the measure of dispersion around the mean and how they measure variability (Salkind, 2012; Tredoux & Durrheim, 2013). Therefore it is the square root of the variance. In a normal distribution, 68% of cases fall within one standard deviation of the mean, and 95% of the cases fall within two standard deviations (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

In addition, skewness and kurtosis were also used. Skewness is a measure of symmetry, or more precisely, the lack of symmetry. A distribution, or data set, is symmetric if it looks the same to the left and right of the center point (Salkind, 2012). Negative values for skewness indicate data that are skewed left and positive values for skewness indicates data that are skewed right. Kurtosis is a measure of whether the data peaked or flat relative to a normal distribution, that is, data sets with high kurtosis tend to have a distinct peak near the mean, decline rather rapidly, and have heavy tails. Data sets with low kurtosis tend to have a flat top near the mean rather than a sharp peak. A uniform distribution would be the extreme case (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

Frequency tables are used to indicate the distribution of socio-demographic variable data and enable the researcher to describe the sample population (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

5.6.1.4 Tests for assumptions

In most circumstances, the objective of research is to make valid inference from a sample of data from a population (Salkind, 2012). Random samples from a larger population will not provide exact values that is applicable to the whole population (Salkind, 2012). For the purposes of this study, statistical methods are used to make it possible to determine the confidence with which such inferences can be made (Salkind, 2012). The following assumptions underlying multivariate procedures and tests for significant mean differences as addressed were made; these will be discussed in more detail:

- The accuracy of data entered into the data file and missing values;
- Ratio of cases to independent variables;
- Outliers (univariate and multivariate);
- Normality, linearity and homoscedasticity;
- Multicollinearity and singularity

(a) The accuracy of data entered into the data file and missing values

To address the issues of missing values in this study, screening was conducted to detect any invalid codes. Frequency statistics for each of the items were requested (by means of the SPSS [2.0] frequency procedure) and these were scrutinised in terms of the minimum

and maximum values as well as means and standard deviations. Only completed questionnaires were accepted for this study, therefore no missing data were detected (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

(b) Ratio of cases to independent variables

A ratio distribution is a probability distribution constructed as the distribution of the ratio of random variables having two other known distributions (Salkind, 2012). A rule of thumb in the cases-to independent variables ratio should be minimum 5 cases per predictor (5:1), as a need to provide enough data to provide reliable correlation estimates. Ideally 20 cases per predictor (20:1), with an overall N of at least 100; this allows sufficient power to detect a medium of R^2 of .13 (Salkind, 2012).

(c) Outliers (univariate and multivariate)

Outliers are observations with a unique combination of characteristic identifiable as distinctly different from the other observations and constitutes an unusually high or low on a variable (univariate) or a unique combination of values (multivariate) across several variables that make this observation stand out from the other (Salkind, 2012). The univariate identification of outliers examines the distribution of observations for each variable in the analysis and selects outliers for those cases falling at the outer ranges (high or low) of the distribution. (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010). The multivariate analysis involves more than two variables. A multivariate assessment involves observation across a set of variables (Hair et al., 2010). In this study outliers were detected by visually examining normal scores of each variable.

(d) Normality, linearity and homoscedasticity

The most fundamental assumptions in multivariate analysis is normality which refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution. The present study made use of skewness and kurtosis as well as the Kolmogorov-Smirnov test. Kurtosis is the peaked or flatness of the distribution compared with normal distribution. Kurtosis refers to the height of the distribution whereas skewness is the balance of the distribution (Hair et al., 2010) The Kolmogorov-Smirnov statistic quantifies the distance between empirical distribution function of the sample and the

cumulative distribution function of the reference distribution, or between the empirical distribution functions of two samples (Tabachnick & Fidell, 2007).

Other assumptions required for multivariate analysis focus on the relationships between pairs of metric variables. It is assumed that the relationship between metric variables is linear, and the variance is homogenous through the range of both metric variables. If both the linearity and the homoscedasticity assumptions are met, the plot of points will appear as a rectangular band in a scatterplot. If there is a strong relationship between the variables, the band will be narrow. If the relationship is weaker, the band becomes broader (Tabachnick & Fidell, 2007). If the pattern of points is curved instead of rectangular, there is a violation of the assumption of linearity. If the band of points is narrower at one end than it is at the other (funnel-shaped), there is a violation of the assumption of homogeneity of variance. Violations of the assumptions of linearity and homoscedasticity may be correctable through transformation of one or both variables, similar to the transformations employed for violations of the normality assumption. Linearity is used to express the concept of the model possessing the properties of additivity and homogeneity (Tabachnick & Fidell, 2007). Linear models predict values that fall in a straight line by having a constant unit change slope of the dependent variable for a constant unit change of the independent variable. Linearity means that there is a straight line relationship between the independent variables and the dependent variable. This assumption is important because regression analysis only tests for a linear relationship between the independent variables and the dependent variables (Tabachnick & Fidell, 2007).

The assumption of homoscedasticity is when the variance of the error terms (e) appears constant over a range of predictor variables, the data is said to be homoscedastic (Tabachnick & Fidell, 2007). The assumption of equal variance of the population error E (where E is estimated from e) is critical to the proper application of many multivariate techniques (Hair et al., 2010). When the error terms have increasing or modulating variance the data are said to be heteroscedastic. Homoscedasticity assumption is based that the residuals are approximately equal for all predicted dependent scores (Tabachnick & Fidell, 2007). Another way of thinking about this is that the variability in scores for independent variables is the same at all values of the dependent variables. Homoscedasticity is checked by looking at the same residuals plot talked about in the linearity and normality sections. Data are assumed to be homoscedastic if the residuals plot is the same width for all values of the predicted dependent variable. Heteroscedasticity is usually shown by a cluster of

points that is wider as the values for the predicted dependent variable get larger (Tabachnick & Fidell, 2007). Homoscedasticity can also be checked by looking at a cluster of points that are approximately the same width all over (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010). No problems were detected with scatterplots in this study as bivariate scatterplots for all possible variable pairs were utilised.

(e) *Multicollinearity and singularity*

When there is high correlation between dependent variables, one dependent variable becomes a near-linear combination of the other dependent variables. Under such circumstances, it would become statistically redundant and suspect to include both combinations. Multicollinearity occurs when variables are very highly correlated ($r = .90$), whereas singularity is when the independent variables are perfectly correlated and one independent variable is a combination of one or more of the other independent variables (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010; Salkind, 2012). In the present study the variance inflation factor, eigen-values and conditions indices were utilised to test for the assumptions of multicollinearity and singularity and no problems were detected in the tests (Hair et al., 2010).

5.6.2 Stage 2: Correlation analyses

The objective of correlation analyses is to correlate simultaneously several metric dependent variable and several metric independent variables. Pearson's product moment correlation coefficient (r) is used to calculate the direction and strength between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness) as manifested in a sample of respondents employed in a call centre environment (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010). The Pearson's product moment correlation quantifies the strength and relationship of the direction of the relationship which can be identified by the correlation coefficient. The closer the correlation coefficient is to 1.00 or $=1.00$ the stronger the relationship (Tredoux & Durrheim, 2013). In this study, the Pearson-product correlation coefficient was used to test for statistically significant positive and negative inter-relationship between the wellness related-dispositional attribute (sense of coherence, emotional intelligence and burnout) , and the two resiliency related behavioural capacities construct variables career adaptability and

hardiness regarding positive or negative relationships that exist between the scores on the OLQ, AES, MBI and CAAS and PVS-II.

5.6.3 Stage3: Inferential (multivariate) statistics

Inferential and multivariate statistics were performed to enable the researcher to make inferences about the data. Inferential statistics are used to reach conclusions which extend beyond the immediate data alone, that is, to make inferences from the data obtained to more general conditions (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

This stage consisted of five steps, namely:

1. Conducting canonical correlation analysis to empirically investigate the overall statistical relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout (as a set of independent latent variables), and the resiliency-related behavioural capacities construct variables career adaptability and hardiness (as the set of dependent latent variables) in order to test hypotheses H02 and Ha2.
2. Conducting standard multiple regression analysis to empirically investigate whether the wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables career adaptability and hardiness, in order to test hypotheses H03 and Ha3.
3. Conducting Structural Equation Modelling (SEM) to determine the elements of the empirically manifested psychological coping profile, and to assess the fit between the empirically manifested profile and the canonical measurement model in order to test hypotheses H04 and Ha4.
4. Performing hierarchical moderated regression analysis to empirically investigate whether the socio-demographic variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities construct variables career adaptability and hardiness, in order to test hypotheses H05 and Ha5.

5. Conducting tests for significant mean differences to empirically investigate whether significant differences exist between the groups of the socio-demographic variables that act as significant moderators between the wellness-related dispositional attributes and the resiliency-related behavioural capacities construct variables (career adaptability and hardiness), as manifested in the sample of respondents, in order to test hypotheses H06 and Ha6.

5.6.3.1 *Canonical correlation analysis*

Canonical correlation analyses was used to examine the overall relationship between the two multivariate sets and the strength of association between the two set of canonical variates (the wellness-related dispositional attributes, the constructs of sense of coherence, emotional intelligence and burnout as a composite set of independent latent variables and the resiliency-related behavioural capacities, the construct of career adaptability and hardiness as a composite set of dependent variables). Canonical correlation provides insight into the potential relationship between the two sets of canonical variates (Hair et al., 2010).

Canonical correlation measures the strength of the overall relationship between the linear composite (canonical variates) for the independent and dependent variables. It represents the bivariate correlation between two canonical variates (Hair et al., 2010). Canonical correlation places the fewest restrictions on the types of data in which it operates and is of a higher quality and may be presented in a more interpretable manner (Salkind, 2012).

According to Hair et al. (2010), canonical correlations reflect the variance shared by linear composites, not the variance extracted from the variables. Canonical weights can be subject to a great deal of instability, these weights are derived to maximise the correlations and not the variance extracted.

Due to the instability and variability of canonical weights and multi-collinearity concerns (Hair et al., 2010), only the individual canonical structure correlations (loadings) and their squared canonical structure loadings are considered in interpreting relative importance and magnitude of importance (practical significance) in deriving the two canonical variate constructs: the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) as the independent canonical variate construct, and resiliency-

related behavioural capacity (career adaptability and hardiness) as the dependent canonical variate construct. The canonical structure correlations (loadings) measure the strength of the canonical relationship between a canonical variate and its individual original variables in the set of variables (within-set variable-to-variate correlation) (Hair et al., 2010). Those variables that correlate highly ($\geq .30$) with its canonical function variate will be regarded as having more in common with it.

Research hypothesis Ha2 was tested using canonical correlation analysis: The wellness related-dispositional attributes constructs variate as a set of composite independent latent variables (sense of coherence, emotional intelligence and burnout) is significantly and positively related to the resiliency-related behavioural capacities constructs variate as a composite set of dependent latent variables (career adaptability and hardiness). A Helio plot was also further used to illustrate the overall canonical correlation between the independent and dependent canonical variates.

5.6.3.2 Standard multiple regression analysis

Multiple regression analysis is the most appropriate method of analyses when a single metric dependent variable is presumed to be related to two or more metric independent variables. The objective is to predict the changes in the dependent variable in response to changes in the independent variables (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

In the context of the present study, the wellness- related dispositional attributes construct variate is regarded as the independent variables. The resiliency-related behavioural capacities construct variate variables, career adaptability and hardiness, are regarded as the dependent variables.

In multiple regression each independent variable is weighted by the regression analyses procedure and to ensure maximum prediction from the set of dependent variables. The use of multiple regression should enable the researcher to test the models about precisely which set of variables is influencing career adaptability and hardiness by giving the direction and size of the effect of the independent variable (wellness-related dispositional attributes) on the dependent variables (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

Research hypothesis Ha3 was tested by conducting multiple regression analyses: The wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).

5.6.3.3 *Structural Equation Modelling (SEM)*

Structural Equation Modelling (SEM) relates to a general, chiefly linear, and cross-sectional statistical modelling technique, which incorporates and integrates path analysis and factor analysis (Hair et al., 2010). It is a technique that allows separate relationship for each of a set of dependent variables. Structural equation modeling provides the most appropriate and estimation technique for a series of separate multiple regression equations estimated simultaneously (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

Structural Equation Modelling comprises of two basic components namely the structural model and the measurement model. The structural model relates to multiple observed independent variables to multiple observed dependent variables. A structural model tests more complex models than regression models. In this model the theory, prior experience and guidelines enable the researcher to distinguish which variable predicts each independent variable. In the measurement model, the researcher uses several variables (indicators) for a single independent or dependent variable. Using confirmatory factor analysis the researcher can assess the contribution of each scale item as well as incorporate how well the scale measures the reliability. The other theoretical models include regressions, path and confirmatory factor analyses. The regression model consists of a single observed variable where a single dependent variable presumed to be related to one or more independent variable. The objective is to predict the changes in the dependent variable in response to changes in the independent variable.

The empirically derived canonical correlation model was assumed to be the measurement model for the purpose of the present study. SEM was used to validate the canonical correlation model. More specifically, the SEM analysis was performed to validate the relationship between the composite canonical variates (the wellness-related dispositional attributes and the resiliency-related behavioural capacities construct variate variables, career adaptability and hardiness) that obtained a *Rc* loading > .30 from the canonical correlation analysis model.

Research hypothesis Ha4 was tested by conducting SEM: The canonical correlation measurement model has a good fit with the empirically manifested structural model.

5.6.3.4 Hierarchical moderated regression analyses

Hierarchical moderated regression analyses are used as a means of empirically detecting how a variable "moderates" or influences the nature of a relationship between variables (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010). Hierarchical moderated regression was performed to empirically determine whether the socio-demographic variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and resiliency-related behavioural capacities construct variables.

Research hypothesis Ha5 was tested by conducting hierarchical moderated regression analyses: The biographical variables (age, gender, race and marital status) do not significantly and positively moderate the relationship between the independent (wellness-related dispositional attributes construct variables) and dependent (the resiliency-related behavioural capacities construct variables) latent construct variates.

5.6.3.5 Tests of differences between mean scores

For the purposes of this study, the Mann-Whitney U test (for non-parametric data) was conducted to identify significant difference between age and gender that were shown to be the only two variables that acted as a significant moderator between the wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities construct variate variables, career adaptability and hardiness. The logic behind the Mann-Whitney U test is to rank the data for each condition and then see how different the two rank totals are (Tredoux & Durrheim, 2013). If there is a systematic difference between the two conditions then most of the high ranks belong to one condition and the low ranks belong to the other one. The Mann-Whitney test statistic U reflects the difference between two rank totals (Tredoux & Durrheim, 2013).

Research hypothesis Ha6 was tested by conducting the Mann-Whitney U test:

There are no significant mean differences between the sub-groups of the biographical variables that act as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct variables.

5.6.4 Statistical significance level

The general level of significance $p \leq .05$, was chosen to test the hypotheses, which provide for a 95% level of confidence in the results being accepted (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010). A researcher can make two errors namely Type I and type II errors. Type I error is the probability of incorrectly rejecting the null hypotheses. This is interpreted as a difference of correlation exists when it actually does not. Typical levels are .05 and .01. Type II is the probability of incorrectly failing to reject the null hypotheses, which involves a chance of finding a correlation or mean difference when it does not exist (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

Table 5.7 summarises the different levels of statistical significance.

Table 5.7: *Different Levels of Statistical Significance (Tredoux & Durrheim, 2013)*

Probability	Level	Significance
p	.10	Less significant
p	.01 to .05	Significant
p	.001 to 0.1	Very significant
p	.001	Extremely significant

5.6.4.1 Statistical significance of Pearson-product moment correlations

Where statistically significant relationships ($p \leq .05$) were found through correlation coefficients, r - values (equal to correlation magnitude) were interpreted according to the following guidelines (Cohen, 1992):

- $r \geq .10$ (small practical effect);
- $r \geq .30$ (medium practical effect); and
- $r \geq .50$ (large practical effect).

The significance level of $p \leq .05$ and $r \geq .30$ was chosen as the cut-off point for rejecting the null hypotheses.

5.6.4.2 Statistical significance of canonical correlation analysis

The statistical significance for canonical correlation that is generally accepted for interpretation is $p \leq .05$. A separate test of each canonical function was provided which can be used to evaluate the significance of discriminant functions, including Wilks' lambda, Hotelling's trace, Pillai's trace and Roy's greatest characteristic root (gcr) (Hair et al., 2010). The size of the canonical correlations was considered in terms of deciding which functions to interpret. The rule of thumb – R^2 loadings $\geq .30$ guidelines have been established on suitable sizes for canonical correlations, though most decisions are based on the contribution of the findings.

The redundancy index of a variate is derived by multiplying two components (shared variance of the variate multiplied by the squared canonical correlation) to find the amount shared variance explained by the opposite variate. To have a high redundancy index, one has to have a high correlation and a high degree of shared variance explained by its own variates (Hair et al., 2010).

5.6.4.3 Statistical significance of multiple regression correlations

The levels of statistical significance of multiple regressions used in this study were:

$F(p) \leq .001$;

$F(p) \leq .01$; and

$F(p) \leq .05$ as the cut-off for rejecting the null hypotheses.

Adjusted $R^2 \leq .12$ (small practical effect size); $R^2 \geq .13 \leq .25$ (moderate practical effect size); $R^2 \geq .26$ (large practical effect size) were considered for interpreting the magnitude of the practical significance of the results (Salkind, 2012).

In terms of the hierarchical moderated regression results, the following effect sizes (which indicate the magnitude of the practical significance of interaction effects) applied (Salkind, 2011):

$$f^2 = (R^2_2 - R^2_1) / (1 - R^2_2)$$

f^2 = practical effect size (.02 = small; .15 = moderate; .35 = large)

5.6.4.4 Goodness of fit statistics: SEM

The Goodness-of-Fit Index determines the degree to which the sample variance-covariance data fit the SEM and criteria most commonly used (also called measures of absolute fit) are chi-square (χ^2), the Goodness-of-Fit Index (GFI), the Adjusted Goodness-of-Fit Index (AGFI) and the Root Mean Square Error of Approximation (RMSEA) in conjunction with the SRMR (standardised root-mean-square residual). The primary goal of SEM is to find a statistically significant hypothesised theoretical model which also has practical and substantive meaning (Hooper, Coughlan & Mullen, 2008):

The Chi-Square value is the traditional measure for evaluating overall model fit and assesses the magnitude of discrepancy between the sample and fitted covariances matrices (Hooper et al., 2008). A good model fit would provide an insignificant result at a 0.05 threshold, thus the Chi-Square statistic is often referred to as either a 'badness of fit' or a 'lack of fit' measure. Chi-square is the only statistical test of significance for testing the theoretical model and value ranges from zero for a saturated model with all paths included to a maximum for the independence model with no paths included. A chi-square value of 0 indicates a perfect fit (Hooper et al., 2008).

The Goodness-of-Fit statistic (GFI) is as an alternative to the Chi-Square test and calculates the proportion of variance that is accounted for by the estimated population covariance (Hooper et al., 2008). Goodness of fit is the extent to which the hypothesised model reproduces the covariance structure among the variables in the data. By looking at the variances and covariances accounted for by the model it shows how closely the model comes to replicating the observed covariance matrix (Hooper et al., 2008). This statistic ranges from 0 to 1 with larger samples increasing its value. When there are a large number of degrees of freedom in comparison to sample size, the GFI has a downward bias (Hooper et al., 2008). In addition, it has also been found that the GFI increases as the number of parameters increases and also has an upward bias with large samples. Traditionally an omnibus cut-off point of 0.90 has been recommended for the GFI however, simulation studies have shown that when factor loadings and sample sizes are low a higher cut-off of 0.95 is more appropriate (Hooper et al., 2008).

Related to the GFI is the AGFI which adjusts the GFI based upon degrees of freedom, with more saturated models reducing fit. Thus, more parsimonious models are preferred while penalised for complicated models. (Hooper et al., 2008). In addition to this, AGFI tends to increase with sample size. As with the GFI, values for the AGFI also range between 0 and 1 and it is generally accepted that values of 0.90 or greater indicate well fitting models. Given the often detrimental effect of sample size on these two fit indices they are not relied upon as a stand alone index, however given their historical importance they are often reported in covariance structure analyses (Hooper et al., 2008).

The RMSEA is the second important fit statistic and tells us how well the model, with unknown but optimally chosen parameter estimates would fit the populations' covariance matrix. In recent years it has become regarded as 'one of the most informative fit indices' due to its sensitivity to the number of estimated parameters in the model. In other words, the RMSEA favours parsimony in that it will choose the model with the lesser number of parameters (Hair et al., 2010). Recommendations for RMSEA cut-off points have been reduced considerably in the last fifteen years. Up until the early nineties, an RMSEA in the range of 0.05 to 0.10 was considered an indication of fair fit and values above 0.10 indicated poor fit. It was then thought that an RMSEA of between 0.08 to 0.10 provides a mediocre fit and below 0.08 shows a good fit. It is generally reported in conjunction with the SRMR (standardised root-mean-square residual). In a well-fitting model the lower limit is close to 0 while the upper limit should be less than 0.08. The RMSEA is thus a standardised measure of error of approximation (Hooper et al., 2008). An RMSEA value of .05 or less indicates a close approximation and values of up to 0.08 suggest a reasonable fit of the model in the population (Hair et al., 2010). One of the greatest advantages of the RMSEA is its ability for a confidence interval to be calculated around its value. This is possible due to the known distribution values of the statistic and subsequently allows for the null hypothesis (poor fit) to be tested more precisely (Hair et al., 2010).

The Comparative Fit Index (CFI) provides a measure of goodness-of-fit of the hypothesised model compared to an independence model. The Comparative Fit Index is a revised form of the NFI which takes into account sample size that performs well even when sample size is small (Hooper et al., 2008). This statistic assumes that all latent variables are uncorrelated (null/independence model) and compares the sample covariance matrix with this null model. As with the NFI, values for this statistic range between 0.0 and 1.0 with values closer to 1.0 indicating good fit. A cut-off criterion of $CFI \geq 0.90$ was initially advanced. However, recent

studies have shown that a value greater than 0.90 is needed in order to ensure that misspecified models are not accepted. From this, a value of $CFI \geq 0.95$ is presently recognised as indicative of good fit, it is one of the most popularly reported fit indices due to being one of the measures least affected by sample size (Hair et al., 2010).

The NFI, also known as the Bentler Bonett normed fit index was developed as an alternative to CFI as it does not require making chi-square assumptions. This statistic assesses the model by comparing the χ^2 value of the model to the χ^2 of the null model (Hair et al., 2010). The null/independence model is the worst case scenario as it specifies that all measured variables are uncorrelated. Values for this statistic range between 0 and 1 (perfect fit) with a recommendation of values greater than 0.90 indicating a good fit. More recent suggestions state that the cut-off criteria should be $NFI \geq .95$. Values above .95 are regarded as good, between .90 and .95 as acceptable and values below .90 indicate a need to respecify the model (Hair et al., 2010).

The NNFI, also known as the Tucker-Lewis is an index that prefers simpler models. However in situations where small samples are used, the value of the NNFI can indicate poor fit despite other statistics pointing towards good fit. A final problem with the NNFI is that due to its non-normed nature, values can go above 1.0 and can thus be difficult to interpret. Recommendations as low as 0.80 as a cutoff have been preferred, however, a suggested $NNFI \geq 0.95$ has been suggested as the cut-off point for a good model fit (Hair et al., 2010).

The standardised RMR (SRMR) is an absolute measure of fit and is defined as the standardised difference between the observed correlation and the prediction correlation. It is a positively biased measure and the bias is greater for small N and low df studies. Because the SRMR is an absolute measure of fit, a value of zero indicates perfect fit. The SRMR has no penalty for model complexity. A value less than .08 is generally considered a good fit (Gravetter & Wallnau, 2011; Hair et al., 2010; Hogg & Tanis, 2010).

5.7 CHAPTER SUMMARY

This chapter discussed the first six steps of the empirical investigation, which included the determination and description of the sample, choice of psychometric battery, the administration and scoring of the psychometric battery, the formulation of research hypotheses, and finally the statistical procedures that will be utilised for the processing of the data and assessing whether the content is also appropriate.

Chapter 6 will address empirical research aims 1–6 as outlined in Table 5.6.

CHAPTER 6: RESEARCH RESULTS

This chapter discusses the results of the various statistical analyses which were performed in order to test the hypotheses formulated for the purposes of this research study. Steps 7 and 8 of the empirical investigations will be discussed. The results of the empirical research will be presented in tables as well as in figures. Descriptive statistics, correlations and inferential statistics were applied to realise the research objectives. The empirical findings will be integrated with the literature review. The chapter starts with a discussion of descriptive statistics in general and this is followed by a discussion of correlational and inferential (multivariate) techniques.

6.1 DESCRIPTIVE STATISTICS

Descriptive statistics involve the reporting of raw scores and then organising or summarising these raw scores in a form that is more meaningful. This section discusses the three steps which are relevant to descriptive statistics, namely, determining (1) the internal consistency reliability of the measuring instruments by means of the Cronbach's alpha coefficient; (2) the unidimensionality of the measuring instruments by means of Rasch analysis; and (3) the means and standard deviations as well as the kurtosis and skewness of both the categorical data and the frequency data.

6.1.1 Reporting and interpretation of scale reliabilities: Rasch analyses and Cronbach's alpha coefficients of the measures

This section reports on the internal consistency and item reliabilities of the following measurement instruments: Orientation to Life Questionnaire (OLQ), Assessing Emotions Scale (AES), Maslach Burnout Inventory (MBI), Career Adapt-Abilities Scale (CAAS) and the Personal Views Survey II (PVS-II).

A Rasch analysis was performed on all the items of each measurement scale respectively to evaluate the construct validity (unidimensionality) and internal consistency reliability of each dimension of the various scales (Brand-Labuschagne, 2010). The reliability of the rating scale is determined by both the item characteristics (item separation and item reliability indices) as well as the person characteristics (person separation and person reliability indices) (Brand-Labuschagne, Mostert, Rothmann, & Rothmann, 2012).

The person separation reliability is comparable to the traditional internal consistency reliability measure (Cronbach's alpha coefficient) which estimates the true person variance (Brand-Labuschagne et al., 2012). Item reliability indicates how well the difficulty levels of the item are distributed along the measured latent variable and evaluates the chances of replicating the item placement in other samples (Brand-Labuschagne et al., 2012).

Fit statistics are utilised to evaluate the validity of each scale dimension through identifying respondents (persons) and items that function differently with regard to what was expected (Brand-Labuschagne et al., 2012). Item fit refers to whether the items provide logical and useful information while person fit refers to whether the responses of the respondents to items were consistent. As regards item fit, mean square statistics are used to evaluate the unidimensionality of the scale. The infit and outfit statistics are used to measure the fit of the data. Infit statistics are less sensitive than outfit statistics when an extreme response is evident (Brand-Labuschagne et al., 2012).

6.1.1.1 Orientation to Life Questionnaire (Sense of coherence)

The Orientation to Life Questionnaire (OLQ) was used to measure the participants' sense of coherence. Table 6.1 summarises the Rasch summary statistics for the OLQ.

Table 6.1: *Descriptive Statistics: Rasch Summary Statistics for the OLQ*

Scale Dimension	RASCH internal consistency reliability analyses					
	Average measure (SD)	Infit (SD)	Outfit (SD)	Separation	Reliability	Alpha
Total Sense of Coherence						
Person	.17(.25)	1.04(.54)	1.02(.52)	1.81	.77	.78
Item	.00(.20)	1.02(.11)	1.02(.12)	6.76	.98	
Comprehensibility						
Person	.03(.34)	1.03(.69)	1.03(.68)	1.25	.61	.64
Item	.00(.16)	1.01(.25)	1.03(.28)	5.12	.96	
Manageability						
Person	.23(.33)	1.04(.61)	1.03(.61)	1.08	.54	.57
Item	.00(.23)	1.02(.13)	1.03(.16)	7.50	.98	
Meaningfulness						
Person	.36(.45)	1.08(.74)	1.04(.69)	1.17	.58	.71
Item	.00(.16)	1.01(.16)	1.04(.20)	4.85	.96	

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

Table 6.1 shows acceptable item reliability ($\geq .96$) for the four dimensions of the OLQ, indicating that the items of the scale differentiated well among the measured variable. The

item separation for all the dimensions of the OLQ were sufficient compared to the guideline of at least 2.00 and/or higher (Gravetter & Wallnau, 2011; Hogg & Tanis, 2010).

The person separation indices for the dimensions of the OLQ were lower than the proposed guideline of 2.00 and/or higher. The low person separation indices indicate either that the sub-dimensions did not separate or discriminate well among respondents with different abilities, or that the respondents misunderstood the items, or that they were reluctant to answer the questions with the required intensity.

The Cronbach's alpha coefficients for the OLQ dimensions ranged between .57 and .78. The alpha coefficients for both the manageability dimension ($\alpha = .57$) and the comprehensibility dimension ($\alpha = .64$) were lower than the guideline of $\geq .70$ (Hair et al., 2010). The meaningfulness dimension showed the highest person average measure (.36; SD = .45) while the comprehensibility dimension showed the lowest person average measure (.03; SD = .34). The mean item fit and person fit were acceptable, showing that the responses did not either underfit (≥ 1.30) or overfit ($\leq .70$). Overall, the Rasch item and the person fit results suggest that the items of the OLQ provided logical and useful information for all the participants and that the participants had responded to the items in a consistent manner. In addition, the infit and outfit values show a good fit of the data (close to 1.00), indicating the unidimensionality of the OLQ.

6.1.1.2 *The Assessing Emotions Scale (Emotional intelligence)*

The Assessing Emotions Scale (AES) was used to measure the participants' emotional intelligence. Table 6.2 summarises the Rasch summary statistics for the AES.

Table 6.2: *Descriptive Statistics: Rasch Summary Statistics for the AES*

Scale Dimension	RASCH internal consistency reliability analyses					
	Average measure (SD)	Infit (SD)	Outfit (SD)	Separation	Reliability	Alpha
Emotional Intelligence Total						
Person	.88(.53)	1.06(.49)	1.03(.51)	2.40	.85	.87
Item	.00(.42)	1.03(.27)	1.03(.32)	7.67	.98	
Perception of Emotion						
Person	.65(4.8)	1.03(.63)	1.00(.61)	1.34	.64	.55
Item	.00(.39)	1.00(.17)	1.00(.18)	7.60	.98	
Managing Own Emotions						
Person	1.20(.77)	1.00(.56)	.98(.52)	1.13	.56	.73
Item	.00(.28)	1.01(.29)	.98(.26)	4.30	.95	
Managing Other Emotions						
Person	.93(.77)	1.00(.60)	1.01(.70)	1.38	.66	.72
Item	.00(.47)	1.03(.23)	1.01(.19)	8.17	.99	
Utilising Emotions						
Person	1.27(.85)	.98(.67)	.99(.75)	1.07	.53	.61
Item	.00(.52)	1.07(.22)	.99(.20)	7.95	.98	

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

Table 6.2 shows acceptable item reliability ($\geq .95$) for the five dimensions of the AES, indicating that the items of the scale differentiated well among the measured variable. The item separation for all the dimensions of the AES (≥ 4.30) were sufficient as compared to the guideline of at least 2.00 and/or higher (Gravetter & Wallnau, 2011; Hogg & Tanis, 2010).

With the exception of the total AES scale dimension (2.40), the person separation indices for the dimensions of the AES were lower than the proposed guideline of 2.00 and/or higher. As in the case of the OLQ, the low person separation indices indicate either that the sub-dimensions did not separate or discriminate well among respondents with different abilities, or that the respondents misunderstood the items, or that they were reluctant to answer the questions with the required intensity.

Cronbach's alpha coefficients for the AES dimensions ranged between .55 and .87. The alpha coefficients for the perception of emotion dimension ($\alpha = .55$) and the utilising emotion dimension ($\alpha = .61$) were lower than the guideline of $\geq .70$ (Hair et al., 2010). The utilising emotion dimension showed the highest person average measure (1.27; SD = .85) and the perception of emotion dimension showed the lowest person average measure (.65; SD = 4.8). The mean item fit and person fit were acceptable, showing that the responses did not either underfit (≥ 1.30) or overfit ($\leq .70$). Overall, the Rasch item and the person fit results suggest that the items of the AES provided logical and useful information for all the participants and that the participants responded to the items in a consistent manner. The infit and outfit values show a good fit of the data (close to 1.00), indicating the unidimensionality of the AES.

6.1.1.3 *Maslach Burnout Inventory (Burnout)*

The Maslach Burnout Inventory (MBI) was used to measure the participants' levels of burnout. Table 6.3 summarises the Rasch summary statistics for the MBI.

Table 6.3: Descriptive Statistics: Rasch Summary Statistics for the MBI

Scale Dimension	RASCH internal consistency reliability analyses					
	Average Measure (SD)	Infit (SD)	Outfit (SD)	Separation	Reliability	Alpha
Burnout Scale Total						
Person	.18(.40)	.95(.52)	1.10(.84)	2.15	.82	.81
Item	.00(.43)	1.00(.26)	1.10(.36)	13.31	.99	
Cynicism						
Person	.87(.77)	1.00(.70)	.99(.70)	.95	.48	.47
Item	.00(.42)	1.01(.08)	.99(.10)	7.39	.98	
Exhaustion						
Person	- .10(1.01)	.98(.85)	.98(.87)	2.15	.82	.87
Item	.00(.16)	1.02(.18)	.98(.17)	3.86	.94	
Professional Efficacy						
Person	.78(.71)	.98(.74)	.97(.73)	1.14	.56	.73
Item	.00(.14)	1.01(.10)	.97(.10)	3.22	.91	

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

Table 6.3 shows acceptable item reliability ($\geq .91$) for the four dimensions of the MBI, indicating that the items of the scale differentiated well among the measured variable. The item separation for all the dimensions of the MBI (≥ 3.22) were sufficient as compared to the guideline of at least 2.00 and/or higher (Gravetter & Wallnau, 2011; Hogg & Tanis, 2010).

With the exception of the Total MBI scale dimension (2.15) and the exhaustion dimension (2.15), the person separation indices for the dimensions of the MBI were lower than the

proposed guideline of 2.00 and/or higher. The low person separation indices indicate either that the sub-dimensions did not separate or discriminate well among respondents with different abilities, or that the respondents misunderstood the items, or that they were reluctant to answer the questions with the required intensity.

The Cronbach's alpha coefficients for the MBI dimensions ranged between .47 and .87. The alpha coefficient for the cynicism dimension ($\alpha = .47$) was lower than the guideline of $\geq .70$ (Hair et al., 2010). The cynicism dimension showed the highest person average measure (.87; SD = .77) and the exhaustion dimension showed the lowest person average measure (-.10; SD = 1.01). The mean item fit and person fit were acceptable, showing that the responses did not either underfit (≥ 1.30) or overfit ($\leq .70$). Overall, the Rasch item and the person fit results suggest that the items of the MBI provided logical and useful information for all the participants and that the participants responded to the items in a consistent manner. The infit and outfit values show a good fit of the data (close to 1.00), indicating the unidimensionality of the MBI.

6.1.1.4 Career Adapt-Abilities Inventory (CAAS)

The Career Adapt-Abilities Scale (CAAS) was used to measure the participants' career adaptability. Table 6.4 summarises the Rasch summary statistics for the CAAS.

Table 6.4: Descriptive Statistics: Rasch Summary Statistics for the CAAS

Scale dimension	RASCH internal consistency reliability analyses					
	Average measure (SD)	Infit (SD)	Outfit (SD)	Separation	Reliability	Alpha
Total Career Adaptability						
Person	1.31(.88)	1.06(.53)	1.04(.51)	4.09	.94	.95
Item	.00(.41)	1.01(.24)	1.04(.31)	6.57	.98	
Concern						
Person	1.70(1.03)	.99(.58)	1.00(.65)	1.86	.78	.84
Item	.00(.49)	1.02(.17)	1.00(.21)	6.95	.98	
Control						
Person	1.63(.94)	.99(.54)	.99(.55)	1.63	.73	.81
Item	.00(.25)	1.01(.17)	.99(.16)	3.41	.92	
Confidence						
Person	1.64(1.10)	1.03(.76)	1.04(.81)	2.07	.81	.87
Item	.00(.26)	1.01(.31)	1.04(.41)	3.37	.92	
Co-operation						
Person	.86(.88)	1.06(.64)	1.02(.60)	2.07	.81	.83
Item	.00(.42)	1.00(.26)	1.02(.27)	7.28	.98	
Curiosity						
Person	1.71(1.26)	.98(.76)	.98(.18)	1.75	.75	.80
Item	.00(.42)	.98(.78)	1.02(.27)	5.65	.97	

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

Table 6.4 shows acceptable item reliability ($\geq .92$) for the six dimensions of the CAAS, indicating that the items of the scale differentiated well among the measured variable. The item separation for all the dimensions of the CAAS (≥ 3.37) were sufficient compared to the guideline of at least 2.00 and/or higher (Gravetter & Wallnau, 2011; Hogg & Tanis, 2010).

With the exception of the Total CAAS scale dimension (4.09), the confidence dimension (2.07) and the cooperation dimension (2.07), the person separation indices for the dimensions of the CAAS were somewhat lower than the proposed guideline of 2.00 and/or higher. The low person separation indices indicate either that the sub-dimensions did not separate or discriminate well among respondents with different abilities, or that the respondents misunderstood the items, or that they were reluctant to answer the questions with the required intensity.

The Cronbach's alpha coefficients for the CAAS dimensions ranged between .80 and .95 (high). The curiosity dimension showed the highest person average measure (1.71; SD = 1.26) and the cooperation dimension showed the lowest person average measure (.86; SD = .88). The mean item fit and the person fit were acceptable, showing that the responses did not either underfit (≥ 1.30) or overfit ($\leq .70$). Overall, the Rasch item and the person fit results suggest that the items of the CAAS provided logical and useful information for all the participants and that the participants responded to the items in a consistent manner. The infit and outfit values show a good fit of the data (close to 1.00), indicating the unidimensionality of the CAAS.

6.1.1.5 *Personal Views Survey (PVS-II)*

The Personal Views Survey II (PVS II) was used to measure the participants' hardiness. Table 6.5 summarises the Rasch summary statistics for the PVS-II.

Table 6.5: *Descriptive Statistics: Rasch Summary Statistics for the PVS-II*

Scale Dimension	RASCH internal consistency reliability analyses					
	Average Measure (SD)	Infit (SD)	Outfit (SD)	Separation	Reliability	Alpha
Total Hardiness						
Person	.34(.52)	1.01(.31)	1.02(.32)	3.04	.90	.90
Item	.00(.63)	1.01(.16)	1.02(.18)	10.88	.99	
Control-Powerlessness						
Person	.64(.64)	1.01(.35)	1.02(.38)	1.87	.78	.79
Item	.00(.60)	1.00(.13)	1.02(.15)	9.68	.99	
Commitment-Alienation						
Person	.66(.75)	1.02(.40)	1.02(.45)	1.99	.80	.83
Item	.00(.45)	1.01(.16)	1.02(.21)	7.48	.98	
Challenge-Threat						
Person	-.19(.49)	1.01(.42)	1.00(.42)	1.45	.68	.65
Item	.00(.57)	1.02(.16)	1.00(.15)	10.04	.99	

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

Table 6.5 shows acceptable item reliability ($\geq .99$) for the four dimensions of the PVS-II, indicating that the items of the scale differentiated well among the measured variable. The item separation for all the dimensions of the PVS-II (≥ 7.48) were sufficient compared to the guideline of at least 2.00 and/or higher (Gravetter & Wallnau, 2011; Hogg & Tanis, 2010).

With the exception of the Total PVS-II scale dimension (3.04), the person separation indices for the dimensions of the PVS-II were somewhat lower than the proposed guideline of 2.00 and/or higher. The low person separation indices indicate either that the sub-dimensions did not separate or discriminate well among respondents with different abilities, or that the

respondents misunderstood the items, or that they were reluctant to answer the questions with the required intensity.

The Cronbach's alpha coefficients for the PVS-II dimensions ranged between .65 and .90. The alpha coefficient for the challenge-threat dimension ($\alpha = .65$) was lower than the guideline of $\geq .70$ (Hair et al., 2010). The commitment-alienation dimension showed the highest person average measure (.66; SD = .75) and the challenge-threat dimension showed the lowest person average measure (-.19; SD = .49). The mean item fit and the person fit were acceptable, showing that the responses did not either underfit (≥ 1.30) or overfit ($\leq .70$). Overall, the Rasch item and the person fit results suggest that the items of the PVS-II provided logical and useful information for all the participants and that the participants responded to the items in a consistent manner. The infit and outfit values show a good fit of the data (close to 1.00), indicating the unidimensionality of the PVS-II.

6.1.2 Reporting of means and standard deviations

The results for the means and standard deviations of the OLQ, AES, MBI and CAAS, PVS-II are summarised in Table 6.6 below.

Table 6.6: *Descriptive Statistics: Mean Scores, Standard Deviations, Skewness and Kurtosis for the Five Scales*

Variables	Mean	Std. Deviation	Skewness	Kurtosis
OLQ				
Comprehensibility	4.13	.89	-.171	.61
Manageability	4.62	.87	-.001	-.20
Meaningfulness	4.91	1.10	.082	-.89
AES				
Perception of Emotions	3.73	.53	-.082	-.4
Managing Own Emotions	4.30	.56	-1.44	3.43
Managing Others' Emotions	3.98	.65	-1.10	1.67
Utilising Emotions	4.13	.59	-1.04	1.72
MBI				
Cynicism	2.64	1.42	.346	-.50
Exhaustion	2.93	1.74	.088	-1.16
Professional Efficacy	4.86	1.04	-.917	.31
CAAS				
Concern	4.19	.57	-.933	.93
Control	4.26	.52	-.803	.61
Curiosity	4.00	.65	-.591	-.23
Confidence	4.16	.60	-.55	-.31
Co-operation	3.77	.68	-.321	-.71
PVS-II				
Control-Powerlessness	2.98	.47	-.64	-.23
Commitment-Alienation	3.00	.55	-.03	-.25
Challenge-Threat	2.36	.37	-.59	-.09

Notes: N = 409

6.1.2.1 *The Orientation to Life Questionnaire (sense of coherence)*

Table 6.6 shows that the mean scores ranged from 4.13 to 4.91. The sample of participants obtained the highest mean score on meaningfulness ($M = 4.91$; $SD = 1.10$), and the lowest mean score on comprehensibility ($M = 4.13$; $SD = .89$). The skewness values for the OLQ ranged between -0.001 and $.082$, thereby falling within the -1 and $+1$ normality range recommended for these coefficients (Gravetter & Wallnau, 2011). The kurtosis values ranged between $-.20$ and $.61$, thereby falling within the -1 and below the $+1$ normality range recommended for these coefficients (Hogg & Tanis, 2010).

6.1.2.2 *The Assessing Emotional Scale (Emotional intelligence)*

Table 6.6 shows that the mean scores ranged from 3.73 to 4.30. The sample of participants obtained the highest mean score on managing own emotions ($M = 4.30$; $SD = .56$), and the lowest mean score on perception of emotions ($M = 3.73$; $SD = .53$). The skewness values for the AES ranged between $-.082$ and -1.44 , thereby falling outside the -1 and $+1$ normality range recommended for these coefficients (Gravetter & Wallnau, 2011). The kurtosis values ranged between $-.372$ and 3.43 , thereby falling outside the -1 and above 1 , indicating non-normal distribution range recommended for these coefficients (Hogg & Tanis, 2010).

6.1.2.3 *The Maslach Burnout Inventory (Burnout)*

Table 6.6 shows that the mean scores ranged from 2.64 to 4.86. The sample of participants obtained the highest mean score on professional efficacy ($M = 4.86$; $SD = 1.04$) and the lowest mean score on cynicism ($M = 2.64$; $SD = 1.42$). The skewness values for the MBI ranged between $.088$ and $.346$, thereby falling within the -1 and $+1$ normality range recommended for these coefficients (Gravett & Wallnau, 2011). The kurtosis values ranged between $.31$ and -1.16 , thereby falling outside the -1 and close the $+1$ normality range recommended for these coefficients (Hogg & Tanis, 2010).

6.1.2.4 *The Career Adapt-Abilities Scale (Career adaptability)*

Table 6.6 shows that the mean scores ranged from 3.77 to 4.26. The sample of participants obtained the highest mean score on control ($M = 4.26$; $SD = .52$) and the lowest mean score on co-operation ($M = 3.77$; $SD = .68$). The skewness values for the CAAS ranged between $-.55$ and $-.93$, thereby falling within the -1 and $+1$ normality range recommended for these

coefficients (Gravett & Wallnau, 2011). The kurtosis values ranged between .93 and -.71, thereby falling within the -1 and below the +1 normality range recommended for these coefficients (Hogg & Tanis, 2010).

6.1.2.5 *The Personal Views Survey=II (Hardiness)*

Table 6.6 shows that the mean scores ranged from 2.36 to 3.00. The sample of participants obtained the highest mean score on commitment ($M = 3.00$; $SD = .55$) and the lowest mean score on challenge ($M = 2.36$; $SD = .37$). The skewness values for the PVS-II ranged between -.03 and -.64, thereby falling within the -1 and +1 normality range recommended for these coefficients (Gravett & Wallnau, 2011). The kurtosis values ranged between -.09 and -.25, thereby falling within the -1 and below the +1 normality range recommended for these coefficients (Hogg & Tanis, 2010).

6.2 CORRELATIONAL STATISTICS

In order to investigate the nature of the interrelationship between the variables in the study, the descriptive statistics had to be transformed into explanatory statistics to test the research hypotheses H01 and Ha1 (Gravetter & Wallnau, 2011; Tredoux & Durrheim, 2013). The relationship between the variables was calculated by means of Pearson product-moment correlations. These correlations enable the researcher to identify the strength and direction of the relationship between each of the variables of each instrument.

6.2.1 Reporting of Pearson product-moment correlation coefficients (OLQ, AES, MBI, CAAS and PVS-II)

6.2.1.1 *Relationship between independent variables (wellness-related dispositional attributes)*

Table 6.7 summarises the bivariate correlations between the wellness-related dispositional attributes.

Table 6.7: *Bivariate Correlations Between the Wellness-related Dispositional Attributes*

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Total Emotional Intelligence (AES)	1												
2	Perception of Emotion (AES)	.79***	1											
3	Managing Own Emotions (AES)	.83***	.46**	1										
4	Managing Others' Emotions (AES)	.53***	.55***	.65***	1									
5	Utilising Emotions (AES)	.74***	.42**	.60***	.53***	1								
6	Total Burnout (MBI)	-.09	-.079	-.16*	-.38**	-.076	1							
7	Exhaustion (MBI)	-.21*	-.12*	-.27*	-.15*	-.17*	.89***	1						
8	Cynicism (MBI)	.27*	-.12*	-.22*	-.10*	-.11*	.88***	.68***	1					
9	Professional Efficacy (MBI)	-.16*	.12*	.26*	.28*	.20*	.38**	.048	.68***	1				
10	Total Sense of Coherence (OLQ)	.32**	.18*	.33**	.24*	.27*	-.22*	-.35**	-.34**	-.36**	1			
11	Comprehensibility (OLQ)	.21*	.12*	.19*	.19*	.15*	-.022	-.12*	-.09	.26*	.68***	1		
12	Manageability (OLQ)	.24*	.13*	.27*	.17*	.24*	-.23*	-.31**	-.32**	.26*	.85***	.32**	1	
13	Meaningfulness (OLQ)	.28*	.18*	.30**	.19*	.23*	-.28*	-.38**	-.39**	.30**	.78***	.18*	.68***	1

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

Table 6.7 shows that variables correlated significantly ($r \geq .10 \leq .89$; small to large practical effect; $p \leq .05$) with negative correlations ($r \leq -.11 \leq r \leq -.21$ small to large) for the MBI variables.

- The results indicate that total emotional intelligence correlated significantly with perception of emotion ($r = .79$; large effect; $p \leq .05$), managing own emotions ($r = .83$; large effect; $p \leq .05$), managing others' emotions ($r = .53$; large effect; $p \leq .05$) and utilising emotions ($r = .74$; large effect; $p \leq .05$).

- A significant positive correlation was evident between perception of emotions and managing own emotions ($r = .46$; medium effect; $p \leq .05$), managing others' emotions ($r = .55$; large effect; $p \leq .05$) and utilising emotions ($r = .42$; medium effect; $p \leq .05$).
- A significant positive correlation was evident between managing own emotion and managing others' emotions ($r = .65$; large effect, $p \leq .05$), and utilising emotions ($r = .60$; large effect; $p \leq .05$), while managing others' emotions and utilising emotions correlated significantly ($r = .53$; large effect; $p \leq .05$).
- A significant negative correlation was indicated between total emotional intelligence and the burnout variables of exhaustion ($r = -.21$; small effect; $p \leq .05$), cynicism ($r = -.27$; small effect; $p \leq .05$) and professional efficacy ($r = -.16$; small effect; $p \leq .05$). There did not seem to be any correlation between total emotional intelligence and total burnout.
- A significant positive correlation was evident between perception of emotions and professional efficacy ($r = .12$; small effect; $p \leq .05$) while perception of emotions correlated negatively with both exhaustion and cynicism ($r = -.12$; small effect; $p \leq .05$).
- The results indicated that the total burnout correlated significantly with exhaustion ($r = .89$, large effect, $p \leq .05$), cynicism ($r = .88$; large effect; $p \leq .05$), and professional efficacy ($r = .38$; medium effect; $p \leq .05$).
- A significant positive correlation was evident between exhaustion and cynicism ($r = .68$; large effect, $p \leq .05$) and also between cynicism and professional efficacy ($r = .68$; large effect; $p \leq .05$). No significant correlation was found between exhaustion and professional efficacy.
- A significant negative correlation was evident between total burnout and managing own emotions ($r = -.16$; small effect; $p \leq .05$), and managing others' emotions ($r = -.38$; medium effect; $p \leq .05$). There seemed to be no correlations between total burnout and the perception of emotion and utilising emotions variables.
- The results indicated negative correlations between the exhaustion burnout variable and perception of emotions ($r = -.12$; small effect; $p \leq .05$), managing own emotions ($r = -.27$; small effect; $p \leq .05$), managing others' emotions ($r = -.15$; small effect; $p \leq .05$), and utilising emotions ($r = -.17$; small effect; $p \leq .05$).
- A significant positive correlation was evident between professional efficacy and perception of emotions ($r = .12$; small effect; $p \leq .05$), managing own emotions ($r = .26$; small effect; $p \leq .05$), managing others' emotions ($r = .28$; small effect; $p \leq .05$), and utilising emotions ($r = .20$; small effect; $p \leq .05$). A positive correlation was evident

between professional efficacy and total emotional intelligence ($r = .68$; small effect; $p \leq .05$).

- The results indicated that total sense of coherence correlated significantly with comprehension ($r = .68$; large effect; $p \leq .05$), manageability ($r = .85$ large effect, $p \leq .05$), and meaningfulness ($r = .78$; large effect; $p \leq .05$).
- A significant positive correlation was evident between total sense of coherence and total emotional intelligence ($r = .32$; medium effect; $p \leq .05$), perception of emotions ($r = .18$; small effect; $p \leq .05$), managing own emotions ($r = .33$; medium effect, $p \leq .05$), managing others' emotions ($r = .24$; small effect; $p \leq .05$) and utilising emotions ($r = .27$; small effect; $p \leq .05$). It was found that sense of coherence negatively correlated with total burnout ($r = -.22$; small effect; $p \leq .05$) and exhaustion ($r = -.35$; medium effect; $p \leq .05$).
- A significant positive correlation was evident between comprehensibility and total emotional intelligence ($r = .21$; small effect; $p \leq .05$), perception of emotions ($r = .12$; small effect; $p \leq .05$), managing own emotions ($r = .19$; small effect; $p \leq .05$), managing others' emotions ($r = .19$; small effect; $p \leq .05$) and utilising emotions ($r = .15$; small effect; $p \leq .05$).
- A significant negative correlation was evident between comprehensibility and exhaustion ($r = -.12$; small effect; $p \leq .05$). There did not seem to be any correlation between comprehensibility and the total burnout and cynicism variables.
- The results indicated that manageability correlated significantly with total sense of coherence ($r = .85$; large effect; $p \leq .05$) and comprehensibility ($r = .32$; medium effect; $p \leq .05$). A positive correlation was also evident between manageability and total emotional intelligence ($r = .24$; small effect; $p \leq .05$), perception of emotions ($r = .13$; small effect; $p \leq .05$), managing own emotions ($r = .27$; small effect; $p \leq .05$), managing others' emotions ($r = .17$; small effect; $p \leq .05$), and utilising emotions ($r = .24$; small effect; $p \leq .05$).
- A significant positive correlation was evident between manageability and professional efficacy ($r = .26$; small effect; $p \leq .05$). On the other hand, manageability correlated negatively with total burnout ($r = -.23$; small effect; $p \leq .05$), exhaustion ($r = -.31$; medium effect; $p \leq .01$) and cynicism ($r = -.32$; medium effect; $p \leq .01$).
- The results indicated that meaningfulness correlated significantly with total sense of coherence ($r = .78$; large effect; $p \leq .05$), and manageability ($r = .68$; large effect; $p \leq .05$). Meaningfulness also correlated significantly with total sense of coherence ($r = .28$; small effect; $p \leq .05$), perception of emotions ($r = .18$; small effect; $p \leq .05$),

managing own emotions ($r = .30$; medium effect; $p \leq .05$) and managing others' emotions ($r = .23$; small effect; $p \leq .05$).

- The meaningfulness variable correlated negatively with total burnout ($r = -.28$; small effect; $p \leq .05$), exhaustion ($r = -.38$; medium effect; $p \leq .05$) and cynicism ($r = -.39$; medium effect; $p \leq .05$), and correlated positively with professional efficacy ($r = .30$; medium effect; $p \leq .05$).

6.2.1.2 Relationship between the resiliency-related behavioural capacities (dependent variables)

Table 6.8 summarises the bivariate correlations between the resiliency-related behavioural capacities

Table 6.8: *Bivariate Correlations between the Resiliency-Related Behavioural Capacities*

	Variables	1	2	3	4	5	6	7	8
1	Career concern (CAAS)	1							
2	Career control (CAAS)	.68***	1						
3	Career curiosity (CAAS)	.61***	.68***	1					
4	Career cooperation (CAAS)	.58***	.58***	.63***	1				
5	Career confidence (CAAS)	.60***	.68***	.69***	.62***	1			
6	Commitment-alienation (PVS-II)	.14*	.18*	.09	.06	.20*	1		
7	Control-powerlessness (PVS-II)	.21*	.23*	.16*	.10*	.26*	.84***	1	
8	Challenge-threat (PVS-II)	-.06	-.09	.13*	-.12*	-.15*	.59***	.56***	1

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

Table 6.8 shows significant correlations between the career adaptability and hardiness variables ($r \geq .13 \geq r \leq .69$; small to large practical effect; $p \leq .05$) and negative correlations with ($r \geq -.12 \geq r \leq -.15$; small to large practical effect; $p \leq .05$) for the PVS challenge-threat variable. The results indicated that career adaptability concern correlated significantly with career control ($r = .68$; large effect; $p \leq .05$), career curiosity ($r = .61$; large effect; $p \leq .05$), cooperation ($r = .58$; large effect; $p \leq .05$) and career confidence ($r = .60$; large effect; $p \leq .05$).

- A significant positive correlation was evident between career control and career curiosity ($r = .68$; large effect; $p \leq .05$), and also between career cooperation ($r = .58$; large effect; $p \leq .05$), and career confidence ($r = .68$; large effect; $p \leq .05$).
- A significant positive correlation was evident between career curiosity and career cooperation ($r = .63$; large effect; $p \leq .05$), and career confidence ($r = .69$; large effect; $p \leq .05$). The career cooperation correlated significantly with career confidence ($r = .62$; large effect; $p \leq .05$).
- The results indicated that career concern correlated significantly with commitment alienation ($r = .14$; small effect; $p \leq .05$) and control powerlessness ($r = .21$; small practical effect; $p \leq .05$).
- A significant positive correlation was evident between career control and commitment alienation ($r = .18$; small effect; $p \leq .05$) and control powerlessness ($r = .23$; small effect; $p \leq .05$).
- A significant positive correlation was evident between career curiosity and control powerlessness ($r = .16$; small effect; $p \leq .05$) and challenge threat ($r = .13$; small effect; $p \leq .05$).
- A significant positive correlation was evident between career cooperation and control powerlessness ($r = .10$; small effect; $p \leq .05$) while there was a negative correlation between challenge threat ($r = -.12$; small effect; $p \leq .05$).
- A significant positive correlation was evident between career confidence and commitment alienation ($r = .20$; small effect; $p \leq .05$) and control powerlessness ($r = .26$; small effect; $p \leq .05$) while there was a negative correlation with challenge threat ($r = -.15$; small effect; $p \leq .05$).
- The results indicated that the hardiness variables correlated significantly with commitment-alienation ($r = .14$, small effect; $p \leq .05$), and control-powerlessness ($r = .21$, small effect; $p \leq .05$).
- A significant positive correlation was evident between commitment-alienation and control powerlessness ($r = .84$, large effect; $p \leq .05$), and challenge threat ($r = .59$, large effect; $p \leq .05$).
- A significant positive correlation was evident between control-powerlessness and challenge threat ($r = .56$, large effect; $p \leq .05$).

6.2.1.3 *Relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities*

Table 6.9 summarises the bivariate correlations between the wellness-related dispositional attributes and the resiliency-related behavioural capacities

Table 6.9: *Bivariate Correlations Between the Wellness-Related Dispositional Attributes and the Resiliency-Related Behavioural Capacities*

Variables	Total Career Adaptability (CAAS)	Career Concern (CAAS)	Career Control (CAAS)	Career Curiosity (CAAS)	Career Cooperation (CAAS)	Career Confidence (CAAS)	Total Hardiness (PVS-II)	Commitment-Alienation (PVS-II)	Control-Powerlessness (PVS-II)	Challenge-Threat (PVS-II)
Total Emotional Intelligence (AES)	.55***	.53***	.43**	.43**	.47**	.49**	.20*	.23*	.29*	-.03
Perception of Emotion (AES)	.39**	.35**	.27*	.34**	.35**	.35**	.11*	.10*	.18*	.00
Managing Own Emotions (AES)	.47**	.49**	.41**	.39**	.32**	.44**	-.27*	.34**	.38**	.04
Managing Others' Emotions (AES)	.45**	.86***	.44**	.32**	.32**	.45**	.12*	.14*	.17*	-.02
Utilising Emotions (AES)	.40**	.37**	.34**	.32**	.34**	.35**	.08	.11*	.17*	-.12*
Total Burnout (MBI)	-.05	-.03	-.13*	-.00	-.01	-.08	-.39**	-.42**	-.34**	-.25*

Variables	Total Career Adaptability (CAAS)	Career Concern (CAAS)	Career Control (CAAS)	Career Curiosity (CAAS)	Career Cooperation (CAAS)	Career Confidence (CAAS)	Total Hardiness (PVS-II)	Commitment-Alienation (PVS-II)	Control-Powerlessness (PVS-II)	Challenge-Threat (PVS-II)
Exhaustion (MBI)	-.14*	-.20*	-.09	-.06	-.20*	-.14*	-.46**	-.48**	-.41**	-.29*
Cynicism (MBI)	-.09	-.08	-.15*	-.02	-.02	-.13*	-.53***	-.53***	-.54***	-.29*
Professional Efficacy (MBI)	.19*	.27*	.16*	.14*	.09	.27*	.27*	.25*	.35**	.10*
Total Sense of Coherence (OLQ)	.27*	.29*	.27*	.15*	.17*	.24*	.41**	.39**	.42**	.26*
Comprehensibility (OLQ)	.30	.28*	.29*	.21*	.21*	.23*	.07	.08	.08	.01
Manageability (OLQ)	.14*	.15*	.16*	.05	.06	.14*	.42**	.40**	.41**	.29*
Meaningfulness (OLQ)	.17*	.20*	.17*	.06	.11*	.18*	.49**	.45**	.50***	.33**

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

Table 6.9 shows that total emotional intelligence and total sense of coherence correlated significantly ($r \geq .55 \geq r \geq .17$; small to large practical effect; $p \leq .05$), and negative correlation was indicated with total burnout.

The correlation results provided an initial indication that further analyses in the form of a canonical correlation analysis and a regression analysis in order to test the research hypotheses were warranted.

- The results indicated that there was a significant relationship between the four emotional intelligence variables, namely, perception of emotion ($r = .39$; medium effect; $p \leq .05$), managing own emotions ($r = .47$; medium effect; $p \leq .05$), managing others' emotions ($r = .45$; medium effect; $p \leq .05$) and utilising emotions ($r = .40$; medium effect; $p \leq .05$), and total career adaptability.
- A significant positive correlation was evident between the four emotional intelligence variables, namely, perception of emotion ($r = .35$; medium effect; $p \leq .05$), managing own emotions ($r = .49$; medium effect; $p \leq .05$), managing others' emotions ($r = .86$; large effect; $p \leq .05$) and utilising emotions ($r = .37$; medium effect; $p \leq .05$), and concern.
- A significant positive relationship was evident between the four emotional intelligence variables, namely, perception of emotion ($r = .27$; medium effect; $p \leq .05$), managing own emotions ($r = .41$; medium effect; $p \leq .05$), managing others' emotions ($r = .44$; medium effect; $p \leq .05$) and utilising emotions ($r = .34$; medium effect; $p \leq .05$), and career control.
- A significant positive relationship was evident between the four emotional intelligence variables, namely, perception of emotion ($r = .34$; medium effect; $p \leq .05$), managing own emotions ($r = .39$; medium effect; $p \leq .05$), managing others' emotions ($r = .32$; medium effect; $p \leq .05$) and utilising emotions ($r = .32$; medium effect; $p \leq .05$), and career curiosity.
- A significant positive relationship was evident between the four emotional intelligence variables, namely, perception of emotion ($r = .35$; medium effect; $p \leq .05$), managing own emotions ($r = .32$; medium effect; $p \leq .05$), managing others emotions ($r = .32$; medium effect; $p \leq .05$) and utilising emotions ($r = .34$; medium effect; $p \leq .05$), and career cooperation.
- A significant positive relationship was evident between the four emotional intelligence variables, namely, perception of emotion ($r = .35$; medium effect; $p \leq .05$), managing own emotions ($r = .44$; medium effect; $p \leq .05$), managing others' emotions ($r = .45$;

medium effect; $p \leq .05$) and utilising emotions ($r = .35$; medium effect; $p \leq .05$), and career confidence.

- A significant positive relationship was evident between the three emotional intelligence variables, namely, perception of emotion ($r = .11$; small effect; $p \leq .05$), managing others' emotions ($r = .12$; small effect; $p \leq .05$) and utilising emotions ($r = .08$; small effect; $p \leq .05$), and total hardiness. A significant negative relationship was evident between managing own emotions ($r = -.27$; medium effect; $p \leq .05$) and total hardiness.
- A significant positive relationship was evident between the four emotional intelligence variables, namely, perception of emotion ($r = .10$; small effect; $p \leq .05$), managing own emotions ($r = .34$; medium effect; $p \leq .05$), managing others' emotions ($r = .14$; small effect; $p \leq .05$) and utilising emotions ($r = .11$; medium effect; $p \leq .05$), and commitment-alienation.
- A significant positive relationship was evident between the four emotional intelligence variables, namely, perception of emotion ($r = .18$; small effect; $p \leq .05$), managing own emotions ($r = .38$; medium effect; $p \leq .05$), managing others' emotions ($r = .17$; small effect; $p \leq .05$) and utilising emotions ($r = .17$; small effect; $p \leq .05$), and control-powerlessness.
- A significant positive relationship was evident between the emotional intelligence variable, managing own emotions ($r = .04$; small effect; $p \leq .05$) and challenge-threat.
- A significant negative relationship was evident between two of the emotional intelligence variable, namely, managing others' ($r = -.02$; small effect; $p \leq .01$), emotions utilising emotions ($r = -.12$; small effect; $p \leq .01$), and challenge-threat.
- A significant negative relationship was evident between the burnout variables, namely, exhaustion ($r = -.14$; small effect; $p \leq .01$) and cynicism ($r = -.09$; small effect; $p \leq .01$), while a significant positive relationship was evident between burnout and professional efficacy ($r = .19$; small effect; $p \leq .05$) and total career adaptability.
- A significant negative relationship was evident between the burnout variables, namely, exhaustion ($r = -.20$; small effect; $p \leq .01$) and cynicism ($r = -.08$; small effect; $p \leq .01$) and career concern, while a significant positive relationship was evident between the burnout variable of professional efficacy ($r = .27$; medium effect; $p \leq .05$) and career concern.
- A significant negative relationship was evident between the burnout variable, namely, exhaustion ($r = -.09$; small effect; $p \leq .01$), cynicism ($r = -.15$; small effect; $p \leq .01$), and career control, while a significant positive relationship was evident between the

burnout variable, namely, professional efficacy ($r = .16$; small effect; $p \leq .05$) and career control.

- A significant negative relationship was evident between burnout variable, namely exhaustion ($r = -.06$; small effect; $p \leq .01$), and cynicism ($r = -.02$; small effect; $p \leq .01$), and career curiosity.
- A significant positive relationship was evident between the burnout variable, namely, professional efficacy ($r = .14$; small effect; $p \leq .05$) and career curiosity.
- A significant negative relationship was evident between the burnout variable, namely, exhaustion ($r = -.20$; medium; $p \leq .05$), and career cooperation.
- A significant negative relationship was evident between burnout, namely cynicism ($r = -.02$; small effect; $p \leq .01$) and career cooperation,
- A significant negative relationship was evident between the burnout variables, namely, exhaustion ($r = -.14$; small effect; $p \leq .01$), and cynicism ($r = .13$; medium effect; $p \leq .05$) and career confidence. A significant positive relationship was evident between the burnout variable, namely, professional efficacy ($r = .27$; medium effect; $p \leq .05$) and career confidence.
- A significant negative relationship was evident between the burnout variable, namely, exhaustion ($r = -.46$; medium effect; $p \leq .05$), and cynicism ($r = -.53$; large effect; $p \leq .05$), and total hardiness while a significant positive relationship was evident between the burnout variable, namely, professional efficacy ($r = .27$; medium effect; $p \leq .05$) and total hardiness.
- A significant negative relationship was evident between the burnout variable, namely, exhaustion ($r = -.48$; medium effect; $p \leq .05$), and cynicism ($r = -.53$; large effect; $p \leq .05$), and total hardiness while a significant positive relationship was evident between the burnout variable, namely, professional efficacy ($r = .25$; medium effect; $p \leq .05$) and commitment-alienation.
- A significant negative relationship was evident between the burnout variable, namely, exhaustion ($r = -.41$; medium effect; $p \leq .05$), and cynicism ($r = -.54$; large effect; $p \leq .05$), and total hardiness while a significant positive relationship was evident between the burnout variable, namely, professional efficacy ($r = .35$; medium effect; $p \leq .05$) and control-powerlessness.
- A significant negative relationship was evident between the burnout variable, namely, exhaustion ($r = -.29$; small effect; $p \leq .05$), and cynicism ($r = -.29$; small effect; $p \leq .05$), and total hardiness while a significant positive relationship was evident between the

burnout variable, namely, professional efficacy ($r = .10$; small effect; $p \leq .05$) and challenge-threat.

- The results indicated that there was a significant relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .30$; small effect; $p \leq .05$), manageability ($r = .14$; small effect; $p \leq .05$) and meaningfulness ($r = .17$; small effect; $p \leq .05$), and total career adaptability.
- The results indicated that there was a significant positive relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .28$; small effect; $p \leq .05$), manageability ($r = .15$; small effect; $p \leq .05$) and meaningfulness ($r = .20$; small effect; $p \leq .05$), and total career concern.
- The results indicated that there was a significant positive relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .29$; small effect; $p \leq .05$), manageability ($r = .16$; small effect; $p \leq .05$) and meaningfulness ($r = .17$; small effect; $p \leq .05$), and total career control.
- The results indicated that there was a significant positive relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .21$; small effect; $p \leq .05$), manageability ($r = .05$; small effect; $p \leq .05$) and meaningfulness ($r = .06$; small effect; $p \leq .05$), and total career curiosity.
- The results indicated that there was a significant positive relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .21$; small effect; $p \leq .05$), manageability ($r = .06$; small effect; $p \leq .05$) and meaningfulness ($r = .11$; small effect; $p \leq .05$), and total career cooperation.
- The results indicated that there was a significant positive relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .23$; small effect; $p \leq .05$), manageability ($r = .14$; small effect; $p \leq .05$) and meaningfulness ($r = .18$; small effect; $p \leq .05$), and total career confidence.
- The results indicated that there was a significant relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .07$; large effect; $p \leq .05$), manageability ($r = .42$; medium effect; $p \leq .05$) and meaningfulness ($r = .49$; medium effect; $p \leq .05$), and total hardiness.
- The results indicated that there was a significant positive relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .08$; small effect; $p \leq .05$), manageability ($r = .40$ medium effect; $p \leq .05$) and meaningfulness ($r = .45$; medium effect; $p \leq .05$), and commitment-alienation.

- The results indicated that there was a significant relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .08$; small effect; $p \leq .05$), manageability ($r = .41$ medium effect; $p \leq .05$) and meaningfulness ($r = .50$; large effect; $p \leq .05$), and control-powerlessness.
- The results indicated that there was a significant positive relationship between the three variables of sense of coherence, namely, comprehensibility ($r = .01$; small effect; $p \leq .05$), manageability ($r = .29$ small effect; $p \leq .05$) and meaningfulness ($r = .33$; medium effect; $p \leq .05$), and challenge-threat.

The results also provided supportive evidence for the research hypothesis Ha1: There is a statistically significant, positive and negative interrelationship between the constructs of wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the constructs of resiliency-related behavioural capacities (career adaptability and hardiness).

6.3 INFERENCE (MULTIVARIATE) STATISTICS

Inferential and multivariate statistics consist of techniques that enable the researcher to study samples and then to make generalisations about the populations from which the samples were selected (Gravetter & Wallnau, 2011; Hogg & Tanis, 2010). This section discusses five steps namely, reporting and interpreting the (1) canonical correlational analysis, (2) standard multiple regression analysis, (3) structural equation modelling, (4) hierarchical moderated regression analysis, and (5) tests for significant mean differences.

6.3.1 Canonical correlations

A canonical correlational analysis was conducted to assess the overall relationship between the wellness-related dispositional attributes construct as a composite set of independent, latent variables (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities construct as a composite set of dependent latent variables (career adaptability and hardiness). The canonical correlation analysis tested research hypothesis Ha2: The wellness-related dispositional attributes construct variate (sense of coherence, emotional intelligence and burnout), as a composite set of independent, latent variables, was significantly and positively related to the resiliency-related, behavioural

capacities construct variate (career adaptability and hardiness), as a composite set of dependent latent variables.

Table 6.10 shows that the canonical correlation model displayed eight canonical functions (dimensions) of which the canonical correlations of the first five functions only were statistically significant. The full model η^2 type effect size (yielded by $1 - \lambda$: 1-.22) was .78 (large practical effect), indicating that the full model explained a substantial portion – approximately 78% – of the variance shared between the two variable sets. The overall canonical correlation in Table 6.10 shows that the relationship between the two canonical variate constructs was fairly strong ($R_c = .75$). The canonical variables of the first function accounted for 56% of the data variability. However, only the results of the first canonical function were used for testing research hypothesis Ha2 because the second function explained an additional 31% only of the variance shared between the two variable sets the data variability, the third function 10% only, the fourth function 8% only and the fifth function also only 8%.

Table 6.10: *Canonical Correlation Analysis – Overall Model Fit Statistics*

Measures of Overall Model Fit for Canonical Correlation Analysis					
Canonical Function	Overall Canonical Correlation (R_c)	Overall Squared Canonical Correlation (R_c^2)	Eigenvalue	F statistics	Probability (p)
1	.75	.56	1.2806	8.97	<.0001***
2	.56	.31	0.4511	4.95	<.0001***
3	.32	.10	0.1158	2.96	<.0001***
4	.29	.08	0.0926	2.70	<.0001***
5	.27	.08	0.0844	2.32	<.0001***
6	.16	.03	0.0257	1.25	.24
7	.11	.01	0.0127	0.89	.50
8	.04	.001	0.0013	0.25	.78
Statistic		Value		Approximate F Statistic	Probability(p)
Wilks' Lambda		.22		8.97	<.0001***
Pillai's Trace		1.18		7.31	<.0001***
Hotelling-Lawley Trace		2.06		10.68	<.0001***
Roy's Greatest Root		1.28		54.21	<.0001***

Notes: N = 409.*** $p \leq .001$

** $p \leq .01$

* $p \leq .05$

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The redundancy index results summarised in Table 6.11 show that, although the wellness-related canonical construct variables accounted for 56% ($Rc^2 = .56$; large practical effect) of the proportion of variance in the resiliency-related canonical construct variables, the wellness-related construct variables were able to predict 18% only (moderate effect) of the variance in the individual original resiliency-related canonical construct variables.

The wellness-related canonical construct variables contributed significantly in explaining the variance in the eight original resiliency-related construct (career adaptability and hardiness) variables, namely, career concern (35%); career control (35%); career curiosity (23%); career cooperation (19%); career confidence (39%); commitment-alienation (65%); control-powerlessness (68%) and challenge-threat (30%). Managing own emotion ($Rc = .53$) and meaningfulness ($Rc = .51$) exhibited the highest correlation with the canonical resiliency-related canonical construct variate. Managing own emotions ($Rc = .71$) and cynicism ($Rc = -.73$) were the strongest predictors of the wellness-related canonical construct variate. Control-powerlessness ($Rc = .68$) and commitment-alienation ($Rc = .65$) exhibited the highest correlation with the canonical wellness-related canonical construct variate and were also the strongest predictors of the resiliency-related canonical construct variate (control-powerlessness: $Rc = .91$; commitment-alienation: $Rc = .87$).

The Helio plot in Figure 6.1 illustrates these results and also the overall relationship between the wellness-related dispositional attributes canonical variate variables and the resiliency-related behavioural capacities canonical variate variables.

Table 6.11: *Standardised Canonical Correlation Analysis Results for the First Canonical Function Variate*

Variate/Variables	Canonical Coefficient (Weight)	Structure Coefficient (Canonical Loading)(R_c)	Canonical Cross-Loadings (R_c)	Squared Multiple Correlation (R_c^2)
Wellness-related dispositional attributes canonical variate (independent variables)				
Perception of Emotion (AES)	-.0001	.33	.24	.06
Managing Own Emotions (AES)	.50	.71	.53	.28
Utilising Emotions (AES)	-.07	.38	.28	.08
Managing Others' Emotions (AES)	.47	.39	.29	.08
Comprehension (OLQ)	-.05	.23	.16	.03
Manageability (OLQ)	.09	.58	.44	.19
Meaningfulness (OLQ)	.19	.68	.51	.26
Exhaustion (MBI)	-.14	-.62	-.47	.22
Professional Efficacy (MBI)	.27	.47	.36	.13
Cynicism (MBI)	-.43	-.73	-.55	.30
Percentage of overall variance of variables explained by their own canonical variables): .33				
Resiliency-related behavioural capacities canonical variate (dependent variables)				
Concern (CAAS)	.22	.46	.35	.11
Control (CAAS)	.09	.46	.35	.11
Curiosity (CAAS)	-.16	.30	.23	.05
Cooperation (CAAS)	-.05	.25	.19	.03
Confidence (CAAS)	.23	.51	.39	.14
Commitment-Alienation (PVS-II)	.42	.87	.65	.43
Control-Powerlessness (PVS-II)	.54	.91	.68	.48
Challenge-Threat (PVS-II)	-.14	.40	.30	.09
Percentage of overall variance of variables explained by their own canonical variables: .31				
Overall model fit measures (function 1): Overall $R_c^2 = .56$ (percentage of overall variance in the resiliency-related canonical construct variables accounted for by the wellness-related canonical construct variables) $F(p) = 8.97$ ($p < .0001$); $df = 72$; 2282.50 Wilk's lambda (λ) = .22 r^2 type effect size: $1 - \lambda = .78$ (large effect) Redundancy index (overall variance of the resiliency-related behavioural capacities attributes construct variables explained or predicted by the wellness-related dispositional attributes construct variables): proportion = .18				

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

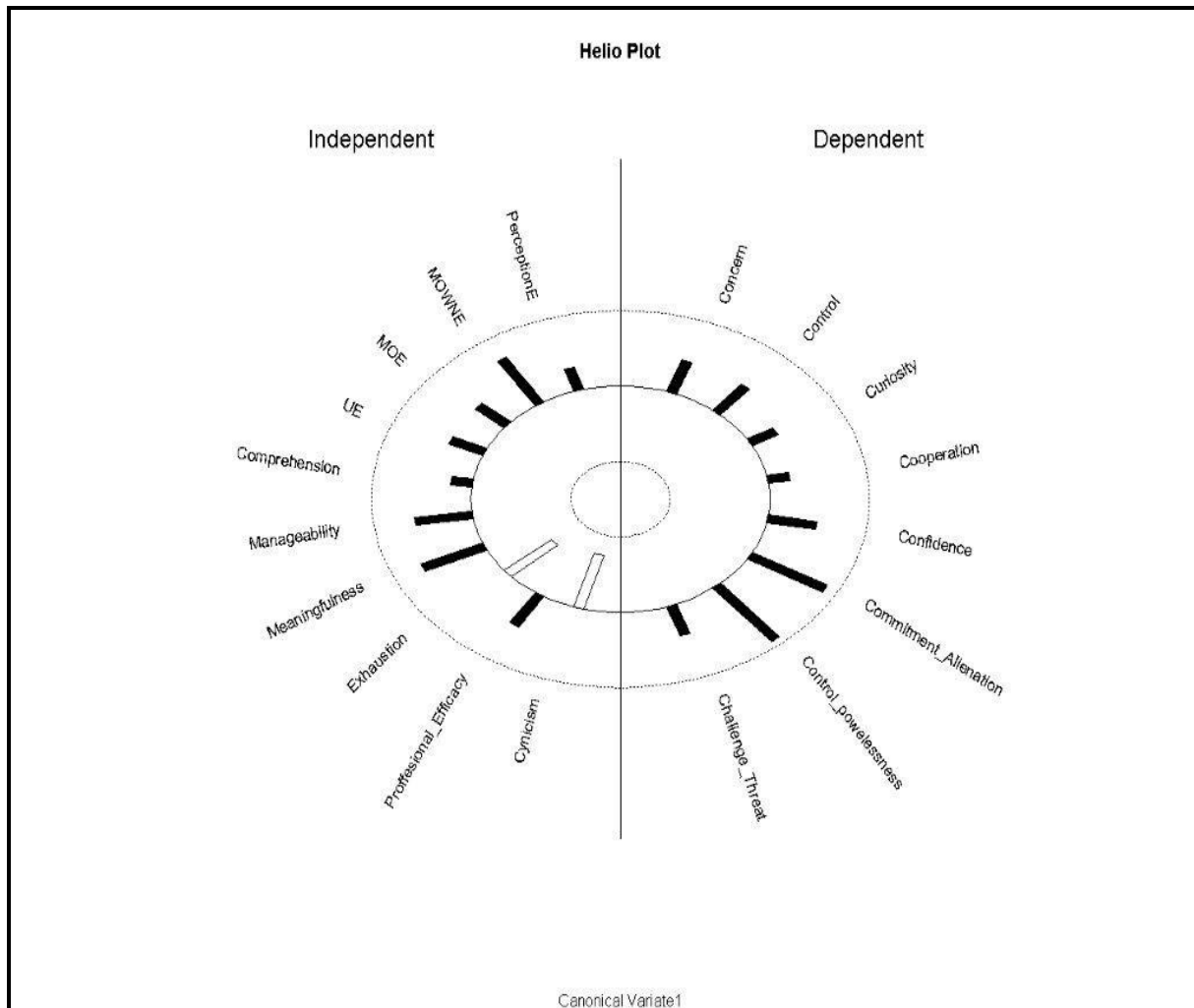


Figure 6.1. Overall relationships between the wellness-related dispositional attributes and the resiliency-related behavioural capacities canonical construct variates

The original variables of the wellness-related construct variables (OLQ, AES and MBI) are arrayed around the perimeter. The left semicircle lists the independent (wellness-related) canonical construct variables while the right semicircle lists the dependent (resiliency-related) canonical construct variables (CAAS and PVS-II). The relative size of the structure correlations is indicated by the relative length of the bars extending either toward the circumference (positive correlations) or towards the centre (negative correlations) (Shafto, Degani, & Kirklik, 1997). As also shown in Figure 6.1, the bars reaching outwards represent positive correlations. Negative canonical correlations were observed in terms of the exhaustion and cynicism variables.

The results provided supportive evidence for the research hypothesis Ha2: The wellness-related dispositional attributes construct variate (sense of coherence, emotional intelligence and burnout), as a composite set of independent variables, significantly positively and negatively relates to the resiliency-related behavioural capacities construct variate (career adaptability and hardiness), as a composite set of dependent latent variables.

6.3.2 Standard multiple regression analysis

A standard multiple linear regression analysis was conducted to test research hypothesis Ha3: The wellness-related dispositional attributes construct variables (sense of coherence, emotional intelligence and burnout) positively and negatively predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness). The F-test was used to test whether there was a significant regression between the independent (sense of coherence, emotional intelligence and burnout) and dependent variables (career adaptability and hardiness).

Prior to conducting the various regression analyses, collinearity diagnostics were examined to ensure that the variance inflation factors did not exceed 10, that the condition index was well below 15, and that the tolerance values were close to 1.0 (Field, 2009). In order to counter the probability of a type I error, the significance value was set at the 95% confidence interval level ($Fp \leq .05$).

6.3.2.1 *Regression results: emotional intelligence, sense of coherence and burnout as predictors of career adaptability*

Emotional intelligence as predictor of career adaptability

Table 6.12 summarises only the significant results of the multiple regression analyses that were conducted to assess whether emotional intelligence acted as a significant predictor of career adaptability. Table 6.12 shows that five regression models were performed, one model for each of the five CAAS variables. All five models were statistically significant ($Fp \leq .05$) with the models accounting for 29% ($R^2 = .29$: career concern); 18% ($R^2 = .18$: career control); 19% ($R^2 = .19$: career curiosity); 23% ($R^2 = .23$: career cooperation) and 24% ($R^2 = .24$: career confidence) of the variance in the CAAS variables. The results were moderate to large in practical effect.

Table 6.12: *Significant Multiple Regression Results: Emotional Intelligence as a Predictor of Career Adaptability*

Variable	Unstandardised Coefficient		Standardised Coefficient	t	P	F	Adjusted R Square	R
Model 1	B	SE B	β					
CA Concern (constant)	1.45	.23		6.44	.000***	41.7***	.29+++	.30
Managing Own Emotions	.34	.06	.32	5.46	.000***			
Managing Others' Emotions	.14	.05	.16	2.61	.01**			
Model 2	B	SE B	β					
CA Control (constant)	2.18	.22		10.1	.000***	25.43***	.18++	.45
Managing Own Emotions	.29	.06	.30	4.72	.000***			
Utilising Emotions	.13	.05	.14	2.44	.002**			
Model 3	B	SE B	β					
CA Curiosity (Constant)	1.42	.27		5.31	.000***	23.93***	.19++	.44
Perception of Emotions	.23	.07	.19	3.39	.001***			
Managing Own Emotions	.29	.08	.25	3.89	.000***			
Model 4	B	SE B	β					
CA Cooperation (constant)	1.18	.28		4.30	.000***	31.30***	.23++	.49
Perception of Emotions	.14	.07	.11	2.03	.004**			
Managing Others' Emotions	.36	.08	.34	5.38	.000***			
Utilising Emotions	.17	.07	.14	2.58	.001***			
Model 5	B	SE B	β					
CA Confidence (Constant)	1.53	.24				33.21***	.24++	.50
Perception of Emotions	.13	.06	.12	2.23	.03*			
Managing Own Emotions	.29	.08	.27	4.36	.000***			
Managing Others' Emotions	.13	.06	.14	2.21	.03*			

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$
+ $R^2 \leq 0.12$ (small practical effect size) ++ $R^2 \geq 0.13 \leq 0.25$ (moderate practical effect size) +++ $R^2 \geq 0.26$ (large practical effect size)

In model 1 (career concern), only managing own emotions ($\beta = .32$; $p = .000$) and managing others' emotions ($\beta = .16$; $p = .01$) acted as significant positive predictors of career concern,

with managing of own emotions contributing the most in explaining the variance in career concern.

In model 2, (career control), only managing own emotions ($\beta = .30$; $p = .000$) and utilising emotions ($\beta = .14$; $p = .002$) acted as significant positive predictors of career control, with managing own emotions contributing the most in explaining the variance in career control.

In model 3 (career curiosity), only perception of emotions ($\beta = .19$; $p = .001$) and managing own emotions ($\beta = .25$; $p = .000$) acted as significant predictors of career curiosity, with managing own emotions contributing the most in explaining the variance in career curiosity.

In model 4 (career cooperation), perception of emotions ($\beta = .11$; $p = .004$), managing own emotions ($\beta = .34$; $p = .000$) and utilising emotions ($\beta = .14$; $p = .001$) all acted as significant positive predictors of career cooperation, with managing own emotions contributing the most in explaining the variance in career cooperation.

In model 5 (career confidence), perception of emotions ($\beta = .12$; $p = .03$), managing own emotions ($\beta = .27$; $p = .000$) and managing other's emotions ($\beta = .14$; $p = .03$) acted as significant positive predictors of career confidence, with managing own emotions contributing the most in explaining the variance in career confidence

Sense of coherence as predictor of career adaptability

Table 6.13 summarises only the significant results of the multiple regression analyses that were conducted to assess whether sense of coherence acted as a significant predictor of career adaptability. Table 6.13 shows that five regression models were performed, one model for each of the five CAAS variables. All five models were statistically significant ($Fp \leq .05$) with the models accounting for 10% ($R^2 = .10$: career concern); 9% ($R^2 = .09$: career control); 5% ($R^2 = .05$: career curiosity); 5% ($R^2 = .05$: and career cooperation); and 7% ($R^2 = .07$: career confidence) of the variance in the CAAS variables. The results were small in practical effect.

Table 6.13: *Significant Multiple Regression Results: Sense of Coherence as a Predictor of Career Adaptability*

Variable	Unstandardised Coefficient		Standardised Coefficient	t	P	F	Adjusted R Square	R
Model 1	B	SE B	β					
CA Concern (Constant)	3.18	.17		18.52	.000***	15.33***	.10+	.32
Comprehension	.16	.06	.03	5.15	.000***			
Meaningfulness	.10	.03	.21	3.08	.002**			
Model 2	B	SE B	β					
CA Control (Constant)	3.35	.16		21.16	.000***	14.03***	.09+	.31
Comprehension	.16	.03	.27	5.27	.000***			
Meaningfulness	.06	.03	.13	2.00	.005**			
Model 3	B	SE B	β					
CA Curiosity (Constant)	3.41	.20		16.79	.000***	6.19***	.05+	.21
Comprehension	.16	.04	.22	4.13	.000***			
Model 4	B	SE B	β					
CA Cooperation (Constant)	3.04	.21		14.26	.000***	7.62***	.05+	.23
Comprehension	.16	.04	.21	4.15	.000***			
Meaningfulness	.09	.04	.15	2.25	.03*			
Model 5	B	SE B	β					
CA Confidence (Constant)	3.25	.18		17.68	.000***	10.73***	.07+	.27
Comprehension	.15	.03	.22	4.28	.000***			
Meaningfulness	.10	.04	.17	2.63	.01**			

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$
+ $R^2 \leq 0.12$ (small practical effect size) ++ $R^2 \geq 0.13 \leq 0.25$ (moderate practical effect size) +++ $R^2 \geq 0.26$ (large practical effect size)

In model 1 (career concern), only comprehension ($\beta = .03$; $p = .000$) and meaningfulness ($\beta = .21$; $p = .002$) acted as significant positive predictors of career concern, with meaningfulness contributing the most in explaining the variance in career concern.

In model 2 (career control), only comprehension ($\beta = .27$; $p = .000$) and meaningfulness ($\beta = .13$; $p = .005$) acted as significant positive predictors of career concern, with comprehension contributing the most in explaining the variance in career control.

In model 3 (career curiosity), only comprehension ($\beta = .22$; $p = .000$) acted as significant positive predictor of career concern, with comprehension contributing the most in explaining the variance in career curiosity.

In model 4 (career cooperation), only comprehension ($\beta = .21$; $p = .000$) and meaningfulness ($\beta = .15$; $p = .03$) acted as significant positive predictors of career concern, with meaningfulness contributing the most in explaining the variance in career cooperation.

In model 5 (career confidence), only comprehension ($\beta = .22$; $p = .000$) and meaningfulness ($\beta = .17$; $p = .01$) acted as significant positive predictors of career concern, with meaningfulness contributing the most in explaining the variance in career confidence.

Burnout as predictor of career adaptability

Table 6.14 summarises only the significant results of the multiple regression analyses that were conducted to assess whether burnout acts as a significant predictor of career adaptability. Table 6.14 shows that five regression models were performed, one model for each of the five CAAS variables. All five models were statistically significant ($Fp \leq .05$) with the models accounting for 3% ($R^2 = .03$: career concern and career curiosity); 5% ($R^2 = .05$: career control); 2% ($R^2 = .02$: career cooperation); and 11% ($R^2 = .11$: career confidence) of the variance in the CAAS variables. The results were small in practical effect.

Table 6.14: *Significant Multiple Regression Results: Burnout as a Predictor of Career Adaptability*

Variable	Unstandardised Coefficient		Standardised Coefficient	t	P	F	Adjusted R Square	R
Model 1 CA Concern (Constant)	B 3.18	SE B .15	β	26.3	.000***	4.86***	.03++	.19
Professional Efficacy	.08	.03	.16	3.24	.001***			
Model 2 CA Control (Constant)	B 4.08	SE B .13	β	30.81	.000***	8.59***	.05+	.25
Exhaustion	-.06	.02	-.19	-2.84	.005**			
Professional Efficacy	.08	.03	.15	3.05	.002**			
Model 3 CA Curiosity (Constant)	B 3.58	SE B .17	β	21.53	.000***	4.83***	.03+	.19
Exhaustion	-.06	.03	-.16	92.35	.02*			
Professional Efficacy	.10	.03	.16	3.22	.001***			
Model 4 Cooperation (Constant)	B 3.49	SE B .18	β	19.6	.000***	2.07***	.02+	.12
Exhaustion	-.04	.03	-.11	-1.57	.01**			
Professional Efficacy	.07	.03	.10	2.08	.04*			
Model 5 CA Confidence (Constant)	B 3.55	SE B .15	β	24.21	.000***	17.55***	.11+	.34
Exhaustion	-.08	.02	-.24	-3.79	.000***			
Professional Efficacy	.16	.03	.28	5.95	.01**			

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$
+ $R^2 \leq 0.12$ (small practical effect size) ++ $R^2 \geq 0.13 \leq 0.25$ (moderate practical effect size) + ++ $R^2 \geq 0.26$ (large practical effect size)

In model 1 (career concern), only professional efficacy ($\beta = .16$; $p = .001$) acted as a significant positive predictor of career concern.

In model 2 (career control), exhaustion ($\beta = -.19$; $p = .005$), acted as a significant negative predictor of career control and professional efficacy ($\beta = .15$; $p = .002$) acted as a significant positive predictor of career control, with exhaustion contributing the most in explaining the variance in career control.

In model 3 (career curiosity), exhaustion ($\beta = -.16$; $p = .02$) acted as a significant negative predictor of career curiosity and professional efficacy ($\beta = .16$; $p = .001$) acted as a significant positive predictor of career curiosity, with exhaustion contributing the most in explaining the variance in career curiosity.

In model 4 (career cooperation), exhaustion ($\beta = -.11$; $p = .01$) acted as a significant negative predictor of career cooperation, and professional efficacy ($\beta = .10$; $p = .04$) acted as significant positive predictor of career cooperation, with exhaustion contributing the most in explaining the variance in career cooperation.

In model 5 (career confidence), exhaustion ($\beta = -.24$; $p = .000$) acted as a significant negative predictor of career confidence and professional efficacy ($\beta = .28$; $p = .01$) acted as a significant positive predictor of career control, with exhaustion contributing the most in explaining the variance in career confidence.

6.3.2.2 *Regression results: emotional intelligence, sense of coherence and burnout as predictors of hardiness*

Three regression models were performed for each wellness-related construct (AES, OLQ, and MBI), one model for each of the three PVS-II variables.

Emotional intelligence as predictor of hardiness

Table 6.15 summarises only the significant results of the multiple regression analyses that were conducted to assess whether emotional intelligence acted as a significant predictor of hardiness. Table 6.15 shows that three regression models were performed, one model for each of the five PVS-II variables. All three models were statistically significant ($Fp \leq .05$) with

the models accounting for 15% ($R^2 = .15$: commitment-alienation); 16% ($R^2 = .16$: control powerlessness) and 3% ($R^2 = .03$: challenge-threat) of the variance in the PVS-II variables. The results were small to medium in practical effect.

Table 6.15: *Significant Multiple Regression Results: Emotional Intelligence as a Predictor of Hardiness*

Variable	Unstandardised Coefficient		Standardised Coefficient	t	p	F	Adjusted R Square	R
Model 1 HA Commitment-Alienation (Constant)	B	SE B	β					
	1.70	.23		7.27	.000***	18.27***	.15++	.39
Managing Own Emotions	.52	.07	.51	7.88	.000***			
Utilising Emotions	-.11	.06	-.12	-2.01	.05*			
Model 2 HA Control-powerlessness (Constant)	B	SE B	β					
	1.61	.20		8.20	.000***	19.48***	.16++	.40
Managing Own Emotions	.41	.06	.48	7.40	.000***			
Managing Others' Emotions	-.10	.05	-.14	-2.10	.04*			
Model 3 HA Challenge-Threat (Constant)	B	SE B	β					
	2.47	.17		14.66	.05*	3.71*	.03+	.19
Managing Own Emotions	.11	.05	.16	2.34	.02*			
Utilising Emotions	-.15	.04	-.23	-3.62	.000***			

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$

+ $R^2 \leq 0.12$ (small practical effect size) ++ $R^2 \geq 0.13 \leq 0.25$ (moderate practical effect size) + ++ $R^2 \geq 0.26$ (large practical effect size)

In model 1 (commitment-alienation), only managing own emotions ($\beta = .51$; $p = .000$) acted as significant positive predictor of commitment-alienation and utilising emotions ($\beta = -.12$; $p = .05$) acted as a significant negative predictor of commitment-alienation, with managing own emotions contributing the most in explaining the variance in commitment-alienation.

In model 2 (control-powerlessness), only managing own emotions ($\beta = .48$; $p = .000$) acted as a significant positive predictor of control-powerlessness and managing others' emotions ($\beta = -.14$; $p = .04$) acted as a significant negative predictor of control-powerlessness, with managing own emotions contributing the most in explaining the variance in control-powerlessness.

In model 3 (challenge-threat), only managing own emotions ($\beta = .16$; $p = .02$) acted as a significant positive predictor of challenge-threat and utilising emotions ($\beta = -.23$; $p = .000$) acted as a significant negative predictor of challenge-threat, with managing own emotions contributing the most in explaining the variance in challenge threat.

Sense of coherence as predictor of hardiness

Table 6.16 summarises only the significant results of the multiple regression analyses that were conducted to assess whether sense of coherence acted as a significant predictor of hardiness. Table 6.16 shows that three regression models were performed, one model for each of the five PVS-II variables. All three models were statistically significant ($Fp \leq .05$) with the models accounting for 22% ($R^2 = .22$: commitment-alienation); 25% ($R^2 = .25$: control powerlessness) and 11% ($R^2 = .11$: challenge-threat) of the variance in the PVS-II variables. The results were moderate in practical effect.

Table 6.16: *Significant Multiple Regression Results: Sense of Coherence as a Predictor of Hardiness*

Variable	Unstandardised		Standardised	t	p	F	Adjusted	R
	Coefficient		Coefficient				R Square	
Model 1	B	SE B	β					
HA Commitment-Alienation (Constant)	1.73	.16		11.16	.000***	38.16***	.22++	.47
Manageability	.12	.04	.20	3.12	.002**			
Meaningfulness	.16	.03	.32	5.34	.000***			
Model 2	B	SE B	β					
HA Control Powerlessness (Constant)	1.87	.13		14.65	.000***	46.68***	.25++	.51
Manageability	.08	.03	.13	2.05	.04*			
Meaningfulness	.18	.03	.42	7.11	.000***			
Model 3	B	SE B	β					
HA Challenge Threat (Constant)	1.81	.11		16.22	.000**	18.16**	.11+	.35
Manageability	.06	.03	.13	1.94	.05*			
Meaningfulness	.09	.02	.26	3.96	.000***			

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$
+ $R^2 \leq 0.12$ (small practical effect size) ++ $R^2 \geq 0.13 \leq 0.25$ (moderate practical effect size) + ++ $R^2 \geq 0.26$ (large practical effect size)

In model 1 (commitment-alienation), only manageability ($\beta = .20$; $p = .002$) and meaningfulness ($\beta = .32$; $p = .000$) acted as significant positive predictors of commitment-alienation, with meaningfulness contributing the most in explaining the variance in commitment-alienation.

In model 2 (control-powerlessness), only manageability ($\beta = .13$; $p = .04$) and meaningfulness ($\beta = .42$; $p = .000$) acted as significant positive predictors of control-powerlessness, with meaningfulness contributing the most in explaining the variance in control-powerlessness.

In model 3 (challenge-threat), only manageability ($\beta = .13$; $p = .05$) and meaningfulness ($\beta = .26$; $p = .000$) acted as significant positive predictors of challenge-threat, with meaningfulness contributing the most in explaining the variance in challenge threat.

Burnout as predictor of hardiness

Table 6.17 summarises only the significant results of the multiple regression analyses that were performed to assess whether burnout acts as a significant predictor of hardiness. Table 6.17 shows that three regression models were performed, one model for each of the five PVS-II variables. All three models were statistically significant ($Fp \leq .05$) with the models accounting for 23% ($R^2 = .23$: commitment-alienation); 14% ($R^2 = .14$: control powerlessness); 13% ($R^2 = .13$ challenge-threat) of the variance in the PVS-II variables. The results are moderate in practical effect.

Table 6.17: *Significant Multiple Regression Results: Burnout as a Predictor of Hardiness*

Variable	Unstandardised Coefficient		Standardised coefficient	t	P	F	Adjusted R square	R
Model 1	B	SEB	β					
HA Commitment-Alienation (constant)	7.6	.55		13.7	.000***	40.95***	.23++	.48
Exhaustion	-1.4	.26	-.45	-5.5	.000***			
Cynicism	-.81	.20	-.31	-4.0	.000***			
Model 2								
HA Control powerlessness (constant)	B	SE	β					
	2.9	.35			.000***	20.97***	.14++	.36
Professional efficacy	1.0	.19	.49	5.7	.000***			
Cynicism	-.96	.23	-.31	-4.1	.000***			
Model 3								
HA Challenge Threat (constant)	B	SEB	β					
	2.9	.35			.000***	21.00***	.13++	.37
Professional efficacy	-.33	.16	-.12	-2.0	.04*			

Notes: N = 409. *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$ + $R^2 \leq 0.12$ (small practical effect size) ++ $R^2 \geq 0.13 \leq 0.25$ (moderate practical effect size) + ++ $R^2 \geq 0.26$ (large practical effect size)

In model 1 (commitment-alienation), exhaustion ($\beta = -.45$; $p = .000$) and cynicism ($\beta = -.31$; $p = .000$) acted as significant negative predictors of commitment-alienation, with cynicism contributing the most in explaining the variance in commitment-alienation.

In model 2 (control-powerlessness), only professional efficacy ($\beta = .49$; $p = .000$) acted as a significant positive predictor of control-powerlessness and cynicism ($\beta = -.31$; $p = .000$) acted as significant negative predictor of control-powerlessness, with cynicism contributing the most in explaining the variance in control-powerlessness.

In model 3 (challenge-threat), only professional efficacy ($\beta = -.12$; $p = .04$) acted as a significant negative predictor of challenge-threat.

Table 6.18: *Summary of the Wellness-Related Dispositional Attributes that acted as Significant Predictors of the Resiliency-Related Behavioural Capacities*

Significant Predictor (Independent) Variables: Wellness-Related Dispositional Attributes	Criterion Dependent Variables: Resiliency-Related Behavioural Capacities	
	Career Adaptability (CAAS)	Hardiness (PVS-II)
	Career Concern	Commitment- Alienation
Emotional intelligence		
Managing own emotions	Positive prediction	Positive prediction
Managing others' emotions	Positive prediction	
Utilising emotions		Negative prediction
Sense of coherence		
Comprehensibility	Positive prediction	
Meaningfulness	Positive prediction	Positive prediction
Manageability		Positive prediction
Burnout		
Professional efficacy	Positive prediction	
Exhaustion		Negative prediction
Cynicism		Negative prediction

	Career control	Control-Powerlessness
Emotional Intelligence		
Managing own emotions	Positive prediction	Positive prediction
Utilising emotions	Positive prediction	
Managing others' emotions		Negative prediction
Sense of coherence		
Comprehensibility	Positive prediction	
Meaningfulness	Positive prediction	Positive prediction
Manageability		Positive prediction
Burnout		
Professional efficacy	Positive prediction	Positive prediction
Exhaustion	Negative prediction	
Cynicism		Negative prediction
	Career Curiosity	Challenge-Threat
Emotional Intelligence		
Managing own emotions	Positive prediction	Positive prediction
Perception of emotions	Positive prediction	
Utilising emotions		Negative predictions
Sense of coherence		
Comprehensibility	Positive prediction	
Manageability		Positive prediction
Meaningfulness		Positive prediction
Burnout		
Professional efficacy	Positive prediction	Negative prediction
Exhaustion	Negative prediction	

	Career cooperation	
Emotional Intelligence		
Perception of emotions	Positive prediction	
Managing own emotions	Positive prediction	
Utilising emotions	Positive prediction	
Sense of coherence		
Comprehensibility	Positive prediction	
Meaningfulness	Positive prediction	
Burnout		
Professional efficacy	Positive prediction	
Exhaustion	Negative prediction	
	Career confidence	
Emotional Intelligence		
Managing own emotions	Positive prediction	
Perceptions of emotions	Positive prediction	
Managing others' emotions	Positive prediction	
Sense of coherence		
Comprehensibility	Positive prediction	
Meaningfulness	Positive prediction	
Burnout		
Professional efficacy	Positive prediction	
Exhaustion	Negative prediction	

The results above provided supportive evidence for the research hypothesis Ha3: The wellness-related dispositional attributes construct variables (emotional intelligence, sense of coherence and burnout) significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).

6.3.3 Structural equation modelling

On the grounds of the significant relationships indicated between the independent and dependent canonical construct variates, and using the results of the canonical correlation analysis as the baseline measurement model, structural equation modelling was performed to test research hypothesis Ha4: The theoretically hypothesised psychological coping profile displayed a good fit with the empirically manifested structural model.

The reason for the approach was to validate empirically the psychological coping profile that had emerged from numerous analyses of the inter- and overall relationships between the wellness-related dispositional attributes construct variables and the resiliency-related behavioural capacities construct variables. The test statistics and goodness of fit indices provided by AMOS 18 (Arbuckle, 2009) were inspected. Three alternative models were tested with the third model producing the best fit.

Table 6.19 summarises the fit statistics of the three models that were tested. Model 1 included all the wellness-related construct variables (OLQ, AES and MBI variables) and all the resiliency-related construct variables (CAAS and PVS-II variables). Model 1 did not produce a good fit with the data: CMIN 337.32 (49 df); CMIN/df = 6.884; $p = .000$; NFI = .86; RFI = .81; TLI = .83; CFI = .88, RMSEA = .12 and SRMR = .11.

Model 2 included only managing own emotions, meaningfulness and cynicism as wellness-related constructs and career confidence, commitment-alienation and control-powerlessness as resiliency-related constructs. The model data fit did not improve: CMIN 157.18 (13 df); CMIN/df = 12.09; $p = .000$; NFI = .87; RFI = .79; TLI = .80; CFI = .88, RMSEA = .16 and SRMR = .098; Δ CMIN = 180.14.

As may be seen in figure 6.19, the third model included only managing own emotions and cynicism as wellness-related constructs and commitment-alienation and control-

powerlessness as resiliency-related constructs. The model produced a good fit with the data: CMIN 1.22 (1 df); CMIN/df = 1.22; $p = .000$; NFI = .998; RFI = .99; TLI = .998; CFI = 1.00, RMSEA = .02 and SRMR = .006; $\Delta\text{CMIN} = 155.96$. However, the model appears to be overfitted. This was considered in the interpretation of the results. Notwithstanding this concern, the results of the model were in line with the observations made in terms of the canonical correlation analyses about the best predictors of each construct.

Table 6.19: *Structural Equation Modelling Results: Fit Statistics*

Model	CMIN	df	CMIN/df	p	NFI	RFI	TLI	CFI	ΔCMIN	RMSEA	SRMR
1	337.32	49	6.884	.00	.86	.81	.83	.88		.12	.11
2	157.18	13	12.09	.00	.87	.79	.80	.88	180.14	.16	.098
3	1.22	1	1.22	.00	.998	.99	.998	1.00	155.96	.02	.006

Note: CMIN(χ^2) = chi-square; df = degrees of freedom; p = significance level; NFI = Bentler-Bonett normed fit index; RFI = relative fit index; TLI = non-normed fit index; CFI = comparative fit index; RMSEA = root-mean-square error of approximation. SRMR = standardised root-mean-square residual.

Figure 6.2 specifies the standardised path coefficients between the wellness-related dispositional attributes construct and its variables and the standardised path coefficients between the resiliency-related behavioural capacities and its variables as per the best fit model. The standardised path coefficient estimates between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct are also specified. Similar to the results observed in the canonical correlation analysis, managing own emotions ($\beta = .39$) and cynicism ($\beta = -.56$) were the strongest predictors of the wellness-related dispositional attributes construct, with cynicism accounting the most and negatively in explaining the variance in the wellness-related construct.

Commitment-alienation ($\beta = .91$) and control-powerlessness ($\beta = .93$) were the strongest predictors of the resiliency-related behavioural capacities construct, with control-powerlessness contributing the most and positively in explaining the variance in the resiliency-related construct. Overall, the wellness-related dispositional attributes construct positively predicted the resiliency-related behavioural capacities construct ($\beta = 1.0$). The squared multiple correlations showed that the model explained 100% of the variance in the overall resiliency-related construct, 86% of the variance in control-powerlessness and 83% of the variance in commitment-alienation (large practical effect).

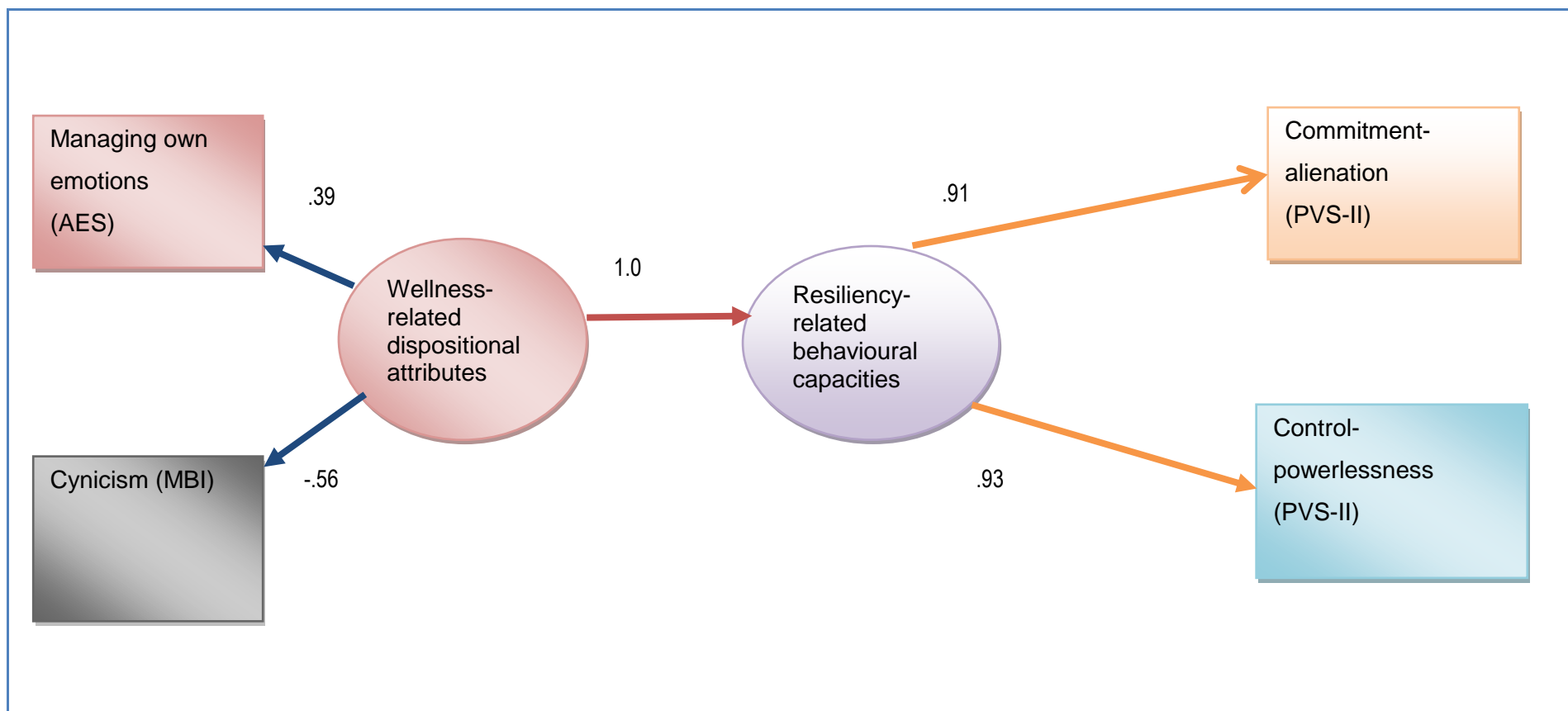


Figure 6.2: Best fit structural model (model 3) linking the significant wellness-related dispositional attributes construct variables with the resiliency-related behavioural capacities construct variables. Note: All standardised path coefficient estimates *** $p \leq .001$.

These results provided supportive evidence for the research hypothesis Ha4: The theoretically hypothesised psychological coping profile displayed a good fit with the empirically manifested structural model.

6.3.4 Hierarchical moderated regression analysis

On the grounds of the canonical correlation results and the best fit structural equation model presented in Figure 6.2 and Table 6.20, hierarchical moderated regression analyses were performed to test research hypothesis Ha5: The biographical variables (age, gender, race and marital status) positively moderated the relationship between the independent variables (wellness-related dispositional attributes construct variables: managing own emotions and cynicism) and the dependent variables (the resiliency-related behavioural capacities construct variables: commitment-alienation and control powerlessness) as manifested in the best fit model. Standardised mean-centred predictor data were used for this purpose.

The results of the hierarchical moderated regression models are reported in Tables 6.20 to 6.22 below.

6.3.4.1 *Age as a moderator*

Table 6.20 depicts the final step of the results of the moderated regression analysis with age as moderator of the relationship between managing own emotions and cynicism, and commitment-alienation and control-powerlessness, respectively.

Table 6.20: *Results of the Moderated Regression Analysis: The Effects of Managing Own Emotions, Cynicism and Age on Commitment-Alienation and Control-Powerlessness*

	Commitment Alienation β	f^2	Control- Powerlessness β	f^2
Age	-.01		.15***	
Managing Own Emotions	.57***		.67***	
Age x Managing Own Emotions	-.25**	.02	-.29***	.03
Model Statistics				
ΔR^2	.02		.02	
F	22.35***		35.88***	
ΔF	7.78**		11.21***	
Age	-.08		.10*	
Cynicism	-.53***		-.16*	
Age x Cynicism	-.02	.001	.02	.00
Model Statistics				
ΔR^2	.00		.00	
F	55.32***		4.78**	
ΔF	.12		.07	

Note: N = 409. The results represent the final step in the regression model. Standardised regression beta weights (β) significant at *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$. Age was coded as follows: $\leq 25 = 0$. $\geq 25 = 1$. f^2 = Cohen's practical effect size.

As indicated in Table 6.20, in terms of the main effects, managing own emotions acted as a significant predictor of both commitment-alienation ($\beta = .57$; $p \leq .001$) and control-powerlessness ($\beta = .67$; $p \leq .001$), while age acted as a significant predictor of control-powerlessness only ($\beta = .15$; $p \leq .001$). In terms of the interaction effects, age significantly moderated the relationship between managing own emotions and commitment-alienation ($\Delta R^2 = .02$; $\Delta F = 7.78$; $p \leq .01$) and control-powerlessness ($\Delta R^2 = .02$; $\Delta F = 11.21$; $p \leq .01$). No significant interaction (moderating) effects were observed in terms of age and the relationship between cynicism and the hardiness variable commitment-alienation and control-powerlessness. Cynicism had significant negative main effects on commitment-alienation ($\beta = -.53$; $p \leq .001$) and control-powerlessness ($\beta = -.16$; $p \leq .05$) while age had a significant main

effect on control-powerlessness only ($\beta = .10$; $p \leq .05$). Overall, all the interaction effects were small in practical effect.

The nature of the interactions was probed using simple slope tests and by graphing the interaction using values of the moderator at the mean, as well as one standard deviation above and below the mean (Cohen, Cohen, Aiken, & West, 2003). As shown in Figures 6.3 and 6.4, the relationship between managing own emotions and commitment-alienation and control-powerlessness was stronger for those who were younger (≤ 25 years) as compared to those who were older (≥ 25 years). The younger participants who scored high on managing own emotions had also significantly higher scores than the older participants on their hardy-commitment and hardy-control.

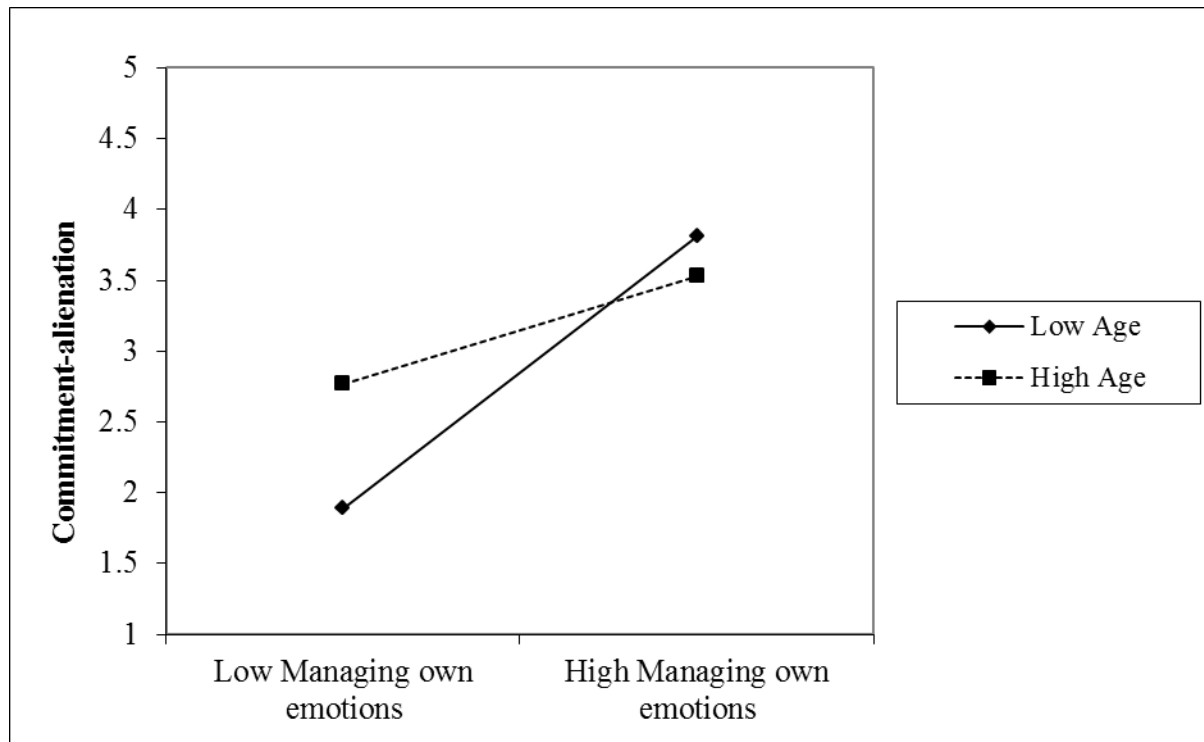


Figure 6.3: Interaction effects between age, managing own emotions and commitment-alienation.

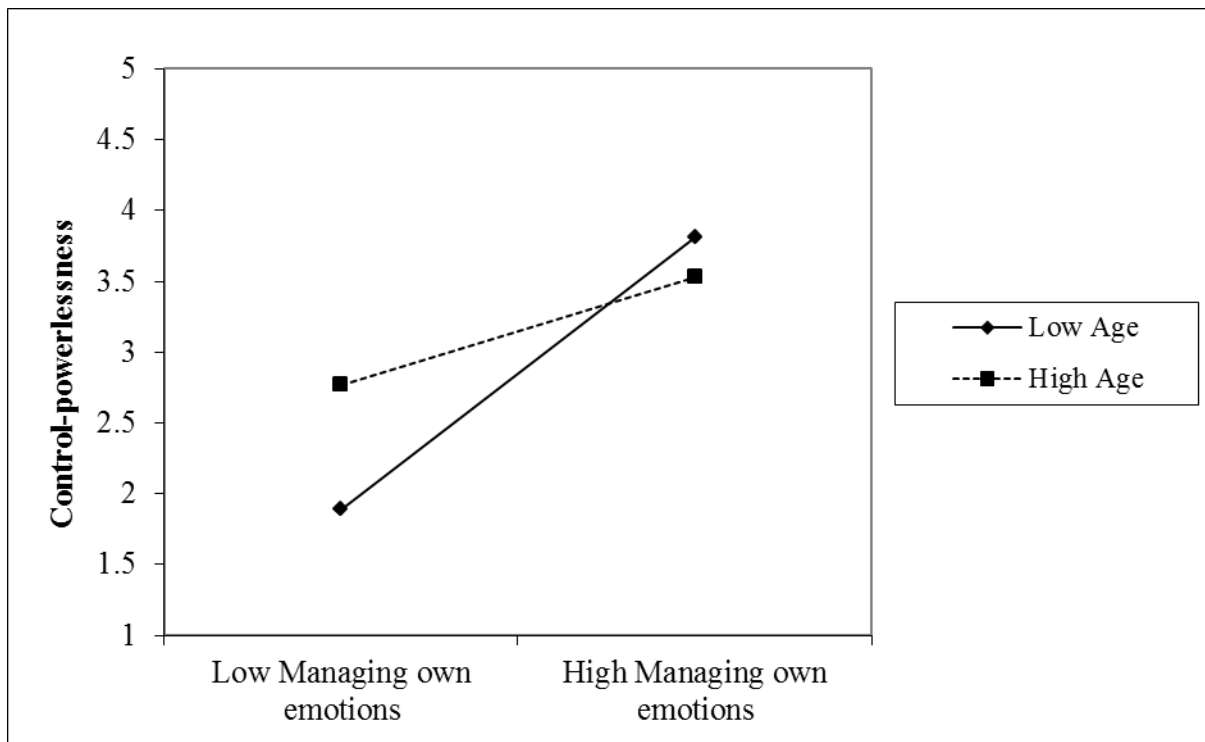


Figure 6.4: Interaction effects between age, managing own emotions and control-powerlessness.

6.3.4.2 Gender as a moderator

Table 6.21 summarises the results of the moderated regression analysis and the effects of gender on the relationship between managing own emotions, cynicism and commitment-alienation and control-powerlessness, respectively.

Table 6.21: *Results of the Moderated Regression Analysis: The Effects of Managing Own Emotions, Cynicism and Gender on Commitment-Alienation and Control-Powerlessness*

	Commitment Alienation β	f^2	Control- Powerlessness β	f^2
Gender	.06		.15*	
Managing Own Emotions	.28**		.38**	
Gender x Managing Own Emotions	.10*	.00	.04	.00
Model Statistics				
ΔR^2	.00		.00	
F	20.49**		30.99**	
ΔF	.19		.60	
Gender	.13		.17**	
Cynicism	-.53***		-.12	
Gender x Cynicism	-.02	.00	-.06	.00
Model Statistics				
ΔR^2	.00		.00	
F	57.28***		7.12	
ΔF	.83		.47	

Note: N = 409. The results represent the final step in the regression model. Standardised regression beta weights (β) significant at *** $p \leq .001$ ** $p \leq .01$ * $p \leq .05$. Gender was coded as follows: males = 0, females = 1.

As indicated in Table 6.2, in terms of the main effects, managing own emotions acted as a significant predictor of both commitment-alienation ($\beta = .28$; $p \leq .001$), and control powerlessness ($\beta = .38$; $p \leq .001$) while gender acted as a significant predictor of control-

powerlessness only ($\beta = .15$; $p \leq .001$). In terms of the interaction effects, gender significantly moderated the relationship between managing own emotions and commitment-alienation ($\Delta R^2 = .00$; $\Delta F = 20.49$; $p \leq .01$).

Cynicism had significant negative main effects on commitment-alienation ($\beta = -.53$; $p \leq .001$) while gender had a significant main effect on control-powerlessness only ($\beta = .17$; $p \leq .05$). No significant interaction (moderating) effects were observed in terms of gender and the relationship between cynicism and the two hardiness variables. Figure 6.5 shows that for the females, the relationship between managing own emotions and commitment was stronger than those for their male counterparts. Female participants who scored high on managing own emotions had also significantly higher scores than the males on their hardy-commitment.

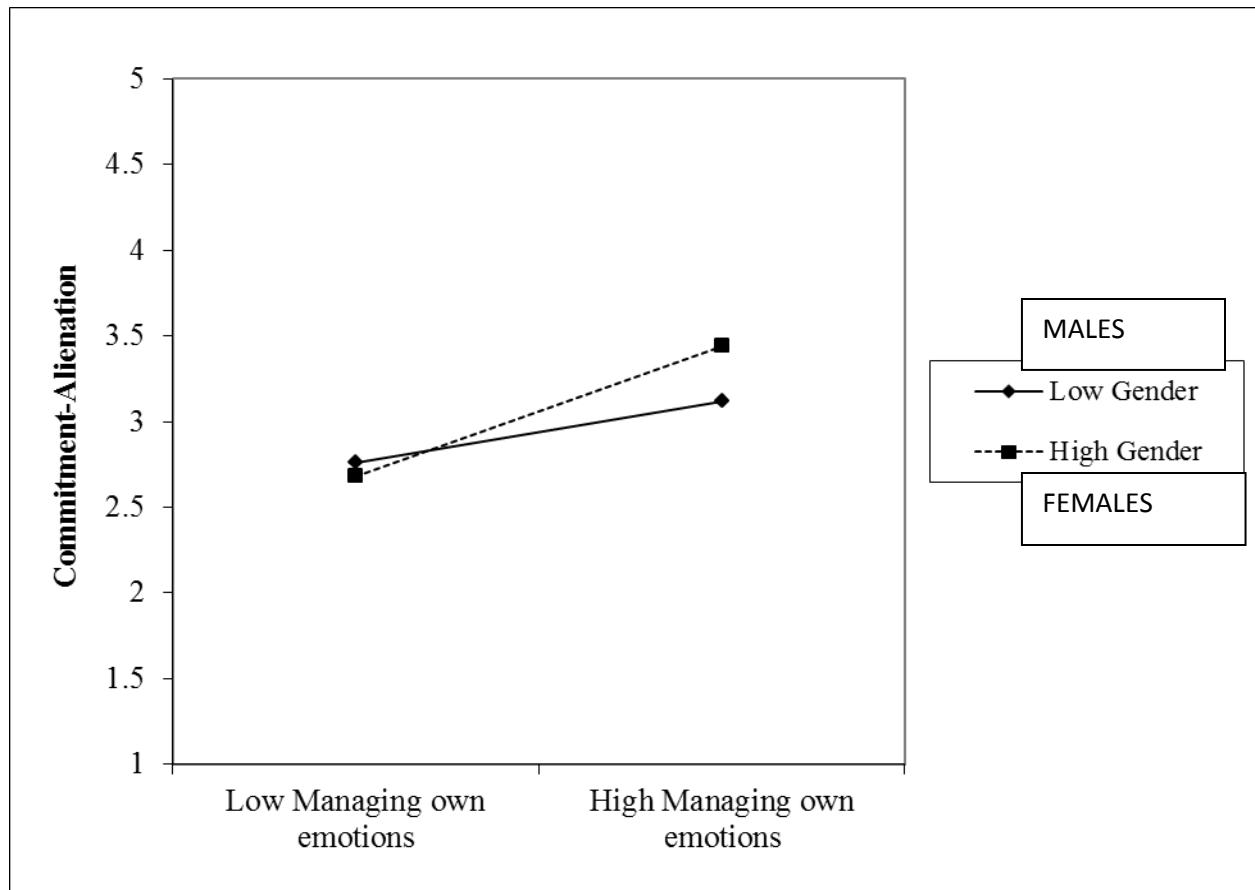


Figure 6.5: Interaction effects between gender, managing own emotions and commitment-alienation. Low gender = males; high gender = females.

6.3.4.3 *Race as a moderator*

No significant main and interaction effects were observed for race, implying that race did not act as a significant moderating variable for the relationship between the SEM model wellness-related dispositional attributes construct variables and the resiliency-related behavioural capacities construct variables and therefore will not be reported.

6.3.4.4 *Marital status as a moderator*

No significant main and interaction effects were observed for marital status, implying that marital status did not act as a significant moderating variable for the relationship between the SEM model wellness-related dispositional attributes construct variables and the resiliency-related behavioural capacities construct variables and therefore will not be reported.

The results provided some supportive evidence for research hypothesis Ha5 in terms of age and gender: The biographical variables (age and gender) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct.

Table 6.22 summarises the significant moderating effects between best fit model wellness-related dispositional attributes and resiliency-related behavioural capacities.

Table 6.22: *Summary of the Significant Moderators of the Relationship between the Best Fit Model Wellness-related Dispositional Attributes and Resiliency-related Behavioural Capacities*

Wellness-related Dispositional Attributes	Moderator Age	Resiliency-related Behavioural Capacities
Managing Own Emotions	Age	Commitment-alienation
	Age	Control-powerlessness
Cynicism	Age did not moderate	Commitment-alienation
	Age did not moderate	Control-powerlessness
Wellness-related Dispositional Attributes	Moderator Gender	Resiliency-related Behavioural Capacities
Managing Own Emotions	Gender	Commitment-alienation
	Gender did not moderate	Control-powerlessness
Cynicism	Gender did not moderate	Commitment-alienation
	Gender did not moderate	Control-powerlessness

6.3.5 Reporting of the tests for significant mean differences

A test for detecting significant mean differences (Mann-Whitney U-test) was conducted to test research hypothesis Ha6: There are significant mean differences exist between the sub-groups of biographical variables that acted as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct, as manifested in the sample of respondents.

The test for significant mean differences was, therefore, conducted only in terms of age and gender in terms of their scores on managing own emotions, commitment-alienation and control-powerlessness. Table 6.32 summarises the results of the Mann-Whitney test for age and gender in terms of these variables.

Table 6.23: *Results of the Mann-Whitney Test for Age in terms of Managing Own Emotions, Commitment-Alienation and Control-Powerlessness*

Moderating Variable		N	Mean Rank	Mann-Whitney U	z	p
Age: Managing Own Emotions	<25	190	204.94	20794.00	-.009	.993 n/s
	>26	219	205.05	44906.00		
Age: Commitment-Alienation	<25	190	210.75	40042.00	-.917	.359 n/s
	>26	219	200.01	43803.00		
Age: Control-Powerlessness	<25	190	208.39	39595.00	-.542	.588 n/s
	>26	219	202.05	44250.00		

Note: n/s = not significant

Table 6.23 reveals that no significant differences were observed between the two age groups in terms of their levels of managing own emotions, commitment-alienation and control-powerlessness.

Table 6.24: *Results of the Mann-Whitney Test for Gender in terms of Managing Own Emotions, Commitment-Alienation and Control-Powerlessness*

Moderating Variable		N	Mean Rank	Mann-Whitney U	z	p
Gender: Managing Own Emotions	Male	140	204.16	18713.00	-.103	.918 n/s
	Female	269	205.43	55262.0		
Gender: Commitment-Alienation	Male	140	194.26	17326.00	-1.327	.184 n/s
	Female	269	210.59	56649.00		
Gender: Control-Powerlessness	Male	140	215.10	17416.50	-1.247	.212 n/s
	Female	269	199.75	53731.50		

Note: n/s = not significant

Table 6.24 reveals that no significant differences were observed between males and females in terms of their levels of managing own emotions, commitment-alienation and control-powerlessness.

The results provided evidence in support of research hypothesis H06: There were no significant mean differences between the sub-groups of biographical variables that acted as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct, as manifested in the sample of respondents.

6.4 INTEGRATION AND DISCUSSION OF RESEARCH RESULTS

6.4.1 Biographical profile of sample

The participants in the sample were predominantly black, female, single and fell within the age groups of 25 years and younger and over 26 years (early career stage) and were permanently employed as call centre agents in the three largest outsourced financial call centres in Africa. The biographical profile obtained for the sample showed that these main sample characteristics that had to be considered in the interpretation of the empirical results were age and gender.

6.4.2 Descriptive statistics: Interpretation of results

Tables 6.1, 6.2, 6.3, 6.4, 6.5 and 6.6 are of relevance in this section.

6.4.2.1 *Wellness-related dispositional attributes profile*

The wellness-related dispositional attributes profile revealed the participants as possessing a strong sense of coherence, in particular, a sense of meaningfulness and manageability. This, in turn, suggests that the participants were able to identify emotionally and make an effort in handling the demands of their environment. According to Sairenchi et al. (2011), individuals who show a strong sense of coherence also manifest a lower stress, less emotional distress and lower levels of anxiety. Participants with a strong sense of coherence also display shorter periods of harmful tension than those with a weaker sense of coherence (Moksnes et al., 2011). According to Mayer (2011), meaningfulness is promoted as having an influence on events while, without meaningfulness, life is experienced as a burden. In addition, individuals with high scores on meaningfulness are more likely to confront life experiences positively than those who did not score as highly. Even in the face of strenuous life events the attribution of sense to such events lends motivation to cope with the situation. Research conducted by Varga, Tóth, Roznár, Oláh, Betlehem and Jeges (2012) revealed that participants who score high on meaningfulness will seek and procure the power sources which enable an individual to cope with a miserable state.

The low mean scores obtained on comprehensibility may suggest that the participants may experience life as chaotic and unpredictable (Viljoen, 2012). However, the high scores on meaningfulness and manageability suggest that the participants have confidence in their capacity to overcome stressors and deal with the demands imposed by stimuli. The ability to judge whether a challenge is worthwhile is coupled with meaningfulness (Viljoen, 2012).

The results further indicated that the participants appeared to be aware of their own emotions and managed their emotions accordingly. The participants with high emotional intelligence were able to relate to and cope with daily demands. According to research conducted by Pillay, Viviers and Mayer (2013), individuals with high emotional intelligence have the ability to perceive and adapt their emotions effectively by accurately perceiving the emotions required to promote the intellectual growth that may result in a healthy and stable workforce (Pillay et al.,

2013). However, the low mean scores obtained for perception of emotions suggest the participants may not have the ability to perceive and express emotions adaptively despite their high scores on managing own emotions and managing others' emotions. The ability to express these feelings of motivation is viewed as an important psychological resource for adaptive intrapersonal and interpersonal functioning (Coetzee & Harry, 2014).

The participants' high scores on exhaustion and cynicism suggest that individuals may experience burnout in response to stressful work environments and that they may also experience feelings of incompetence and lack of achievement. However, the high scores on professional efficacy suggest they may perceive themselves as being effective in their work. According to research conducted by Johnston, De Bruin, Geldenhuys, Györkos, Massoudi and Rossier (2013), individuals may perceive demands as challenge stressors and not as hindrance stressors and they may even experience positive emotions, motivation and coping which may, in turn, decrease the risk of burnout.

Overall, the results of the wellness-related dispositional profile of the participants suggest that the participants possess the ability both to perceive the stimuli that confront them as consistent and structured and to perceive that the resources at their disposal are adequate to meet life's demands. The results also suggest that the participants have the feeling that life makes sense emotionally while they possess the ability to understand their lives and manage situations and, most importantly, to find life sufficiently meaningful to be motivated to continue living (Sardu et al., 2012).

The results showed that the participants are able to appraise their emotional environment and to generate the emotions that foster the thought processes that are required for reasoning and decision making (Dahl & Cilliers, 2013). In line with research by Jain (2012), the results suggest that the participants understand both themselves and others while they have the ability to relate to people, to adapt to and cope with their immediate surrounding and to be more successful in dealing with environmental demands (Jain, 2012).

The results also suggest the participants are prone to higher burnout levels. This may be the result of low personal resources and low resilience. These results are consistent with the findings of Harry (2011), which indicated that, when individuals possess low personal resources,

they manifest low resilience. However, a sense of coherence may function as a 'meaning-providing variable' and may help to ward off burnout. Emotional intelligence is viewed as a crucial psychosocial meta-capacity for successful adaptation in all spheres of life (Coetzee & Harry, 2014).

6.4.2.2 Resiliency-related behavioural capacities profile

The resiliency-related behavioural capacities profile suggests that those participants who prefer to be in control of their careers manifest the high self-regulation strategies that enable them to adjust to the needs of the various work settings. These participants seemingly also exerted some sort of influence and control over their vocational future. According to research conducted by Ferreira (2012), individuals who possess a high sense of control are deeply involved in their career or work situations. Those participants who exercise control in their careers clearly take personal responsibility for their career and work experiences, while they also tend to possess a feeling of self-governing, persistence and decisiveness regarding their vocational future (Coetzee & Harry, 2013). However, it would appear that cooperation is slightly less important to them which suggests, in turn, that the participants felt less positive about working together in joint operations in their careers. These findings are consistent with research conducted by Ferreira (2012), who found that the fact that certain individuals prefer to work in isolation throughout their careers may be the result of their employment level.

The participants' high scores on commitment in terms of the hardiness aspect suggest that the participants believe in the truth, importance and interest value of whom they are and what they are doing and, therefore, they tend to involve themselves fully in the many situations of life, including work, family, interpersonal relationships and social institutions (Ferreira, 2012). On the other hand, the participants' low scores on challenge suggest they may view difficult experiences as potential threats and not as opportunities for personal growth.

Overall, the results of the resiliency-related behavioural capacities profile suggest that those participants with control over their vocational future and who display commitment, view stressful situations as both meaningful and interesting. These results are consistent with the findings of Ferreira (2012) that individuals who score high on control and commitment view stressful situations as both interesting and meaningful.

6.4.3 Empirical research aim 1: Interpretation of the correlation results

Research aim 1 and Tables 6.7, 6.8 and 6.9 are of relevance to this section.

Research aim 1 was to investigate the nature of the statistical *interrelationships* between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness) as manifested in a sample of respondents employed in a call centre environment.

6.4.3.1 *The relationship between emotional intelligence, sense of coherence and burnout*

Table 6.7 is of relevance to this section.

All the wellness-related attributes were significantly related. The results suggest that the participants possessed both a high sense of coherence and emotional intelligence. A negative association was found between perception of emotions and exhaustion. Research conducted by Iqbal and Abbasi (2013) reveals that individuals who possess the ability to deal with emotions and emotional information are able to control burnout. The positive correlation between emotional intelligence and professional efficacy suggest individuals use emotion and emotional knowledge to achieve a feeling of competence, efficacy and achievement (Iqbal & Abassi, 2013).

However, negative associations were found between burnout and sense of coherence, suggesting that the call centre participants may develop burnout as a result of stressful work situations. Burnout symptoms may be found in individuals with a weak sense of coherence. The above results are consistent with research conducted by Viljoen (2012), who found that individuals with a weak sense of coherence did not possess the ability to apply relevant coping strategies and were more likely to suffer from burnout. An increase in work demands may suggest a low sense of coherence. However, those participants who achieved high scores on sense of coherence may benefit from optimal levels of demands because they are able to capitalise on their available personal resources such as sense of coherence and manage the demands effectively (Johnston et al., 2013; Viljoen, 2013). According to research conducted by

Johnston et al. (2013), a sense of coherence provides a foundation for successful coping and modifies burnout, while a sense of coherence also helps to improve sense making of events, to appraise whether the resources available are adequate to deal with events and to increase feelings of control.

These findings are consistent with those of Harry (2011), who found that individuals whose sense of coherence is weak are prone to burnout. It may be possible for the participants to experience burnout but the participants who were able to regulate their emotions were found to be healthier as they were able to perceive and appraise their emotional state and this, in turn, may lead to lower burnout levels (Alavinia & Ahmadsadeh, 2012).

6.4.3.2 The relationship between career adaptability and hardiness

Table 6.8 is of relevance in this section.

All the resiliency-related behavioural capacities were significantly related. The results suggest that those participants who perceived themselves as being able to exercise some form of control over their careers and displayed curiosity with regard to their careers, believed that they exerted some sort of influence over their vocational future. These participants appeared to use self-regulation strategies, thereby increasing their personal control while also displaying high levels of curiosity in terms of their vocational future. The results are consistent with research conducted by Ferreira (2012), which revealed that individuals who were concerned about and in control of their vocational futures were adaptive, proactive individuals who displayed curiosity and who explored themselves and future scenarios. In addition, they were also confident about pursuing their aspirations.

The study found negative associations between career adaptability and challenge. This suggests that even those participants who were in control and displayed curiosity with regard to their futures may find difficult situations a challenge. Instead of thriving in and overcoming stressful events, the participants may not successfully draw strength from difficulties, thus implying that they may become demotivated. However, high scores on commitment and control tended to indicate an ability to alleviate the negative effects of stress, which can be viewed as a collection of personality characteristics that function as flexible resources during encounters with

demanding life events. These results are consistent with the findings of Ferreira (2012), which revealed individuals view stressful events as meaningful and interesting and perceive stressors as changeable.

6.4.3.3 *The relationship between the wellness-related dispositional attributes and resiliency-related behavioural capacities*

Table 6.9 is of relevance in this section.

The wellness-related dispositional attributes significantly relate to the resiliency-related behavioural capacities construct of career adaptability. The results suggest the participants were emotionally intelligent as regards their careers. It emerged individuals with a high level of emotional functioning may also exhibit adaptive functioning in the domain of career adaptability. These results are consistent with research conducted by Yu-Chi (2011), who found that individuals with a high level of emotional intelligence are generally aware of and manage their emotions in terms of retaining a positive mental state. In addition, it would appear that individuals who have the willingness to manage their own emotions also have the motivation and the willingness to plan for a vocational future.

With regards to sense of coherence and career adaptability, the results suggest that the participants with a high sense of coherence were able to comprehend and engage in the jobs they carry out. According to research conducted by Barnard (2013), sense of coherence is regarded as a source of resilience in life, and enables individuals to cognitively comprehend their environment as both structured and predictable. Meaningfulness is the motivational aspect of a sense of coherence and enables individuals to engage in life's demands and spend effort on their vocational future. The above results are consistent with research conducted by Viljoen (2012), who found that a sense of coherence is directly related with successful living, high performance levels at work and career effectiveness. Career effectiveness includes career concern, career control, career curiosity, career cooperation and career confidence.

The results also suggest the participants were experiencing high levels of exhaustion and cynicism in terms of their career adaptability. It would appear that high levels of concern, control and confidence relate to lower levels of exhaustion, while high levels of control and confidence

relate to lower levels of participants' cynicism. The results further suggest that high levels of professional efficacy increased the participants' career adaptability resources. These findings are consistent with the research conducted by Lent and Schwartz (2012), in which the negative correlation between burnout and career adaptability appeared to indicate individuals who are not engaged and involved in the work they do and they exhibit a callous and detached response to various aspects of the work.

The wellness-related dispositional attributes were significantly related to the resiliency-related behavioural capacities construct of hardiness. However, negative associations were observed between burnout and overall hardiness. The results suggest the participants were experiencing high levels of exhaustion and cynicism in terms of their hardiness, while high levels of professional efficacy suggest increased hardiness resources. Research conducted by Gito, Ihara and Ogata (2013) suggests that individuals who are not resilient will not necessarily suffer from high levels of stress. These results are consistent with research conducted by Alarcon (2009), who found that hardiness yielded a negative relationship with burnout. This, in turn, indicates that hardy individuals are likely to perceive difficult work situations as challenges and not as threats. In addition, hardiness influences problem-focused coping, which implies that hardy individuals are likely to manage the work environment in order to reduce stressors.

Positive associations were found between perception of emotion, managing own emotions, managing others' emotions and utilising emotion, and overall hardiness. According to research by Pillay et al. (2013), individuals with a high level of emotional intelligence are both aware of their own emotions and they know how to manage their emotions. In addition, sensitivity to others will sustain motivation and enhance intuitiveness (Jain, 2012). This, in turn, suggests that individuals who possess a strong sense of hardiness will be able to alleviate the negative effects of stress (Ferreira, 2012).

Positive associations were observed between manageability and meaningfulness and overall hardiness. This suggests that participants with a high sense of coherence are also able to make cognitive sense of the stimuli emanating from the environment and may then develop the hardiness that will enable them to view potentially stressful situations as meaningful, interesting and manageable (Viljoen, 2012).

6.4.4 Empirical research aim 2: Interpretation of the canonical correlation results

Research aim 2, Tables 6.10 and 6.11 and Figure 6.1 are of relevance to this section.

Research aim 2 was to assess the nature of the overall statistical relationship between the wellness-related dispositional attributes construct as a composite set of independent latent variables (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities construct as a composite set of dependent latent variables (career adaptability and hardiness).

Overall, the results suggests that the wellness-related dispositional attributes, in particular managing others' emotions, perception of emotion, utilising emotion, meaningfulness, manageability, exhaustion, professional efficacy and cynicism, contributed significantly in explaining the participants' resiliency-related behavioural capacities, especially concern, control, confidence, hardiness, commitment, control and challenge. The ability to manage others' emotions and perceptions of emotions describe the participants' social intelligence in terms of the ability to observe one's own and others' emotional states, motives and behaviours, and to act positively in relating to others on the basis of these observations. According to Goleman (1998), social awareness may be described as the effective handling of interpersonal and intrapersonal relationships and thereby eliciting desirable responses from others.

The results further suggested that meaningfulness and manageability positively influenced the participants' career adaptability and hardiness. This describes the participants' personal way of thinking and acting with an inner trust that enabled the participants to identify, benefit and reuse their resources, in particular, meaningfulness and manageability. This, in turn, implies the participants' ability to feel in charge of their own destiny and to have the confidence both to overcome stressors and to deal with the demands imposed by stimuli. The participants were able to reflectively regulate their emotions in believing that life's demands are worthwhile and meaningful enough to engage with and to expend effort on. Individuals will also have the perception that they possess adequate resources with which to manage life's demands (Barnard, 2013; Jain, 2012; Viljoen, 2012) and this, in turn, will enhance both their hardiness and their career adaptability.

It was also observed that burnout negatively influenced career adaptability and hardiness, thus implying that burnout may develop in response to stressful work situations. According to Johnston et al. (2013), burnout is clearly associated with the enduring qualities of the individual. This implies that a high level of sense of coherence, emotional intelligence, career adaptability and hardiness may act as a buffer against burnout.

Overall it would appear from the findings that increasing the participants' emotional intelligence, sense of coherence, career adaptability and hardiness may assist them to manage their burnout levels proactively and, thereby, enhance their resiliency.

6.4.5 Empirical research aim 3: Interpretation of the multiple regression results

Research aim 3 and Tables 6.12, 6.13, 6.14, 6.15, 6.16, 6.17 and 6.18 are of relevance in this section.

Research aim 3 was to assess whether the variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) positively and negatively predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).

6.4.5.1 *Emotional intelligence as predictor of career adaptability (CA)*

Table 6.12 is of relevance in this section

The results showed that perception of emotions, managing own emotions, managing others' emotions and utilising emotions significantly and positively predicted career adaptability (concern, control, curiosity and confidence). The results also suggest that emotional intelligence is important in explaining career adaptability. Those participants who were emotionally intelligent were more likely to exert some form of influence and control over their vocational future, while they would also be more likely to be optimistic. This also implies that individuals who display curiosity about their possible self and social opportunities are more likely to increase their exploration behaviours. According to research conducted by Coetzee and Schreuder (2011), emotional intelligence relates positively to less dysfunctional career thinking.

6.4.5.2 *Sense of coherence as a predictor of career adaptability*

Table 6.13 is of relevance in this section.

Overall, the results indicated that meaningfulness, manageability and comprehensibility positively predicted career adaptability (concern, control, curiosity and confidence). The results suggest that a high sense of coherence – a resilience resource – will more likely enhance the self-regulatory and psychosocial strengths, as well as the resiliency capacities that are embedded in an individual's career adaptability (Savickas & Porfeli, 2012).

6.4.5.3 *Burnout as predictor of career adaptability*

Table 6.14 is of relevance in this section.

The results revealed that professional efficacy positively predicted career adaptability (concern, control, curiosity, cooperation and confidence). This result implies that the individuals in the study may not have reduced feelings of efficacy and detachment towards their careers. A high level of professional efficacy will more likely have increased the career adaptability resources of individuals and reduced individuals' feeling of incompetence (Maslach & Leiter, 2008). Research conducted by Maggiori, Johnston, Krings, Massoudi and Rossier (2013) revealed that adaptability resources were positively associated with general wellbeing.

However negative associations were found between exhaustion and career adaptability (curiosity, cooperation and confidence). This suggest that individuals can experience a lack of energy both mental and emotional, which can lead to employees feeling they do not have the necessary resources available to acquire the attitudes, competencies and behaviours that individuals use to fit themselves into careers that suit them (De Beer, Pienaar & Rothmann, 2012).

6.4.5.4 *Emotional intelligence as predictor of hardiness*

Table 6.15 is of relevance in this section.

The results revealed that managing own emotions positively predicted hardiness (commitment, control and challenge). A higher level of managing own emotions is associated with a higher level of effective problem solving, which enables individuals to develop a multitude of problem-solving perceptions. Individuals who display a high sense of managing own emotions are more likely to have the ability to control impulsive feelings and behaviours and manage their emotions in a healthy way by taking initiatives and follow through with commitment and adapting to changing circumstances (Jain, 2012). Yu-Chi (2011) maintained that a high level of hardiness enables individuals to interpret stressful events as less threatening and more controllable than would otherwise have been the case. Research conducted by Ferreira (2012) revealed that individuals who manifest strong feelings of commitment, control and challenge have higher levels of resiliency. When faced with difficulties such individuals are likely to feel capable of acting effectively on their own.

However, the results suggest negative associations between managing other's emotions and control-powerlessness. These results suggest the participants may not likely to have the ability to understand others and relate with them which can lead to the inability to cope with demands (Jain, 2012; Yu-Chi, 2011). These individuals may experience low levels of control which suggest they may not be able to manage their lives effectively and take responsibility for their own learning and development (Latif, 2010).

The results further show negative associations between utilising emotions and commitment-alienation and challenge-threat, this suggests that call centre agents may not likely have the ability to facilitate thought, intellectual growth and problem –solving (Jain, 2012; Yu-Chi, 2011). This may lead to participants not becoming deeply involved in their lives, such an attitude might likely facilitate the unwillingness to expend extra time and effort to meet goals. Individuals may also lower their performance by considering stressfull situations as demanding and intimidating (Gryn, 2010; Latif, 2010).

6.4.5.5 *Sense of coherence as predictor of hardiness*

Table 6.16 is of relevance in this section.

The results further suggest that sense of coherence (manageability and meaningfulness) significantly predicted hardiness (commitment, control and challenge). Sense of coherence is understood to represent an autonomous personal resource capable of contributing directly to subject wellbeing (Sairenchi et al., 2011). The study results suggest that, individuals who feel they are capable of coping with difficult and demanding situations and when these demands are worthy of investment, more likely to identify emotionally and expend effort on handling these demands, displaying a strong sense of coherence coupled with a high level of commitment. Individuals with high levels of control and challenge are more likely to view situations as meaningful and to perceive stressors as changeable, and also to regard change as a normal aspect of life instead of as a threat. These findings are confirmed by the research conducted by Ferreira (2012).

6.4.5.6 *Burnout as predictor of hardiness*

Table 6.17 is of relevance in this section

The results suggest a negative relationship between exhaustion and cynicism and commitment-alienation and control-powerlessness. These results suggest that individuals in call centres who are prone to depletion of energy and cynical attitudes toward call centre work (Harry, 2011), would more likely to have lower hardi-commitment, and a lower tendency to involve themselves in activities in life and a lower general interest and curiosity about things and other people (Kardum et al., 2012). The results further suggest that call centre agents have a tendency to experience low levels of energy and resources and decreased mental-resilience. This results in individuals' reflecting an indifference towards work, which can lower a participants hardi-control, that can render them powerless in the belief that they cannot influence life's events through own efforts (Kotzé & Lamb, 2012).

Negative associations were also found between professional efficacy and challenge-threat, suggest that individuals more likely have feelings of reduced personal accomplishment towards

the work they do (Johnston et al., 2013). Individuals feel the work as stressful, demanding and intimidating rather than an opportunity of growth (Latif, 2010). The results further suggest a positive relationship between professional efficacy and control-powerlessness, which suggest individuals are more likely to be effective at work which is linked to feelings of personal accomplishment thereby increasing their commitment and control in call centre work.

6.4.6 Empirical research aim 4: Interpretation of the structural equation modelling results

Research aim 4, Table 6.19 and Figure 6.2 are of relevance to this section.

Research aim 4 was to assess the overall statistical relationship(s) between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness) and also to assess the fit between the elements of the empirically manifested structural model and the theoretically hypothesised model.

It emerged from the study results that addressing the cynicism aspect of burnout may likely contribute negatively to the development of the resiliency-related behavioural capacity of hardiness (control and commitment). It was evident that the participants' cynicism or the depersonalisation aspect of burnout is more likely to decrease the perception of control and commitment in stressful times may probably lead to a higher sense of alienation and powerlessness. Cynicism represents the interpersonal context dimension of burnout and refers to negative, callous or excessively detached responses to various aspects of the job (De Beer, Pienaar & Rothmann Jr, 2013). According to research conducted by Harry (2011), mental distancing or detached responses may, in general, be seen as an adaptive coping mechanism in the face of excessive job demands. However, should this coping strategy become habitual then this is dysfunctional and may disrupt job performance.

It would appear that employees who have the ability to manage their own emotions are more likely to possess a sense of emotional self-efficacy and that they exert control over their personal emotions by using a positive mood to enable them to persevere in spite of obstacles, which in turn, according to the results of the present study, contribute to a higher sense of

commitment and control (Latif, 2010). In line with the reasoning of Dahl and Cilliers (2013), it became clear that those participants with a high emotional intelligence will probably be better able to appraise the emotional environment and to generate and direct attention to those emotions that are the most salient in the thought processes required for reasoning and decision making. Research conducted by Yu-Chi Wu (2011) revealed that individuals who have a high emotional intelligence are able to utilise and regulate their own emotions, they are generally aware of their emotions and they maintain a positive mental state – a situation that leads to overall wellness. Managing own emotions is both proactive and problem-focused.

Commitment on the part of the participants enable them to be active, even in uncertain situations, and this, in turn, might enable the individuals in question to be involved rather than be detached. The control aspect relates to the participants striving to exert influence over external outcomes with this fostering resiliency to stress. These findings are in agreement with the findings of Ferreira (2012) which suggest that individuals who manifest commitment and control cope effectively with stress, they are actively involved in their organisations and they view change as a tool for their development. Individuals with high scores on hardiness are more likely to experience organisational commitment because they feel in control and are actively involved in their organisations. On the other hand, cynicism seems to lower sense of control-powerlessness and commitment-alienation, which suggest that individuals who cannot control their demanding work environment are more likely give in and fatalistically accept outcomes which results in individuals not having the power to cope effectively. Cynicism can lower individuals' commitment which suggests that they tend to avoid stressors by alienating and detaching themselves from their work environments.

Overall the findings suggest that the participants who displayed an ability to manage their own emotions more likely to cope with stress as would otherwise have been the case. The findings also suggest that individuals who develop resiliency as a result of a sense of commitment and control over various life domains and who take charge of stressful situations are more likely to lower their chances of experiencing burnout and this, in turn, may lead to better coping mechanisms.

6.4.7 Summary: Empirically manifested psychological coping profile for call centre agents

The variables that were identified in the empirically manifested structural model include specific cognitive, conative, affective and interpersonal behavioural elements that underpin the psychological coping profile. Figure 6.6 provides an overview of the core empirically manifested behavioural elements that underpin the psychological coping profile of call centre agents.

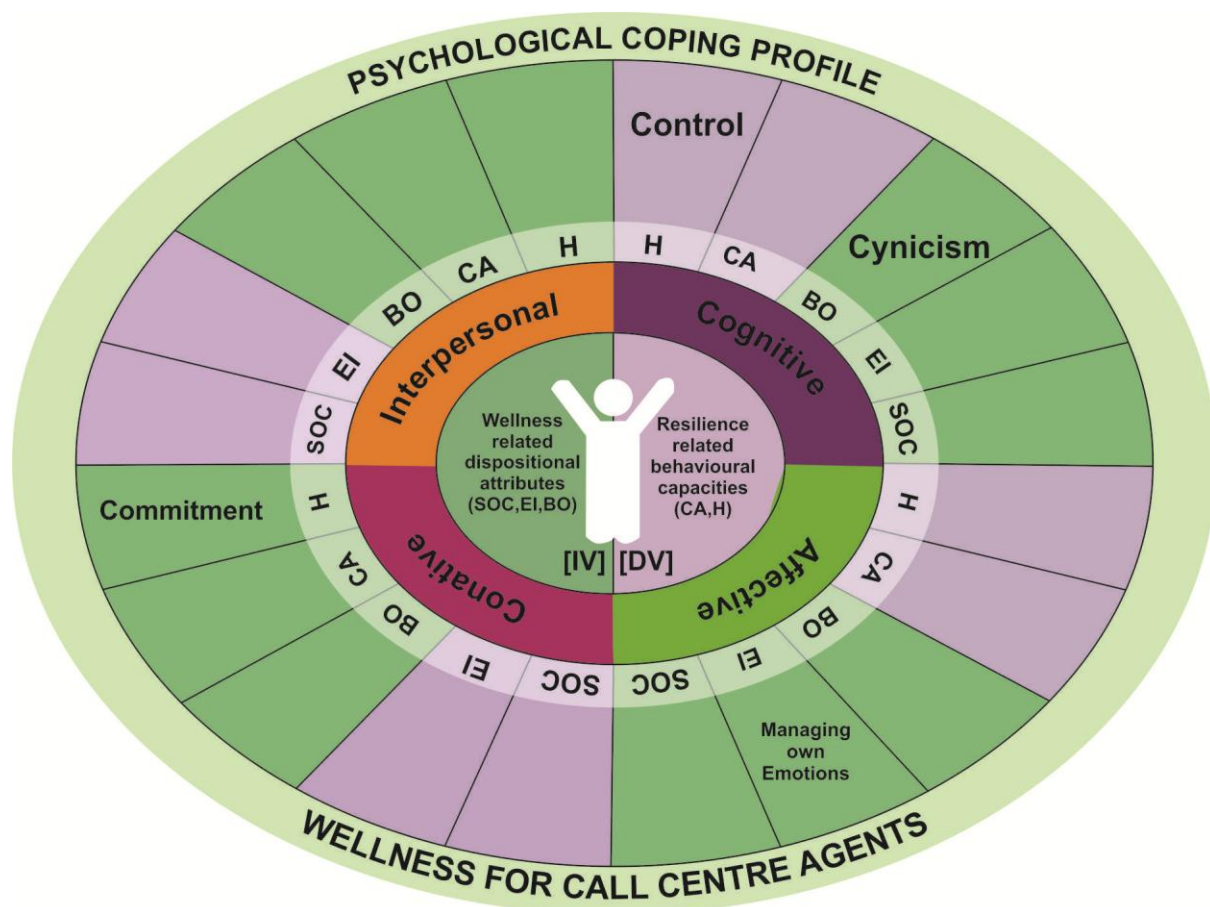


Figure 6.6: Empirical psychological profile

IV – Independent variable; DV – Dependent variable; SOC – Sense of coherence; EI – Emotional intelligence; BO – Burnout; CA – Career adaptability; H – Hardiness

At the **cognitive** level, the psychological coping profile is influenced by the hardiness component of control as a resiliency-related behavioural capacity and which indicates that individuals exert control over/influence life events by changing their perceptions of a given situation. This, in turn, results in the ability to cope. The hardi-control relates to individuals changing an undesirable situation to enable control and, thereby, guiding themselves in the right direction. Control may also be related to managing own emotions in that individuals who possess the ability to recognise and understand their own emotions while they also express these feelings in a non-destructive manner are more likely to be self-directed and self-controlled in their thinking and actions (Ahmadzadeh & Alvina, 2012). As regards cynicism, this involves employees developing a negative attitude to the workplace while, on a cognitive level, they may find it difficult to concentrate and feel more powerless and alienated. According to research conducted by Goldman, Edmonds, Christensen and Kier (2010), hardy individuals tend to believe they are able to control the events that happen to them and they experience less cynicism in relation to their work.

At the cognitive level the psychological coping profile is further influenced by the cynicism component of burnout, as a wellness-related dispositional attribute. The participants in this study perceived a level of reduced accomplishment and are more likely not able to perform their work. In respect of emotional intelligence, the positive effect of managing one's own emotions, commitment and control of stressful situations is likely to diminish cynicism and enable employees to change insensitive thoughts about the work environment (Goleman et al., 2010). According to Nicol (2011), the use of emotion-focused coping is likely to lead to an increase in emotional self-awareness, while the ability to introspect and understand oneself are essential elements of coping rather than distancing or detaching oneself emotionally from the job .

At the **conative** (motivational) level, the psychological coping profile is influenced by the commitment component of hardiness, as a resiliency-related behavioural capacity which likely suggest that individuals commit actively in daily life and have a purpose in life. Commitment in this context refers to a strong belief on the part of individuals in the certainty, significance and interest value of whom they are and what they are doing (Ferreira, 2012). The relationship between hardi-commitment and managing own emotions suggests that individuals who are able to guide their own thinking and actions, are more likely to develop a strong sense of community and commitment and also remaining engaged during difficult times. This mayl lower the levels of

the individuals' cynicism or detachment toward their work. Research conducted by Ferreira (2012) found that hardi-committed individuals tend to involve themselves fully in a number of life situations, including work, family, interpersonal relationships and social institutions.

At the **affective** level the psychological coping profile is influenced by the emotional intelligence component of managing own emotions as a wellness-related dispositional attribute. The individuals' perception of their own abilities has important implications for their relationships and for their ability to function under various conditions. Higher emotional intelligence is associated with higher levels of effective problem-solving with this, in turn, facilitating a multitude of problem-solving perspectives (Shaemi et al., 2011). Managing own emotions in relation to hardiness includes the ability to control stressful situations and to committing oneself to experiencing stressful situations as meaningful. In relation to cynicism, call centre employees would be able to regulate their moods and prevent distress from compromising their ability to think. Employees who are aware of their internal thoughts or feelings tend to feel less detached and cynical in the work they do. According to Kirk et al. (2011), emotional self-efficacy involves affective processes which result in the initiation of relevant behaviour.

In conclusion, the descriptive, correlation and inferential (multivariate) statistics provided a variable-based psychological coping profile that could inform the design of wellness interventions to help individuals to cope. The next section interprets the results in terms of the biographical characteristics variables or person-centered variables that may influence wellness interventions in the light of the psychological coping profile.

6.4.8 Empirical research aim 5: Interpretation of the hierarchical moderated regression results

Research aim 5, Table 6.20, 6.21 and 6.22 and Figures 6.3, 6.4 and 6.5 are of relevance to this section.

Research aim 5 was to assess whether the biographical variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct.

(a) *Age*

Age seemed to significantly moderate the relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities. A significant interaction effect was observed for age in terms of the relationship between the wellness-related dispositional attributes of emotional intelligence (managing own emotions) and the resiliency-related behavioural capacities of hardiness (commitment and control). Age may influence an individual's managing own emotions, which in turn may influence individuals hardiness (control and commitment) specifically in terms of their resiliency-related behavioural capacities in a call centre work environment. It is interesting to note that the relationship between managing own emotions and hardi-commitment and hardi-control was stronger for the younger participants than for the older age group (> 26 years). Young participants who scored high on managing own emotions had also significantly higher levels of hardi-commitment and hardi-control than the older age groups. The young age group (< 25 years) represents the entrance phase into one's career. They may typically have less exposure to the stressors of the call centre environment.

The majority of the participants were aged between 25 to 40 years – the early career life stage, which is characterised by physical energy, health, biological vigour and high instinctive drives (Schreuder & Coetzee, 2011). The results are also consistent with research conducted amongst a sample of participants with an average age of 28 in a call centre by Nell and De Villiers (2004), which confirmed that a high level of managing own emotions is linked to job performance. These results are also consistent with the findings of Latif (2010) that call centres are staffed primarily by young employees, who feel a sense of commitment and control. In other words, such call centre agents feel a sense of purpose and express this sense of purpose by becoming actively involved in life's events rather than being passively involved or running away. The above findings are also in agreement with Kobasa (1979), who found that employees who are more committed and in control have a diminished perception of threats in any given situation and feel that they handle their own destinies.

Overall it would appear that employees between the ages of 25 and 40 are able to manage their own emotions, and that they are committed and in control of life's events.

(b) *Gender*

The results showed that gender significantly moderated the relationship between managing own emotions and commitment-alienation. The results suggest that gender may influence individuals' capacity to manage own emotions, which in turn may influence their resiliency-related behavioural capacities, specifically their hardi-control by means of which suggest they will more likely able to guide their thinking and actions and this, in turn, may lead to commitment in their jobs as well as feelings of excitement and value as regards their work (Latif, 2010).

According to the findings, race and marital status did not reveal any significant effects on the relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities. Previous research in terms of the wellness-related dispositional attributes indicated that sense of coherence and burnout did not have any significant effects on race, which is in agreement with the results from this research (Harry, 2011). Research indicates married individuals have higher levels of sense of coherence and lower levels of burnout than single individuals however, the results in this study revealed no significant differences (Harry, 2011).

Research has indicated that emotional intelligence has positive effects on work performance, married individuals have higher emotional intelligence and burnout is higher among single individuals. However, in terms of race and marital status, results in comparison with this research to previous research within a call centre work environment are limited (Bezuidenhout & Cilliers, 2010; Chang & Chang, 2010; Ortman et al., 2009; Rangriz & Merabi, 2010).

Previous research into race and marital status regarding individuals resiliency-related behavioural capacities namely, career adaptability and hardiness, indicates that being single can influence individuals' career adaptability. Research has also indicated that race did not have an impact on hardiness (Ferreira, 2012). However, very little research exists in a call centre work environment with regards to career adaptability and hardiness, in order to make a comparison with the results from this research to other research.

6.4.9 Empirical research aim 6: Interpretation of the tests for significant mean differences results

Research aim 6 and Table 6.23 and 6.24 are of relevance to this section.

Research aim 6 was to assess whether significant differences exist between the sub-groups of biographical variables that acted as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct, as manifested in the sample of respondents. The results indicated age and gender as significant moderators of the relationship between managing own emotions and control-powerlessness and commitment-alienation. These results compare with the research done by Ferreira (2012), where it was found that there were significant differences with regards to hardiness among males and females. In terms of age these results compare well with the results of Nel and Villiers (2004), done in a call centre work environment, where the majority of the participant's were younger than 28 years of age displayed a higher level of emotional intelligence.

According to the findings, race and marital status did not reveal any significant differences in terms of the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities. Previous research indicates, in terms of race in relation to the wellness-related dispositional attributes, there were no significant difference found for sense of coherence and burnout; which is in agreement to the results of this research (Harry, 2011).

Previous research in terms of the resiliency-related behavioural capacities, indicate that black women and married individuals tend to have higher levels of career adaptability (Ferreira, 2012). Research also indicates that black women in terms of their hardiness are more committed than any other race groups and married individuals are more hardy than single individuals (Ferreira, 2012), however the results of this research cannot be compared with previous research as very little research exists in a call centre work environment with regards to career adaptability. Research conducted in hardiness on a call centre work environment by Latif (2010), reveal black and single participants displayed higher level of commitment and control in call centres, however the results of this research cannot be compared and the results was not in agreement with those found by Latif (2010).

6.4.10 Decisions regarding the research hypotheses

Overall, with the exception of research hypothesis Ha6, the study results provided supportive evidence for the alternative research hypotheses. Table 6.25 summarises the decisions as regards the research hypotheses.

Table 6.25: *Summary of Decisions on Research Hypotheses*

Hypotheses		Supportive evidence provided
H01	There is no statistically significant positive interrelationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness)	No
Ha1	There is a statistically significant positive interrelationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness).	Yes
H02	The wellness-related dispositional attributes construct variate (sense of coherence, emotional intelligence and burnout) does not relate significantly and positively to the resiliency-related behavioural capacities construct variate (career adaptability and hardiness).	No

Ha2	The wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) relates significantly and positively to the resiliency-related behavioural capacities construct (career adaptability and hardiness).	Yes
H03	The variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) do not positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).	No
Ha3	The variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) do positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).	Yes
H04	Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), the elements of the empirically manifested structural model and the theoretically hypothesised model do not show a good fit.	No
Ha4	Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), the elements of the	Yes

	empirically manifested structural model and the theoretically hypothesised model show a good fit.	
H05	The biographical variables (age, gender, race and marital status) do not significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct.	Yes (marital status and race)
Ha5	The biographical variables (age, gender, race, and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct.	Yes (age and gender)
H06	Individuals from various biographical groups (age and gender) do not differ significantly regarding the variables manifested in the best fit model.	Yes
Ha6	Individuals from various biographical groups (age and gender) differ significantly regarding the variables manifested in the best fit model	No

6.5 CHAPTER SUMMARY

This chapter reported on and interpreted the findings of the empirical investigation into the nature of the statistical inter- and overall relationships between the wellness-dispositional attributes (sense of coherence, emotional intelligence and burnout as a composite set of independent variables) and the resiliency related-behavioural capacities (career adaptability and hardiness as a composite set of dependent variables), as manifested in a sample of respondents in a typical call centre work environment.

The following empirical research aims were achieved:

Research aim 1: To investigate the nature of the statistical *interrelationships* between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and

burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness), as manifested in a sample of respondents employed in a call centre environment

Research aim 2: To assess the nature of the overall statistical relationship between the wellness-related dispositional attributes construct as a composite set of independent latent variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct as a composite set of dependent latent variables (career adaptability and hardiness).

Research aim 3: To assess whether the variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).

Research aim 4: Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), to assess the fit between the elements of the empirically manifested structural model and the theoretically hypothesised model.

Research aim 5: To assess whether the biographical variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct.

Research aim 6: To assess whether significant differences exist between the sub-groups of biographical variables that acted as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct, as manifested in the sample of respondents.

The general research aim was also achieved, namely to determine the relationship dynamics between call centre agents' sense of coherence, emotional intelligence and burnout (as a composite set of wellness-related dispositions, and career adaptability and hardiness (as a composite set of resiliency-related behavioural capacities), and whether an overall

psychological coping profile can be constructed to inform employees wellness practices in a multicultural call centre context. The research also investigated whether the biographical characteristics (age, gender, race and marital status) of call centre agents significantly moderate the relationship between the wellness-related dispositional attributes and the resiliency-behavioural capacities.

Chapter 7 addresses empirical research aim 7, namely, to formulate recommendations for organisational wellness practices in the call centre environment based on the findings of this research project. The chapter also discusses the conclusions and limitations of the study and offers recommendations for both practice and future research.

CHAPTER 7: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The aim of this chapter is to discuss the conclusions and the limitations of the study and to make recommendations for wellness practices in the call centre work environment.

7.1 CONCLUSIONS

The following conclusions were drawn regarding the literature review and the empirical investigation.

7.1.1 Conclusions regarding the literature review

The general aim of this research study was to determine the relationship dynamics between sense of coherence, emotional intelligence and burnout (as a composite set of wellness-related dispositions) of call centre agents and their career adaptability and hardiness (as a composite set of resiliency-related behavioural capacities), and to determine whether it would be possible to construct an overall psychological coping profile to inform employee wellness practices in a multicultural call centre context. The research study also aimed to investigate whether the biographical characteristics (age, gender, race and marital status) of call centre agents significantly moderated the relationship between the wellness-related dispositional attributes and the resilience behavioural capacities.

Conclusions were drawn about each of the specific literature aims.

7.1.1.1 First aim: To conceptualise coping behaviour and wellness in a call centre environment within the context of the contemporary world of work

The first aim, namely, to conceptualise coping behaviour and wellness in a call centre environment within the context of the contemporary world of work was achieved in chapter 2 (Meta-theoretical context of the study on coping and wellness in a call centre environment).

The following conclusions were drawn:

- Call centres are characterised by high staff turnover rates, absenteeism, constant monitoring, routine and monotonous work and poor pay. Call centre work may be regarded as a prime example of the 21st century career, which is characterised by uncertainty and frequent transitions. Call centre careers are typical of protean and boundaryless careers in which individuals are forced to control their own destiny in engaging in frequent change, self-interventions, autonomy and self-directedness in order to achieve psychological success (Choi et al., 2012).
- Coping may be viewed as a constantly changing, cognitive and behavioural effort designed to manage specific external and/or internal demands that are exceeding the resources of individuals. According to Akanji (2012) and Devi (2012), coping involves how an individual perceives a situation – either as a challenge or a threat – and the appraisal that is initiated by the individual in order to cope. Coping includes cognitive and rational coping in which individuals adopt certain behaviours so as to alleviate stress (Gilbert et al., 2010; Latif, 2010; Park & Defrank, 2010).
- Sense of coherence in the context of a call centre environment may be regarded as an autonomous, personal resource which individuals apply in order to enhance their resilience in coping with the stressors in a call centre environment (Harry, 2011).
- Emotional intelligence assists individuals in the call centre work environment to understand their reactions to different stressors and this, in turn, may adaptively guide them in the coping process (Jain, 2012).
- Burnout affects individuals who have experienced stress over time. However, they would be less inclined to burnout if they adopted positive coping behaviour. Research reveals that individuals who apply direct coping styles experience lower levels of burnout as compared to those who do not apply such coping styles (De Lange et al., 2010; Jordan et al., 2010; Lee & Choi, 2010).

- Career adaptability is viewed as a coping response to the behaviours which are required if an individual is to handle the career task he/she may be faced with (Savickas & Porfeli, 2012). Career adaptability is an important construct to consider in terms of coping behaviour because it relates directly to resiliency and career satisfaction (Coetzee & Esterhuizen, 2010).
- Hardiness is viewed as having a positive influence on health and wellbeing. In terms of hardiness, a transformational coping style is adopted which may be regarded as optimistic as it transforms stressful events into less stressful events (Ferreira, 2012).
- There are individual differences with regard to coping. Not all people who are subject to stress react in the same way (Akanji, 2012) and individuals may differ in terms of age, gender, race and marital status. An individual's reaction to stress depends on their physiological, psychological and social disposition (Akanji, 2012; Li et al., 2012).
- Employee wellness is linked to coping. Research has shown that workplace stress affects health and wellness, with organisations experiencing the effects of stress in the form of absenteeism from work, high staff turnover and low productivity (Brand-Labuschagne et al., 2012). Wellness interventions create an awareness of wellness issues which may lead to increased mental wellness, energy and life and job satisfaction. In other words, wellness in employees may influence the wellness of organisations and vice versa (Cilliers, 2011; Sieberhagen et al., 2011).

7.1.1.2 *Second aim: To conceptualise the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness) by means of theoretical models in the literature*

The second aim, namely, to conceptualise the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness) by means of theoretical models in the literature, was achieved in chapter 3 (wellness-related dispositional attributes) and in chapter 4 (resiliency-related behavioural capacities).

The following conclusions were drawn:

- The wellness-related dispositional attributes (sense of coherence and emotional intelligence) may be regarded as personal strengths that may assist individuals in stressful work environments, such as call centres, these personal strengths focus on developing the positive aspects of human behaviour (Mendes & Stander, 2011). These wellness-related dispositional attributes may be recognised as those resources that optimise the potential of human capital (Diener et al., 2010).
- A strong sense of coherence is related to lower ratings of stress and it may act as a buffer against burnout. Individuals with a strong sense of coherence will more likely experience less exhaustion and depersonalisation than those with a less well-developed sense of coherence, although they are also likely to be challenged by work (Harry, 2011; Harry & Coetzee, 2011; Marx, 2011; Moksnes et al., 2014; Saimench et al., 2011).
- Individuals who have higher levels of emotional intelligence are more likely to perform well in the workplace and to cope with stress. There is a strong link between emotional intelligence and psychological wellness (Feldman, 2011). Emotional intelligence helps to diminish burnout when chronic stress is experienced while it also assists in increasing the emotional coping resources which benefit long-term health and wellness (Görgens-Eckermans et al., 2012).
- Burnout has been known to reduce with age as it would appear that individuals learn to handle burnout more effectively as they age (Alavinia & Ahmadzadeh, 2012).

7.1.1.3 *Third aim: To conceptualise the nature of the theoretical relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness) and explain this relationship in terms of an integrated theoretical model*

The third aim, namely, to conceptualise the nature of the theoretical relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the resiliency-related behavioural capacities (career adaptability and hardiness) and explain this relationship in terms of an integrated theoretical model was achieved in chapter 4 (resiliency-related behavioural capacities).

The following conclusions were drawn:

At a **cognitive** behavioural level coping may be influenced by an individual's sense of coherence (comprehensibility, manageability and meaningfulness), emotional intelligence, (perception of emotions) and burnout (professional efficacy and cynicism).

At an **affective** behavioural level coping may be influenced by an individual's career adaptability (confidence), burnout (exhaustion) and emotional intelligence (managing own emotions).

At a **conative** behavioural level coping may be influenced by an individual's career adaptability (curiosity) and hardiness (commitment, challenge).

At an **interpersonal** behavioural level coping may be influenced by an individual's career adaptability (concern) and emotional intelligence (managing others' emotions).

7.1.1.4 *Fourth aim: To propose a hypothetical theoretical psychological coping profile for call centre agents based on the theoretical relationship dynamics between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness)*

The fourth aim, namely, to propose a hypothetical theoretical psychological coping profile for call centre agents based on the theoretical relationship dynamics between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness) was achieved in chapter 4 (resiliency-related behavioural capacities).

The following conclusions were drawn:

- It is essential that the implications of a psychological coping profile for call centre agents not be overlooked, as an understanding of individuals' wellness-related dispositional attributes and resiliency-related behavioural capacities may inform wellness practices which are viewed as strategies that are intended to promote the wellbeing of employees (Sieberhagen et al., 2011).
- Not addressing the wellness of employees may result in organisations incurring costs because of high staff turnover rates and absenteeism. These, in turn, mean that organisations incur increased staffing, recruitment and training costs (Siebenhagen et al., 2011).
- Call centres may benefit from wellness practices that increase employee wellbeing and reduce absenteeism, staff turnover rates and health care costs while enhancing performance and productivity (Consiglio et al., 2013).

7.1.2 Conclusions regarding the empirical study

The study was designed to carry out the following seven major tasks:

1. To investigate the nature of the statistical *interrelationships* between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness), as manifested in a sample of respondents employed in a call centre environment. This was achieved by empirically testing research hypotheses H01 and Ha1.
2. To assess the nature of the *overall* statistical relationship between the wellness-related dispositional attributes construct as a composite set of independent latent variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct as a composite set of dependent latent variables (career adaptability and hardiness). This was achieved by empirically testing research hypotheses H02 and Ha2.
3. To assess whether the variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness). This was achieved by empirically testing research hypotheses H03 and Ha3.
4. Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), to assess the fit between the elements of the empirically manifested structural model and the theoretically hypothesised model. This was achieved by empirically testing research hypotheses H04 and Ha4.
5. To assess whether the biographical variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional

attributes construct and the resiliency-related behavioural capacities construct. This was achieved by empirically testing research hypotheses H05 and Ha5.

6. To assess whether significant differences exist between the sub-groups of the biographical variables that acted as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct, as manifested in the sample of respondents. This was achieved by empirically testing research hypotheses H06 and Ha6.
7. To formulate recommendations for organisational wellness practices in the call centre environment and for future research. This task is addressed in this chapter.

7.1.2.1 First aim: To investigate the nature of the statistical interrelationships between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness) as manifested in a sample of respondents employed in a call centre environment.

The empirical results provided supportive evidence for research hypothesis Ha1. The following overall conclusion was drawn in this regard:

Conclusion: The wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) of individuals are significantly related to their resiliency-related behavioural capacities (career adaptability and hardiness).

Based on the significant relationships found between the participants' wellness-related dispositional attributes and resiliency-related behavioural capacities, the following specific conclusions may be drawn:

- Participants' who are more emotionally intelligent are more likely to understand emotions and emotional knowledge and to reflectively regulate emotions in order to promote emotional and intellectual growth.

- Emotionally intelligent participants who have a high sense of coherence are able to generate the thought processes that are required for reasoning and decision-making, thereby increasing resiliency, for example, within a call centre work environment.
- A high sense of coherence indicates the ability to comprehend the environment as structured and predictable and this, in turn, has a direct effect on health and wellness.
- High burnout levels as a result of stressful work conditions may lower a participants' sense of coherence.
- A sense of coherence may modify burnout and provide a foundation for successful coping. Individuals, for example call centre agents, who are concerned about their vocational future are often optimistic and hopeful.
- Individuals, for example call centre agents, who score high on hardiness are able to appraise stressors and this, in turn, limits the negative arousal experiences.
- Individuals, for example call centre agents, who reveal a sense of commitment invest effort in their work and accept the experiences as challenges instead of threats.
- Individuals, for example call centre agents, who are able to use self-regulatory strategies to adjust to the needs of the various work settings are able to exert some degree of influence and control over their vocational future.
- Individuals within a call centre work environment display a strong level of confidence in terms of their aspirations and objectives, even when faced with obstacles and barriers.
- Individuals within a call centre display a high sense of hardiness which is considered as a resistance resource when encountering stressful situations.

- Participants' who manage their own emotions, manage others' emotions, possess a perception of emotions and utilise emotions are generally aware of their emotions and this, in turn, may lead to the positive management of their vocational futures.
- Participants' who are concerned about their vocational futures may experience high levels of exhaustion which are characterised by a lack of energy and, therefore, an inability to continue to perform in the work environment.
- Participants' tend to be less detached as regards their vocational future but may still display a sense of competence and productivity in their work.
- A high sense of coherence is regarded as a source of resiliency. Participants' within the call centre work environment view themselves as engaging in life's demands and expending effort in terms of their vocational future.
- Emotional intelligence increases hardiness and alleviates the negative effects of stress.
- High burnout levels may lower the hardiness of participants' and this, in turn, may lead to lowering of their resiliency within a call centre work environment. However, individuals who manifest lower resiliency do not necessarily suffer from high stress levels.
- A high level of manageability and meaningfulness may increase the level of hardiness in individuals within a call centre work environment and enable them to view potentially difficult situations as both meaningful and manageable.

7.1.2.2 *Second aim: To determine the overall statistical relationship between the wellness-related dispositional attributes construct as a composite set of independent latent variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct as a composite set of dependent latent variables (career adaptability and hardiness)*

The empirical results provided supportive evidence for research hypothesis Ha2. The following overall conclusion was drawn in this regard.

Conclusion: The wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) of individuals are significantly positively and negatively related to their resiliency-related behavioural capacities.

- A strong perception of emotions implies that such individuals possess the ability to understand emotions and emotional knowledge and to reflectively regulate their emotions in order to promote emotional growth.
- If individuals are able to manage their own emotions, this guides their thinking and actions. A sense of coherence indicates that individuals who possess this resource believe life demands are sufficiently worthwhile and meaningful to engage with and to expend effort on. They also have the perception that they possess enough resources to manage life demands and this, in turn, may enhance hardiness and career adaptability.
- Burnout may develop in stressful working conditions such as a call centre work environment. However, a high sense of coherence, emotional intelligence, hardiness and career adaptability may assist in preventing burnout.

7.1.2.3 *Third aim: To assess whether the variables of the wellness-related dispositional attributes construct (sense of coherence, emotional intelligence and burnout) positively and significantly predict the resiliency-related behavioural capacities construct variables (career adaptability and hardiness).*

The empirical results provided supportive evidence for research hypothesis Ha3. The following overall conclusion was drawn in this regard.

Conclusion: The wellness-related dispositional attributes of individuals positively and significantly predict their resiliency-related behavioural capacities.

- Emotional intelligence plays an important role in explaining hardiness in individuals. Individuals who possess the ability to manage their own emotions are more likely able to influence their hardi-control. This, in turn, is viewed as an important resource in assisting individuals to cope better as a result of a sense of control and hardi-commitment in terms of which individuals use all their emotional resources to cope with excessive workload.
- Emotional intelligence is important in explaining career adaptability, individuals who are emotionally intelligent tend to exert some form of control and influence over their vocational future while displaying curiosity about themselves and social opportunities and, thus, increasing their exploration behaviours.
- As a resiliency resource, a high sense of coherence strengthens the self-regulatory and psychosocial strengths which are embedded in an individual's career adaptability.
- Levels of exhaustion are reduced in individuals who are concerned, curious and confident and who exercise control over their vocational future.
- Emotional intelligence is associated with high levels of affective problem solving which, combined with a high level of hardiness, may likely enable individuals to interpret stressful events as less threatening and more controllable.

- When individuals feel they are capable of coping with difficult and demanding situations and that the demands posed by such situations are worthy of investment, then the individual are more likely able to expend effort coupled with a high level of commitment, control and challenge and this may lead individuals to view situations as meaningful and perceive stressors as changeable and change as a normal part of life rather than as a threat.

7.1.2.4 Fourth aim: Based on the overall statistical relationship between the wellness-related dispositional attributes construct and its variables (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities construct and its variables (career adaptability and hardiness), to empirically assess the fit between the elements of the empirically manifested structural model and the theoretically hypothesised model

The empirical results provide supportive evidence for research hypothesis Ha4. The following overall conclusion was drawn in this regard:

Conclusion: The wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) of individuals and their resiliency-related behavioural capacities (career adaptability and hardiness) constitute a psychological coping profile that may be used to inform organisational wellness practices. The psychological coping profile includes cognitive, affective and conative behavioural elements that must be considered in the design of organisational wellness practices.

- At a cognitive behavioural level organisational wellness practices may be informed by the wellness-related dispositional attribute of burnout (cynicism) and by the resiliency-related behavioural capacities construct of hardiness (control).
- At a conative behavioural level organisational wellness practices may be informed by the resiliency-related behavioural capacities construct of hardiness (commitment).
- At an affective level organisational wellness practices may be informed by the wellness-related dispositional attribute construct of emotional intelligence (managing own emotions).

7.1.2.5 *Fifth aim: To assess whether the biographical variables (age, gender, race and marital status) significantly moderate the relationship between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct*

The empirical results provided supportive evidence for research hypothesis Ha5. The following overall conclusion was drawn in this regard:

Conclusion: (1) Age moderated the relationship between managing own emotions and commitment-alienation and control-powerlessness repectively. (2) Gender moderated the relationship between managing own emotions and commitment-alienation.

(a) Conclusions relating to the moderating effect of age

- Age significantly moderates the relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities
- Individual's age may influence managing own emotions. Individuals who are younger (≤ 25 years) tend to to understand emotion and emotional knowledge and the ability to regulate emotions in oneself better compared to older individuals (≥ 25 years).
- Age may influence an individual's commitment-alienation and control-powerlessness. Younger individuals (≤ 25 years), tend to display excitement towards work and learning something new compared to older individuals (≥ 25 years). Younger individuals (≤ 25 years) have a higher capability of acting effectively on their own than older individuals (≥ 25 years) in a call centre work environment.

(b) Conclusions relating to the moderating effect of gender

- Gender significantly moderates the relationship between the wellness-related dispositional attributes and the resiliency-related behavioural attributes.
- Gender may influence the individual's managing own emotions, which in turn may impact their hardi-comittment.

- Females are more optimistic, self-motivated and self-conscious and appear to be more socially adept at recognising and responding to changes in the emotional states which implies having the ability to manage one's internal impulses and resources than males.
- Females also exhibit a clear sense of direction, a dynamic approach to demanding situations and a sense of self- belief and involvement in their lives than males.

Based on the findings it may be concluded that, for effective wellness practices, it is vital that organisations take the socio-demographic variable of age and gender into consideration because these variables significantly moderated the relationship between the participants' wellness-related dispositional attributes and their resiliency-related behavioural capacities.

7.1.2.6 Sixth aim: To assess whether significant differences exist between the sub-groups of biographical variables that acted as significant moderators between the wellness-related dispositional attributes construct and the resiliency-related behavioural capacities construct, as manifested in the sample of respondents

The empirical results provided supportive evidence for research hypothesis Ha6. The following overall conclusion was drawn in this regard:

Conclusion: Significant differences existed between age and gender with regard to managing own emotions, hardi-control and hardi-commitment.

- According to the results, race and marital status did not differ between emotional intelligence (managing own emotions), hardiness (commitment and control).

7.1.3 Conclusions regarding the central hypothesis

The central hypothesis of this study stated that the overall relationship dynamics between the call centre agents' sense of coherence, emotional intelligence and burnout (as a composite set of wellness-related dispositions), and career adaptability and hardiness (as a composite set of resiliency-related behavioural capacities) constitute a psychological coping profile that may inform employee wellness practices in a multicultural call centre context. Furthermore individuals of different ages, genders, race and marital status will have different levels of

wellness-related dispositional attributes and resilience behavioural capacities. In view of the fact that the empirical study provided statistically significant evidence to support the central hypothesis – the hypothesis is, therefore, accepted.

7.1.4 Conclusions about the contribution of the study to the field of industrial and organisational psychology

General conclusions were drawn in terms of the literature review, empirical study and staff wellness practices.

7.1.4.1 Conclusions in terms of the literature review

The findings of the literature review contributed to the field of industrial and organisational psychology and, in particular, to the coping and wellness and career development practices of call centre agents. The literature review provided new insights into the way in which wellness-related dispositional attributes of individuals (sense of coherence, emotional intelligence and burnout) and their resiliency-related behavioural capacities (career adaptability and hardiness) are related. The study also contributed new insights by providing relevant information on organisational wellness practices. In addition, the study contributed significantly to the existing literature through the increased insight gained into the way the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) of individuals influence their resiliency-related behavioural capacities (career adaptability and hardiness). Based on the literature review, a theoretical psychological profile was constructed, indicating the cognitive, affective, conative and interpersonal behavioural elements that must be considered in the coping profile of call centre agents.

7.1.4.2 Conclusions in terms of the empirical study

The statistical relationships observed between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness) also provided new knowledge in terms of the psychological coping profile of call centre agents.

The correlational analyses showed that the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) of individuals are significantly related to their resiliency-related behavioural capacities (career adaptability and hardiness), thus confirming that certain behavioural elements relating to the wellness-related dispositional attributes of individuals and their resiliency-related behavioural capacities must be considered in the construction of an overall psychological coping profile for organisational wellness practices. The canonical correlations confirmed the overall relationship between the wellness-related dispositional attributes and their resiliency-related behavioural capacities, and highlighted the key variables that influenced this overall relationship. The multiple regression analysis assisted in identifying the wellness-related dispositional attributes which acted as the best significant predictors of the individuals' resiliency-related behavioural capacities.

Finally, the structural equation modelling analyses enabled the researcher to construct an empirically tested psychological coping profile which may be used in the design of organisational wellness practices. The structural model (empirically tested psychological coping profile) highlighted the cognitive (hardiness-control and burnout-cynicism), affective (emotional intelligence-managing own emotions), and conative (hardiness-commitment) behavioural elements that must be considered in the design of organisational wellness practices. The moderated hierarchical regression analyses and tests for significant mean differences allowed for a person-centred approach to the design of organisational wellness practices, thus complementing the psychological coping variables-centred approach which had been adopted in the correlational and inferential (multivariate) statistical analyses. The statistical analyses enabled the researcher to identify the core behavioural elements (managing own emotions, cynicism, hardi-commitment and hardi-control) and the socio-demographic characteristics of the sample group (age and gender) that are important in the design of organisational wellness practices.

7.1.4.3 Conclusions for the field of industrial and organisational wellness practices

In relation to the wellness-related dispositional attributes and the resiliency-related behavioural capacities, both the literature review and the empirical results have contributed new knowledge to the field of both industrial and organisational psychology and, in particular, to the formulation of a coping profile and the design of wellness practices in a call centre work environment.

The literature review provided considerable insight into the ability of call centre agents to cope in a call centre work environment. The relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities provided new knowledge on the psychological coping profile of employees in call centres. This knowledge may well be used to develop wellness practices for such an environment.

The following conclusion was drawn from the literature review, namely, that practitioners should consider the theoretical models of sense of coherence, emotional intelligence, burnout, career adaptability and hardiness when working in the field of employee wellness, while age and gender moderated the relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities, and in terms of these models, should also be considered.

The results of the empirical study provided new insights into the relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and resiliency-related behavioural capacities (career adaptability and hardiness). These new insights indicate that it would be advisable for organisational wellness practices to take into account the effect of exhaustion of employees and also that they invest in promoting a balance in terms of workload, expected outputs, targets and deadlines. In addition, individuals working in call centres need to understand the effects of exhaustion and the lack of effort recovery on their health.

It is advisable that organisations should attempt to increase the hardiness of their employees by equipping the employees with the necessary resources to enable them to manage their workload (Coetzee & Harry, 2014). Highly committed individuals use emotional resources to cope with excessive workloads. A sense of hardi-control is viewed as an important resource to assist individuals, while hardi-commitment indicates individuals who are committed to themselves and to their work and who experience a sense of control over their lives (Eschleman, Bowling, & Alarcon, 2010).

It is essential that organisations understand the complex process involved in coping with the challenges and demands of career development in the 21st century, especially in a call centre

work environment, and that they assist individuals to recognise their personal strengths and other positive psychosocial resources which are required for adjusting to the changing contextual circumstances which affect their working lives (Coetzee & Harry, 2014).

More specifically, it is recommended that organisational wellness practices should focus on developing both the wellness-related dispositional attributes and the resiliency-related behavioural capacities which were highlighted in the findings of this study as the personal and resiliency resources which may likely increase health and wellbeing. As pointed out by Cilliers (2011) and Sieberhagen et al. (2011), wellness practices may enhance the psychological wellbeing and motivation of individuals and, thus, lead to the positive organisations which are the result of encouraging employees to be proactive in their personal development. In addition, organisations should focus on both the strengths and the needs, specifically taking into account the demographics of its employees in terms of the moderating effects of age and gender which were highlighted in the findings of this study.

7.2 LIMITATIONS OF THE STUDY

The limitations of the study as regards both the literature review and the empirical study are discussed below.

7.2.1 Limitations of the literature review

The literature review was limited to the following: Antonovsky (1987) Orientation to Life Questionnaire (OLQ), Schutte et al. (2007) Assessing Emotional Scale (AES), Maslach (1996) Maslach Burnout Inventory (MBI), Savickas (2010) Career Adapt-abilities Scale (CAAS), and Maddi (1987) Personal Views Survey II (PVS-II). Other models and paradigms were mentioned but not considered in this research because of the scientific and paradigmatic boundaries of the study.

There has been limited research conducted on the relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) construct and resiliency-related behavioural capacities (career adaptability and hardiness). This limitation made it difficult to refer to previous studies during the interpretation of the research findings. The

focus of the previous studies was primarily on the relationship between wellness related-dispositional attributes (sense of coherence and burnout) (Harry, 2011) and not on resiliency-related behavioural capacities (career adaptability and hardiness) as well as on the relationships between wellness-related dispositional attributes and the resiliency-related behavioural capacities, in particular, within a call centre work environment (Harry, 2011).

7.2.2 Limitations of the empirical study

The main limitation of the empirical study was that a larger sample with more representative spread among various age, gender, race and marital status groups would have been preferable. A sample size of 409 is not necessarily large enough, as only three call centres were approached and participation was voluntary, to establish whether there is a definite relationship between the variables of sense of coherence, emotional intelligence, burnout, career adaptability and hardiness. The sample was also limited to predominantly single, employed, black females in their early career development stage in a call centre work environment and, thus, the results could not be generalised to other occupations or to other age, gender, race and marital contexts. In addition, the socio-demographic mix of the sample may have had an effect on the observed results. It is, therefore, recommended that a more representative sample be conducted in the future.

The sample was cross-sectional in nature and, thus, it was not possible to ascertain the causal direction of the relations between the variables. In future studies on the relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and resiliency-related behavioural capacities construct variables (career adaptability and hardiness), researchers should ensure that they obtain larger samples across various age and gender groups in call centres throughout Africa and conduct longitudinal studies to assess the relationship between the variables over time for these groups.

The possible influence of the response distortions associated with self-reports suggest that biases may not be associated with the method alone but rather from the interaction of the nature of the constructed, the approach to the assessment of the construct and the characteristics of the questionnaire respondent. However, in terms of this research study, self-reports were probably the most accurate means of assessment because they involve internal psychological

processes. The burnout scale should also be reversed scored for exhaustion and cynicism in future replication studies. Future studies should also rerun the SEM models to address the concern about possible overfit of the best fit model.

Nevertheless, despite the above limitations, it may be concluded that the study shows promise for further investigation of the relationship between the variables that influence the organisational wellness practices in the African organisational context. The fact that, as a result of the job stress associated with call centre work, and as compared to the younger call centre employees, the older call centre employees often manifest a lower ability to manage their emotions and this can lower their hardiness may, hopefully, stimulate future research initiatives. Such initiatives will hopefully culminate in the introduction of new wellness practices that will help the older call centre workforce to develop the ability to deal effectively with emotions and emotional information and, thus, to control burnout. This may also lead to higher levels of hardi-control and hardi-commitment.

7.3 ETHICAL CONSIDERATIONS

In accordance with the Employment Equity Act 55 of 1998, it was incumbent on the researcher in this study to choose psychological measures that are regarded as valid, fair and reliable to all individuals concerned. The results were also used for research purposes only. All participant information was treated with respect and confidentiality. All measuring instruments, as well as the process involved in gathering the data, followed a valid and reliable procedure. In addition, all the ethical rules and procedures of research as stipulated in the university's Research Ethics Policy were adhered to.

7.4 RECOMMENDATIONS

Based on the findings, conclusions and the limitations of this study, the following recommendations for industrial and organisational psychology wellness practices and also further research are suggested:

7.4.1 Recommendations for the field of industrial and organisational wellness practices

The main aim of the study was to determine the relationship dynamics between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) of individuals and their resiliency-related behavioural capacities (career adaptability and hardiness), and whether it would be possible to construct an overall psychological coping profile which could potentially inform organisational wellness practices in a multi-cultural, African, organisational context. A further aim of the study was to determine whether individuals of different ages, gender, race and marital status differed significantly with regard to their wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and their resiliency-related behavioural capacities (career adaptability and hardiness).

Based on the research findings and the relationships that emerged the following organisational interventions in terms of sense of coherence, burnout and career adaptability and organisational wellness practices are recommended: The findings provided valuable insights in terms of the research aims and highlighted the importance of designing wellness interventions programmes that will strengthen both sense of coherence and emotional intelligence which may help to lower burnout levels. Such interventions will assist individuals to cope with everyday stress (Harry, 2011).

According to research conducted into a call centre by Jacobs and Roodt (2011), reducing job demands would both reduce absenteeism and lower the levels of burnout. Jacobs and Roodt (2011) also highlighted the importance of availing job resources with the subsequent high energy, as high involvement would have a positive effect on call centre agents. Involvement acts as a mediator between job resources and turnover intentions. If the workforce management in call centres determines both workload and work-pace demands effectively this, in turn, may lower the burnout levels of call centres agents. Social competencies are critical to the performance of call centre agents and, thus, proper training would assist in helping employees to adjust and increase job satisfaction (Jacobs & Roodt, 2011). According to Jacobs and Roodt (2011), certain extrinsic incentives improve motivational aspects. For example, incentive schemes and reimbursement for performance strategies may serve as motivators for performance. In addition, the use of internal promotion policies should be encouraged as this

influences commitment (Jacobs & Roodt, 2011). According to research conducted by Harry (2011), strategies should include job redesign, flexible work schedules and goal setting, with job resources being increased through participative management, enhanced social support and team building. Figure 7.1 below, gives an overview of wellness interventions' and recommendations and Table 7.1 provides a summary of the recommendations for organisational wellness practices.

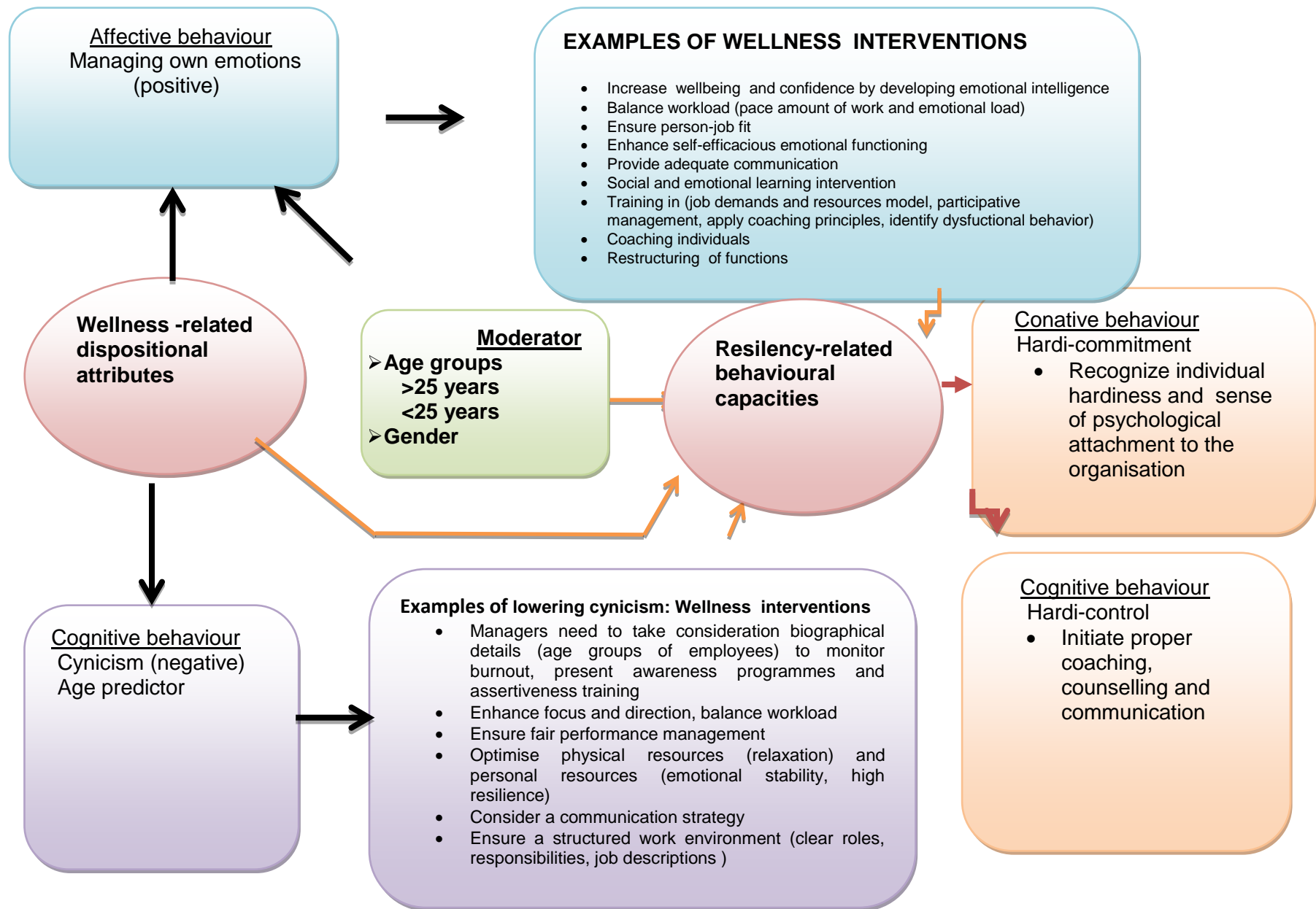


Figure 7.1: Overview of wellness intervention and recommendations

Table 7.1: *Summary of Recommendations for Organisation Wellness Practices*

Behavioural elements	Core conclusions: Empirically manifested variables-based psychological coping profile	Recommended organisational wellness practices for call centre employees
Cognitive	Wellness-related dispositional attributes may be influenced by burnout, and by the resiliency-related behavioural capacities (hardiness)	<ul style="list-style-type: none"> • Organisations need to ensure best practice management that is appropriate to the employee population and work setting. • To lower burnout levels, organisations need to enhance their employees' personal resources, including sense of coherence, emotional intelligence, career adaptability and hardiness, through leave, overtime and after hours incentives, career paths and to formulate a career counselling framework. • Organisations should investigate the reasons for low motivation, job insecurity, poor relationships at work, reciprocity perceptions and diversity difficulties. • Organisations should devise programmes aimed at motivational climates. • Organisations should initiate appropriate coaching. • Organisations should administer appropriate counselling. • Management support and communication are essential. • Continuous evaluation should take place. • A supportive environment should be created.

Behavioural elements	Core conclusions: Empirically manifested variables-based psychological coping profile	Recommended organisational wellness practices for call centre employees
Conative	The resiliency-related behavioural capacities may be influenced by hardiness.	<ul style="list-style-type: none"> Organisations need to recognise the way in which individuals' hardiness relates to their sense of psychological attachment to the organisation. Organisations concerned with employee wellbeing should create work environments in which the commitment, control and challenge of individuals are enhanced, thereby increasing motivation Organisations should create an environment in which skills may be applied so individuals develop the ability to integrate unexpected, stressful events more easily.
Affective	The wellness-related dispositional attribute may be influenced by emotional intelligence.	<ul style="list-style-type: none"> Organisations need to develop training programmes that enable individuals to become more aware of and increase their own emotional intelligence. Organisations need to recognise the role of emotions and their influence on behaviour and to decrease negative thoughts.

Socio-demographic characteristics	Core conclusions: person-centred profile in terms of empirically manifested variables-based psychological coping profile	Recommended organisational wellness practices for call centre employees
Age	Younger individuals display a high level of managing own emotions as compared to older individuals.	<ul style="list-style-type: none"> • Develop adequate training for older call centre agents to enable them to develop the ability to deal effectively with emotions and emotional information as this may help to control burnout. • Social and emotional learning interventions should be introduced for older call centre agents.
	Younger individual's display higher hardi-control as compared to older individuals.	<ul style="list-style-type: none"> • Psychological tests should be implemented to select individuals with high levels of emotional intelligence and psychological wellbeing. • Hardiness training programmes must take into consideration the unique effects of each hardiness component control, which is viewed as an important resource. • Develop hardiness training programmes based on individual characteristics.
	Younger individual seems to have higher hardi-commitment as compared to older individuals.	<ul style="list-style-type: none"> • Hardiness training programmes must take into consideration the unique effects of each hardiness component commitment should be increased in various life domains and within a specific age group. • Organisations should monitor burnout levels on a regular basis and also present awareness programmes on the importance

		<p>of effort-recovery for personal wellness, as well as health and work outcomes.</p> <ul style="list-style-type: none"> • Organisations need to understand stress management and balance in life to assist their employees in coping with both stress and the job demands.
Gender	<p>Females appear better at managing their own emotions than males.</p>	<ul style="list-style-type: none"> • Organisations need to increase wellbeing and confidence by developing confidence by developing emotional intelligence taking into consideration gender.
	<p>Females tend to be more hardi-committed than males.</p>	<ul style="list-style-type: none"> • Hardiness training programmes must take into consideration the unique effects of each hardiness component. Commitment should be increased in various life domains and within a specific gender group.

In short the following recommendations are made:

- Organisations need to recognise the best practices which are required in terms of the employee population and work setting, and it is essential that interventions be adapted to fit the specific context, for example a call centre work environment.
- In order to lower burnout levels, organisations need to enhance the personal resources of their employees, including sense of coherence, emotional intelligence, career adaptability and hardiness through leave, overtime and after hours incentives, career paths and developing a career counselling framework.

- Training should be provided to management with regard to the job demands and job resources models and the implications in terms of employee outcomes.
- Management should determine the workload and work-pace demands as this may lower burnout levels.
- Organisations need to investigate the reasons for low motivation, job insecurity and social networking and diversity difficulties and apply appropriate interventions such as effort-recovery awareness programmes, work-life balance programmes, stress-management programmes and coping skills programmes.
- Organisations need to devise programmes aimed at creating a motivated organisational climate. Continuous evaluation, effectiveness and an assessment of these programmes, are required to ensure individuals remain motivated.
- Coaching, including appreciative enquiry, should be aimed at individuals who are prone to burnout.
- Coaching should be provided for individuals who struggle while a more caring and balanced environment should be created.
- Training should be provided to enable management to recognise dysfunctional behaviour, including anxiety and depression at work, and to apply appropriate counselling.
- Substantial managerial support is essential to generate human and financial capital while effective communication is also required to achieve success.
- Incentives provide a mechanism for individuals to increase their participation in wellness intervention programmes. This may include intrinsic incentives, for example, individuals keep a record of their progress, and extrinsic incentives such as attractive benefits.

- Organisations need to understand how individuals' hardiness is related to their psychological attachment to the organisation.
- Organisations need to understand and recognise the role of emotions and their influence on behaviour and to decrease negative thoughts.
- Organisations should devise adequate training for call centre employees so as to enable them to develop the ability to deal effectively with emotions and emotional information as this may help to control burnout.
- Training in social and emotional learning should be introduced to call centre employees.
- Psychological tests should be implemented to select individuals with high levels of emotional intelligence and psychological wellbeing.
- Hardiness training programmes based on individual characteristics should be developed.
- Hardiness training programmes must take into consideration the unique effects of each hardiness component, including hardi-control and hardi-commitment.
- There should be support and financial counselling for low income earners and sole breadwinners.
- Interventions should be developed that take into account the stressor-strain relationship and also the individual characteristics of the employees in call centres.
- Organisations need to monitor exhaustion levels on a regular basis and present awareness programmes on the importance of effort-recovery.
- Organisations need to recognise individuals who are displaying decreased motivational wellness (high mental distance and/or low work devotion). It is recommended that organisations investigate the reasons for such low motivation, and ensure a purpose and

vision for such individuals and also implement programmes which are aimed at creating a motivational climate. The policies and procedures of the organisation should also aim at the creation of such a climate.

- A comprehensive career counselling framework, which should be based on individual characteristics, must be developed.
- Career counsellors need to recognise individual personality preferences in the management of employability and careers.
- Organisations should take into account biographical factors in terms of employees' career development as such career development should be individualised.

Helping individuals to tap into their wellness-related dispositional attributes is critical for the development of psychological coping resources and must be taken into account in the formulation of organisational wellness practices. Such practices should also help to optimise personal resources, including emotional stability and high resiliency. Knowledge of an individual's resiliency-related behavioural capacities of career adaptability and hardiness in a psychological coping profile would increase the understanding of those behavioural elements that may potentially inform organisational wellness practices as well as to help optimise personal resources and facilitate person-job-fit. Person-job-fit is regarded as the behavioural outcome of the interaction between individuals and the environment and a good-fit leads to positive results for individuals (Lu, Wang, Lu, Du & Bakker, 2014). What this implies is that person-job-fit has significant influence on employee's attitudes. This includes having the right skill and abilities as well as the employees and their job having similar features. The returns from their jobs meet their expectations and demands, which is strongly related to commitment and satisfaction (Lu et al., 2014).

7.4.2 Recommendations for further studies

The findings of the study indicated a need for further research into exploring the relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) of individuals and their resiliency-related behavioural capacities

(career adaptability and hardiness). It is also recommended that further studies address the limitations inherent in this study. The study was limited to a call centre work environment while the sample comprised predominantly early career, black, female participants. Thus, replication studies should be conducted using independent samples representing various age, gender, race and marital status and occupational groups in other occupational contexts.

The study was cross-sectional in nature and, thus, it was not possible to ascertain the causal direction of the relations between the variables. Accordingly, longitudinal studies could also be conducted to assess the influence of the variables measured in this study on wellness practices within organisations.

The use of different methodologies, both qualitative and quantitative, could enhance the understanding of the relationship between the wellness-related dispositional attributes and the resiliency-related behavioural capacities. More variables should also be included in the examination of the relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness).

7.5 EVALUATION OF THE RESEARCH

The research study contributed at three levels to the field of industrial and organisational psychology, namely, the theoretical, empirical and practical levels.

7.5.1 Contribution at a theoretical level

The findings of the study have provided new insights into the way in which the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) of individuals relate to their resiliency-related behavioural capacities (career adaptability and hardiness). The literature review highlighted the importance of considering these constructs in the design of wellness practices. The approach adopted by this study was original as the study integrated these constructs in order to formulate a hypothetical psychological coping profile for call centre agents.

Industrial and organisational psychologists are in the best position to help organisations to understand the relationship between the construct variables wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and the resiliency-related behavioural capacities (career adaptability and hardiness), through the involvement of stakeholders such as employees, human resource practitioners and the managers involved with employee wellness practices.

It is recommended that the insights obtained from these findings, especially the theoretical psychological coping profile and its behavioural elements, be used for organisational wellness practices within a call centre work environment.

7.5.2 Contribution at an empirical level

At an empirical level the research study contributed to the construction of an empirically tested psychological coping profile that may be used to inform organisational wellness practices for employees within a call centre work environment. The proposed psychological profile is a novel contribution to the field of industrial psychology and adds valuable new knowledge and insights to contemporary research on the wellness-related dispositional attributes and resiliency-related behavioural capacities that influence peoples' health and wellness within a call centre work environment in a changing and uncertain occupational world.

The empirically tested psychological profile highlighted the important cognitive, affective and conative behavioural elements that should be considered in organisational wellness practices. Studies into the relationships between the constructs which were relevant to this study are rare, especially within an African context.

This study further pointed out that age and gender act as a moderator of the relationship between the wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and resiliency-related behavioural capacities (career adaptability and hardiness). These results add new knowledge which may inform organisational wellness programmes by taking into consideration biographical information.

7.5.3 Contribution at a practical level

This study proved useful because of the relationships the study found between the independent wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout), and the dependent resiliency-related behavioural capacities (career adaptability and hardiness). The findings of this study will be useful in informing organisational wellness practices designed to promote the wellbeing of call centre agents. In addition, the study suggested practical recommendations for staff organisational wellness practices, based on the literature review and the empirical results.

It is hoped that the study findings will help industrial and organisational psychologists and human resource practitioners to develop a better understanding of the constructs of sense of coherence, emotional intelligence, burnout, career adaptability and hardiness when considering a coping profile that will positively influence the wellness of valuable call centre employees. In addition, the study helped to create an awareness of the fact that individuals in the workplace possess different wellness-related dispositional attributes (sense of coherence, emotional intelligence and burnout) and resiliency-related behavioural capacities (career adaptability and hardiness), and that it is essential that each individual, specifically taking into account different age and gender groups be treated in a manner that is appropriate to them in order to promote coping and wellness.

The study also fostered a realisation of the importance of the way in which the wellness-related dispositional attributes influence the resiliency-related behavioural capacities. The findings of this study provide useful insights for future research in terms of exploring the possibility of preventing the effects of burnout in relation to the coping and wellness of call centre employees, especially female employees. In addition, the research results contribute significantly to the body of knowledge relating to the factors that influence coping and wellness in the African call centre organisational context.

Finally, this research has broken new ground because, to date, there have been no studies conducted on the relationship between sense of coherence, emotional intelligence, burnout, career adaptability and hardiness, especially within a call centre work environment within the African context. The findings provided valuable information for the design of a coping profile and

wellness practices for call centre employees, in particular, black females in the early career stage of their lives.

7.6 CHAPTER SUMMARY

This chapter discussed the conclusions and limitations of the study and made recommendations for practice and further research. The possible limitations of the study were discussed with reference to both the theoretical study and the empirical study. Recommendations for future research were discussed. Finally, a summary of the research was presented, emphasising the extent to which the results of the study provide support in constructing a psychological coping profile for call centre employees in the African organisational context.

In this chapter the final research aim (7) was achieved, namely, to formulate conclusions based on the research findings and to make recommendations for industrial and organisational psychology retention practices, as well as for possible future research based on the findings of this research project.

The next section presents the Research Article. Please note that the requirement is to have a publishable research article as part of the thesis. The article that follows was accepted and published in the *South African Journal of Industrial Psychology*. Harry, N., & Coetzee, M. (2013). Sense of coherence, career adaptability and burnout of early-career black staff in the call centre environment. *SA Journal of Industrial Psychology*, 39(2), 1138, 1-10. <http://dx.doi.org/10.4102/sajip.v39i2.1138>.

RESEARCH ARTICLE

Sense of coherence, career adaptability and burnout of early career black staff in the call centre environment

ABSTRACT

Orientation: The call centre is recognised as a stressful work environment that affects the general wellbeing of call centre agents. The more turbulent context of the 21st century workplace further requires of individuals to use their positive psychosocial capital to stay employable and adaptable.

Research purpose: This study explored whether call centre agents' sense of coherence significantly influences their career adaptability, and whether their burnout levels significantly moderate the sense of coherence - career adaptability relationship. The research also investigated whether age, gender and years of service (as control variables), along with sense of coherence predicted career adaptability.

Motivation for the study: The positive psychological construct of career adaptability and its association with call centre agents' sense of coherence, burnout, age, gender and years of service have not yet been investigated in the call centre environment.

Research design, approach and method: A cross-sectional quantitative survey design was used. The Orientation to Life, Career Adapt-Abilities Scale and Maslach Burnout Inventory General Scale were administered to a non-probability purposive sample of 409 early career black staff employed in three of the largest outsourced financial call centres in Africa.

Main findings: Multiple regression analyses revealed that age, gender and meaningfulness significantly predicted call centre agents' career adaptability and that their burnout levels do not significantly moderate the sense of coherence - career adaptability relationship.

Practical implications: Enhancing call centre agents' sense of meaningfulness will significantly increase their levels of career adaptability, which in turn may result in more positive work attitudes and career wellbeing in the call centre environment.

Contribution: This research is the first to investigate the construct of career adaptability in the call centre environment and can be regarded as adding new knowledge and insights to the wellness and positive psychology literature.

Keywords: burnout, call centre, career adaptability, sense of coherence

Introduction

The call centre environment is recognised as one of the world's most stressful work environments (Harry & Coetzee, 2011; Jacobs & Roodt, 2011). Absenteeism, high turnover rates, constant monitoring and surveillance and the emotional labour required for the occupation are some of the key challenges that call centre agents and managers face on a daily basis (Banks & Roodt, 2011; Borgogni, Consiglio, Allesandri & Schaufeli, 2012; Consiglio, Borgogni, Allesandri & Schaufeli, 2013; Poddar & Madupalli, 2012). These challenges may be compounded by the shifting nature of careers and working in the 21st century world of work. Careers and workplaces have become more chaotic and uncertain in the increasingly turbulent, highly competitive and dynamically changing business environment. Consequently, individuals are required to use their positive psychosocial capital to stay employable and adapt to uncertainty and more frequent career transitions (Avey, Reichard, Luthans, & Mhatre, 2011; Savickas, 2011; Savickas & Porfeli, 2012).

Background

Various changes have been noted in the 21st century world of work. The contemporary workplace witnesses a decrease in stability and security in careers (Ferreira, 2012). Workers are expected to take greater control over their own career development (Lent, 2013). The world of work has become fast paced, more diverse and less predictable for an increasing number of workers (Lent, 2013). The emergence of protean and boundaryless careers implies an erosion of a career with a single employer and involves frequent career changes (Lent, 2013) that, in turn, require greater levels of career adaptability (Savickas, 2011). Career adaptability is an

adaptive resource enabling individuals to cope with career traumas and transitions in stressful and uncertain times (Ferreira, 2012). As a resiliency resource, career adaptability relates to positive behaviour and the individual's capacity to adapt with greater ease to stress and uncertainty in the work environment. Individuals with high levels of career adaptability are generally cognitively and emotionally more ready to cope with the more predictable tasks of preparing for, and participating in the work role, and with the unpredictable adjustments prompted by changes in work and working roles (Savickas & Porfeli, 2012).

Changing employment structures and job tenure suggest that call centres may represent a typical example of the 21st century career (Choi, Cheon, & Feinberg, 2012; Consiglio et al., 2013). Call centres are worthy of investigation because they are seen as a prime example of a stressful work environment that influences the career wellbeing of individuals. Call centres are typically characterised by low pay, low status, high levels of monitoring and little discussion or opportunity for progression (Consiglio et al., 2013). There are limited career opportunities in a call centre and call centre agents are likely to view their own careers in terms of the acquisition of skills transferable to other sectors, or apparently fragmented employment experiences which are characteristic of protean and boundaryless careers (Choi et al., , 2012). A call centre career is generally characterised by short-term contracts (few years of service), call centre vulnerability to shifting markets and client demands that erode the possibility of career-long employment (Choi et al., 2012).

In terms of person characteristics, the call centre environment is typically a source of employment for a younger workforce or individuals in the early stages of their careers and, hence, a few years of service (Latif, 2010). In the African employment equity and affirmative action context, early career stage black employees appear to dominate the workforce in the call centre environment (Harry, 2011). In addition, the call centre job seems to do little to stimulate creativity and flexibility in the call centre agent which may increase levels of stress and boredom. Call centre jobs are often equated to factory jobs or assembly lines based on the Tayloristic principles of job design; lacking skill variety and is often perceived as repetitive in nature (Borgogni et al., 2012, Choi et al., 2012, Perry, Rubino & Witt, 2011). These characteristics of the call centre job may negatively influence the agent's career wellbeing and satisfaction and increase their levels of burnout (Harry, 2011).

Similar to career adaptability, sense of coherence is viewed as a personal resource that acts as a form of resilience to stress and a buffer against burnout experienced in the call centre environment (Harry & Coetzee, 2011). In the context of the present study, sense of coherence and burnout are viewed as wellness-related dispositional attributes. Research provides evidence that sense of coherence positively affects call centre agents' psychological wellbeing whereas burnout negatively influences their wellbeing, especially in an emotionally demanding work environment (Bezuidenhout & Cilliers, 2010). However, there appears to be a paucity of research on how individuals' sense of coherence and burnout relate to their career adaptability. From the research literature, it is further unclear whether the negative aspects associated with individuals' levels of burnout adversely influence the relationship between their sense of coherence and career adaptability (as positive resources of their career wellbeing). It was anticipated that should burnout have a significant moderating effect, wellness interventions in the call centre environment could be suggested to alleviate the adverse effects of burnout in order to optimise call centre agents' sense of coherence and career adaptability, and therefore their resiliency in the call centre environment. There also seem to be a paucity of research on how the person characteristics of age, gender and years of service relate to individuals' career adaptability in the call centre environment.

Research purpose

This study focuses on three constructs that are prominent in the contemporary positive psychology literature, namely sense of coherence (Antonovsky, 1991; Louw, Mayer, & Baxter, 2012; Mayer, 2013), burnout (Boudrias, Morin, & Brodeur, 2012; De Lange, Dikess, & Demerouti, 2010) and career adaptability (Savickas, 2010; Savickas & Porfeli, 2012). Positive psychology emphasises developing and maintaining wellbeing and personal strengths (Wong, 2011). Whilst sense of coherence and career adaptability are regarded as important psychosocial career meta-capacities that positively influence individuals' general career wellbeing and resiliency (Coetzee, 2013; Mayer, 2013; Savickas & Porfeli, 2012; Van Vianen, Klehe, Koen, & Dries, 2012), individuals; burnout is seen to negatively influence their wellbeing, especially in the call centre environment (Harry, 2011). The constructs of sense of coherence and burnout have been extensively researched in the call centre environment (Harry, 2011). However, the notion of career adaptability has not yet been researched in this environment. Moreover, research within the call centre environment was conducted mainly on ways of

preventing and treating undesired states of health (Consiglio et al., 2013; Borgogni, et al., 2012; Perry et al., 2011). According to Akanji, (2012), the field of coping is broadening its scope towards positive striving emotions and searching for meaning in one's life and career. Borgogni et al. (2012) posit that external as well as internal resources are particularly likely to be found in interactionally intense settings such as customer service work. The repetitive and sustained nature of these service interactions not only increases stress levels of agents but also heightens an awareness among workers of the need for obtaining external as well as internal resources in order to cope and thrive in stressful and demanding situations.

This research focuses on the positive aspects and strengths of human behaviour and psychological functioning (Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi, Biswas-Diener, 2010) and the interaction effect of burnout on the relationship between positive psychological strengths. By investigating the relationship between sense of coherence, burnout and career adaptability in the call centre environment, the present research further endeavours to contribute to the wellness and positive psychology literature. More specifically, the research is interested in answering the following research question:

Does call centre agents' level of burnout significantly moderate the relationship between their sense of coherence and career adaptability?

In the context of the present study, age, gender and years of service were treated as control variables. In the light of research showing that the typical call centre agent in the African context is a black individual in his or her early career stage (with only a few years of service) (Harry, 2011), the research is also interested in investigating whether these person characteristics, along with individuals' sense of coherence, significantly predict their career adaptability in the call centre environment. Age, gender and years of service appear to significantly influence individuals' levels of sense of coherence, career adaptability and burnout. Individuals who are older tend to have a higher sense of coherence, with men having stronger sense of coherence than females (Bezuidenhout & Cilliers, 2010). Years of service relate to call centre agents ability to maintain a career within a call centre work environment. Research has shown that individuals in the early stages of their careers (and with fewer years of service) tend to have higher levels of adaptability with women showing higher adaptability than men (Ferreria, 2012). In relation to burnout, younger workers appear to be more prone to experience burnout than older employees

(Bezuidenhout & Cilliers, 2010). However, it is not clear how call centre agents' age, gender and years of service (as control variables) relate to their career adaptability. The research therefore endeavours to also answer the following research question:

Do call centre agents' age, gender, years of service in the call centre and their sense of coherence positively and significantly predict their career adaptability?

Review of the literature

Sense of coherence

Sense of coherence explains how people feel, how they perceive, behave and cope with demanding and challenging (stressful) situations, and how they keep healthy (Louw et al., 2012). As a global life orientation, sense of coherence expresses the extent to which one has a pervasive, enduring and dynamic feeling of coherence, that is, that one's world is ordered, structured and consistent (comprehensible), that situations in life are endurable, manageable or a new challenge, that one's life is meaningful and makes sense on an emotional and not just cognitive level, and that life's demands are worthy of commitment (Rothmann, Jackson, & Kruger, 2003; Sairenchi, Haruyama, Ishikawa, Wada, Kimura & Muto, 2011).

Sense of coherence can be understood as representing an autonomous personal resource capable of contributing directly to subjective wellbeing (Sairenchi et al., 2011). It also implies stress-coping abilities in relation to stress recognition. Research conducted by Harry and Coetzee (2011) suggests that call centre agents generally tend to have a high sense of coherence which could be attributed to them applying personal resources to enhance their resilience to cope with stressors in the call centre environment.

Research suggests that older people tend to have a stronger sense of coherence than their younger counterparts as a result of the development of the individual's total personality over time. During adolescence a person's sense of identity develops and during the twenties individuals normally develop psychological stability (Bezuidenhout & Cilliers, 2010). Sairenchi et al. (2011) found that gender accounts for significant differences in sense of coherence. Males tend to have slightly higher levels of sense of coherence than females (Bezuidenhout & Cilliers,

2010). However, there seems to be a paucity of research regarding sense of coherence in relation to years of service in the call centre environment.

Career adaptability

Donald Super introduced the term 'career adaptability' to conceptualise how adults adjust to the challenges of a changing world of work (Rottinghaus, Buelow, Matyja, & Schneider, 2012; Super & Kidd, 1979). Career adaptability relates to the professional duties, traumas, events, situations and transitions that individuals find themselves having to deal with, and the psychosocial strategies needed to cope with these (Savickas & Porfeli, 2012). Adaptability is the predisposition or propensity to consciously and continually maintain an integration of person and environment and constitutes attitudes, competencies and behaviours that individuals use to fit themselves into professions that suit them (Ferreira, 2012). Adapting proactively to a changing career circumstance reflects the ability to constructively handle the stress of a new or challenging career context (Hirschi, 2012). Career adaptability denotes characteristic self-regulatory psychosocial coping resources which reflect the problem-solving and coping strategies used by people to incorporate the self-concept into their work roles namely: being concerned about and positively oriented to the future and linking the past and the present; considering the future as at least controllable, and to remain persistent in one's efforts; the willingness to explore the environment by having a sense of curiosity to acquire information about oneself and the outside world; and having confidence in one's own ability to face the challenges and overcome obstacles and barriers that may be experienced in the pursuit of one's goals (Savickas & Porfeli, 2012).

There appears to be a paucity of research on the career adaptability of call centre agents. According to Savickas and Porfeli, (2012), adaptability is the coping responses of behaviours necessary for an individual to handle the career change tasks that individuals may be faced with. Broadly speaking, adaptability reflects the ability to adjust to change, especially in unpredictable and stressful situations. As a context for career development, the high stress nature of a call centre environment may negatively influence a call-centre agent's career development and job/career satisfaction. High stress and burnout levels have been found to lower career wellbeing in the call centre environment (Choi et al., 2012).

Career adaptability reflects a process through which people dynamically build their professional lives and at the same time demonstrate the ability to proactively and effectively handle changes within the particular sociocultural and socioeconomic context they are living in (Coetzee, 2008; Ferreira, 2012). Call centre agents generally experience low levels of career satisfaction due to the repetitive and monotonous nature of the work and the limited opportunities for career progression (Choi et al., 2012). Career adaptability appears to be an important construct to consider in terms of coping behaviour because it relates to a call centre agents' resiliency and career satisfaction. The presence of coping resources reduces distress and preserve people's psychological and social equilibrium (Coetzee & Esterhuizen, 2010). Rossier, Zecca, Stauffer, Maggiori and Dauwalder (2012) posit that as an important set of personal resources, career adaptability exerts a strong impact on career or work related outcomes, such as success in the workplace, work engagement, job satisfaction, or job tenure. Research by Lent (2013) revealed that individuals with high levels of career adaptability generally take a proactive stance to towards managing their personal life and promoting their own wellbeing.

Research suggests that young, early career employees are more likely to demonstrate higher levels of adaptability than those in older age categories. Motivation to change decreases with age and proposes that middle-aged individuals should be more adaptable than the elderly (Rostami, Abedi, Bagnhan, & Savickas, 2012). Middle-aged and older adults may have negative attitudes towards the developmental experiences that are required to become adaptable because such experiences may be taking place at an unexpected time in their lives (Rostami et al., 2012). Gender also relates to individuals' career adaptability, with women showing higher levels of career adaptability than their male counterparts (Ferreira, 2012). However, there seems to a paucity of research regarding career adaptability in relation to years of service in the call centre environment.

Based on the sense of coherence and career adaptability research literature and the role of age and gender in influencing individuals' level of sense of coherence and career adaptability, the following research hypothesis is formulated:

H₁: Individuals' age, gender, years of service in the call centre and sense of coherence positively and significantly predict their career adaptability.

Generally, the researchers of the present study expected that sense of coherence as a resiliency resource will strengthen the self-regulatory psychosocial strengths and resiliency capacities embedded in individuals' career adaptability. The research literature suggests that both sense of coherence and career adaptability are associated with individuals' resiliency resources (Cilliers, 2011; Savickas & Porfeli, 2012). Warner (2011) sees resilience as the ability to adapt to, and be successful under difficult or challenging circumstances. Resilient individuals have the potential not only to return to previous levels of functioning after experiencing adversity but manifest gains in self-esteem, self-efficacy, autonomy and a change in life perspective that serve to make them stronger than they were before (Savickas & Porfeli, 2012; Warner, 2011). Such gains in adaptive behaviour (termed as thriving or flourishing resilience) is the capacity for recovery and maintained adaptive behaviour that may follow initial threat or incapacity upon initiating a stressful event or manifest competence despite exposure to significant stressors (Warner, 2011). A strong positive relationship between call centre agents' sense of coherence and their career adaptability was therefore expected.

Research further provides evidence of the positive relationship between individuals' age and gender and their sense of coherence (Harry, 2011) and career adaptability (Ferreira, 2012). Early career workers tend to have less years of service in the call centre environment and may retain their high levels of career adaptability as suggested by Rostami et al. (2012).

Burnout

Burnout is seen as a persistent, negative, work-related state of mind in "normal" individuals that is primarily characterised by exhaustion and accompanied by distress, a sense of reduced professional effectiveness, increased feelings of incompetence, decreased motivation and productivity, and the development of dysfunctional attitudes and behaviours (cynicism) at work (Bezuidenhout & Cilliers, 2010; Brand-Labuschagne, Mostert, Rothmann Jnr, & Rothmann, 2012; Boudrias, Morin, & Brodeur, 2012).

Individuals who experience prolonged and continual exposure to stressors and lack adequate coping strategies may succumb to a state of physical, emotional and mental exhaustion, known as burnout (De Lange, Dikess & Demerouti, 2010; Jordan, Blumenshine, Bertolone, & Heinrich, 2010; Lee & Choi, 2010). However, individuals who experience stress and who engage in

positive coping behaviour are less inclined to burnout (De Lange et al., 2010; Jordan et al., 2010; Lee & Choi, 2010). Direct and palliative coping styles may play an important role in burnout. A direct coping style is described as problem-solving behaviour through rational and task-oriented strategies, whereas a palliative coping style is described as dealing with emotional distress through strategies such as ignoring the situation. A direct coping style has been associated with lower levels of burnout, whilst a palliative coping style have been associated with higher levels of burnout (De Lange et al., 2010; Jordan et al., 2010; Lee & Choi, 2010). Research by Harry (2011) indicates that call centre agents tend to experience high levels of burnout and low levels of work engagement. However, having a strong sense of coherence increases the agent's engagement. Low burnout rates are also associated with social coping strategies such as talking with others and finding social support (Choi & Jin, 2010).

Research shows that men and women experience burnout fairly similarly. Slight differences exist in that women tend to experience more of the emotional aspect of burnout (Choi et al., 2012). Younger workers seem to be more prone to experiencing burnout than older workers because with increased age, people generally become more stable and mature (Bezuidenhout & Cilliers, 2010). However, there seems to a paucity of research regarding burnout in relation to years of service in the call centre environment.

Based on the sense of coherence, career adaptability and burnout research literature, the following research hypothesis is formulated:

H₀₂: High levels of sense of coherence and career adaptability will not be negatively influenced by high levels of burnout.

The researchers of the present study expected that sense of coherence and career adaptability will display a direct negative relationship with burnout, and that a strong positive sense of coherence and career adaptability relationship will not be affected by high levels of burnout because of the resiliency resources (positive strengths) that sense of coherence and career adaptability represent. Conservation of Resources theory posits that humans have a basic drive towards the maintenance, conservation, and accumulation of resources (Hobfoll, 1989) and these resources act as buffers against and reduce the adverse consequences of stress responses (Bakker & Demerouti, 2007; Tuckey & Hayward, 2011).

Research objective and rationale of the study

Based on the background to the study and the literature review, the research aimed to assess (1) whether call centre agents' age, gender, years of service in the call centre (as control variables) and their sense of coherence positively and significantly predict their career adaptability, and (2) whether call centre agents' level of burnout significantly strengthen or weaken the relationship between their sense of coherence and career adaptability.

There is a paucity of research on how call centre agents' age, gender, years of service, sense of coherence and burnout levels relate to their career adaptability. Due to the scarcity of research on the career adaptability construct, it is not clear whether individuals' burnout levels will significantly moderate the sense of coherence - career adaptability relationship, hence the importance of the present research.

The potential value-add of the study

This research is the first to investigate the construct of career adaptability in relation to sense of coherence, burnout and person characteristics such as age, gender and years of service (as control variables) in the call centre environment and can be regarded as breaking new ground in the wellness and positive psychology literature. The research results may potentially contribute to the body of knowledge on the positive psychological constructs that influence turnover, absenteeism and career wellbeing in the call centre work environment.

The following sections describe the research design, the findings, conclusions and implications for practice and future research

Research design

Research approach

A quantitative research approach was followed to achieve the research objective. A cross-sectional field survey was conducted that generated primary research data.

Research method

Participants

The participants comprised a non-probability purposive sample of 409 early career black call centre agents employed in three of the largest outsourced financial call centres in Africa:

Johannesburg and Durban (South Africa: $n = 364$) and Lagos (Nigeria: $n = 45$). The sample was represented by 65.8% women and 34.2% men. The participants were predominantly in the 25-40 year age (early career) group (97%). The majority of the participants had between one and two years of service in the call centre environment (67%) and 33% had three to ten years of service.

Measuring instruments

The *Orientation to Life Questionnaire* (OLQ-29), developed by Antonovsky (1987), was used to measure the participants' sense of coherence. The OLQ-29 consists of 29 Likert-type self-rating items and respondents are required to make a choice from a seven-point semantic differential scale with two anchoring phrases (Antonovsky, 1987). The OLQ contains three sub dimensions, namely: (1) comprehensibility (11 items), (2) manageability (10 items), and (3) meaningfulness (8 items). A South African –based study by Bezuidenhout and Cilliers (2011) reports an overall Cronbach's alpha of .90 for the OLQ. In terms of the present study, the following Cronbach alpha (internal consistency reliability) values were obtained (see Table 1): comprehensibility (.64), manageability (.57), meaningfulness (.71) and overall scale (.78). The present study adopted the social sciences standard of .70 as an acceptable level of internal consistency reliability (Nunnally & Bernstein, 1994). Only the overall sense of coherence and meaningfulness scales were therefore used for further statistical analyses.

The original, research-based version of the *Career Adapt-Abilities Scale* () developed by Savickas (2010) was used to measure the participants' career adaptability. There is a multi-factorial self-rating measure consisting of 55 items and five subscales: concern (11 items), control (11 items), curiosity (11 items), cooperation (11 items) and confidence (11 items). A 5-point Likert-type scale was used for subject responses to each of the 55 items. A South African-based study by Ferreira (2012) reports internal consistency reliability values ranging between .88 and .90 for the following Cronbach's alpha coefficient (internal consistency reliability) values were obtained for the sample of this study (see Table 1): concern (.84), control (.81), curiosity (.87), cooperation (.83), confidence (.87) and overall scale (.95).

The 16-item *Maslach Burnout Inventory General Scale* (MBI-GS) developed Maslach, Jackson, and Leiter (1996) was used to assess the participants' level of burnout. The MBI-GS consists of three subscales: exhaustion (5 items), cynicism (5 items) and reduced sense of professional

efficacy (6 items). All items were scored on a 7-point Likert-type frequency rating scale, ranging from 0 (never) to 6 (everyday). South African-based studies (Rothmann & Malan, 2003) report internal consistency reliabilities ranging between .70 and .89. In terms of the present study, the following Cronbach alpha (internal consistency reliability) values were obtained (see Table 1): exhaustion (.87), cynicism (.71), professional efficacy (.73) and overall scale (.81).

Research procedure and ethical considerations

Ethical clearance and permission for the research was obtained from the Human Resource manager of the call centres involved and the research institution. Questionnaires were distributed to a non-probability purposive sample of 500 call centre agents. Each questionnaire included a covering letter inviting respondents to participate voluntarily in the study and assuring them that their individual responses would remain anonymous and confidential. The cover letter also stated that completing the questionnaires and returning them constituted agreement to use the results for research purposes only. The research procedure yielded 409 useable questionnaires (response rate = 82%).

Statistical analysis

Preliminary analyses included examination of the internal consistency reliability of the scales and the calculation of zero-order correlation coefficients among the scale variables. The main statistical analysis involved (1) a stepwise multiple regression analysis to produce a predictive model from the control variables age, gender, years at the call centre and the predictor variable meaningfulness (OLQ) in terms of the five criterion variables (concern, control, curiosity, cooperation and confidence), and (2) a hierarchical moderated regression analysis with three steps of entry: In Step 1, the effects of the person characteristics were controlled using the following as covariates: age, gender and years at the call centre. In Step 2, the two independent variables (sense of coherence and burnout) were introduced to assess the main effects in terms of the career adaptability construct. In Step 3 the two-way interaction terms comprising *sense of coherence x burnout* were entered.

The measurement scores for sense of coherence and burnout were centered prior to the computation of the interaction term. The hierarchical regression model was analysed using the moderated regression approach recommended by Cohen, Cohen, West, and Aiken (2003). Prior to conducting the various regression analyses, collinearity diagnostics were examined to

ensure that zero-order correlations were below the level of concern ($r \geq .80$), that the variance inflation factors did not exceed 10, that the condition index was well below 15, and that the tolerance values were close to 1.0 (Field, 2009). In order to counter the probability of a type I error, the significance value was set at the 95% confidence interval level ($p \leq .05$). Cohen's (1992) effect sizes were calculated for establishing the practical significance of the R^2 and ΔR^2 values.

Results

Descriptive statistics

Table 1 presents the means, standard deviations, internal consistency reliability coefficients and zero-order correlations between the OLQ, MBI and variables. Due to the low Cronbach's alpha coefficients obtained for the OLQ comprehensibility and manageability subscales ($\alpha < .70$), these scales were omitted from the statistical analyses. The participants obtained relatively high scores on the OLQ meaningfulness subscale ($M = 4.91$; $SD = 1.10$), the MBI professional efficacy subscale ($M = 4.86$; $SD = 1.04$), and the control subscale ($M = 4.26$; $SD = .52$). The participants scored the lowest on the MBI cynicism ($M = 2.64$; $SD = 1.42$) and cooperation ($M = 3.78$; $SD = .68$) subscales.

TABLE 1: Means, standard deviations, internal consistency reliability coefficients and zero-order correlation ($N=409$)

	Variables	Mean	SD	α	1	2	3	4	5	6	7	8	9	10	11	12
1	Total OLQ	4.68	.75	.78	-											
2	Meaningfulness (OLQ)	4.91	1.10	.71	.78 ***	-										
3	Total MBI	3.77	1.08	.81	-		-									
					.22 ***											
4	Exhaustion (MBI)	2.93	1.74	.87	-	-	.88	-								
					.35 ***	.38 ***	***									
5	Cynicism (MBI)	2.64	1.42	.71	-	-	.80	.68	-							
					.34 ***	.39 ***	***	***								
6	Professional efficacy (MBI)	4.86	1.04	.73	.36 ***	.30 ***	.38 ***	n/s	n/s	-						

7	Total CAAS	4.08	.50	.95	.30 ***	.45 ***	n/s	- .14 **	n/s	.19 ***	-				
8	Concern (CAAS)	4.19	.57	.84	.29 ***	.20 ***	n/s	- .10 *	n/s	.16 **	.81 ***	-			
9	Control (CAAS)	4.26	.52	.81	.27 ***	.17 ***	- .13 **	- .20 ***	- .15 **	.14 **	.84 ***	.62 ***	-		
10	Curiosity (CAAS)	4.01	.65	.87	.15 ***	n/s	n/s	n/s	n/s	.15 **	.87 ***	.61 ***	.68 ***	-	
11	Cooperation (CAAS)	3.78	.68	.83	.17 ***	.11 *	n/s	n/s	n/s	.10 *	.82 ***	.58 ***	.58 ***	.63 ***	-
12	Confidence (CAAS)	4.16	.60	.87	.24 ***	.18 ***	n/s	- .20 ***	- .13 **	.27 ***	.85 ***	.60 ***	.68 ***	.69 ***	.62 ***

Table 1 further show that the OLQ meaningfulness variable was not significantly related to the curiosity variable. Meaningfulness was positively and significantly related to the other four variables concern, control, cooperation and confidence ($r \geq .11 \leq .20$; $p \leq .05$; small practical effect). The overall sense of coherence construct was positively and significantly related to the overall career adaptability construct ($r = .30$; $p \leq .001$; medium practical effect). In terms of burnout (MBI), Table 1 shows that the overall burnout construct related negatively and significantly to the overall sense of coherence construct ($r = -.22$; $p \leq .001$; small practical effect) and did not relate significantly to the overall career adaptability construct. Exhaustion was negatively and significantly associated with concern ($r = -.10$; $p \leq .05$; small practical effect), control($r = -.20$; $p \leq .001$; small practical effect) and confidence($r = -.20$; $p \leq .001$; small practical effect), while cynicism was negatively and significantly associated with control($r = -.15$; $p \leq .01$; small practical effect) and confidence ($r = -.13$; $p \leq .01$; small practical effect). Professional efficacy was positively and significantly associated with all the variables ($r \geq .10 \leq .27$; $p \leq .05$; small practical effect). It was anticipated that multicollinearity would not pose a problem as the Pearson product-moment coefficients (see Table 1) showed a small to medium practical effect, and this is well below the level of concern for multicollinearity ($r \geq .80$) to be present (Field, 2009).

Stepwise multiple regression analysis

As reflected in Table 2, the stepwise multiple regression analysis produced four significant predictive models from the predictor variables age, gender, years at the call centre and meaningfulness (OLQ) in terms of four of the five variables (concern, control, cooperation and confidence). Overall, in all four regression models ($R^2 \geq .04 \leq .05$; small practical effect; $Fp \leq .01$), gender and meaningfulness significantly and positively predicted the participants' level of concern, control, cooperation and confidence. Age also positively and significantly predicted the participants' level of control. Meaningfulness contributed the most in explaining the variance in concern ($\beta = .19$; $p = .00$), control ($\beta = .15$; $p = .01$) and confidence ($\beta = .17$; $p = .01$), while gender contributed the most in explaining the variance in cooperation ($\beta = .16$; $p = .01$). The VIF ($> 1.0 < 1.5$), tolerance (≤ 1.0) and condition index values ($>3 < 12$) provided evidence that multicollinearity could be ruled out in all four regression models.

TABLE 2: *Results of stepwise multiple-regression of age, gender, years at call centre, and meaningfulness (OLQ) on concern, control, cooperation and confidence (CAAS) (N=409)*

Model	Predictor variables	b	SE	β	t	p	ΔR^2	Adjusted R^2
1 (concern)	(constant)	3.60	.13		27.41	.001 ***		
	Age	-.04	.06	-.03	-.60	.71		
	Gender	.18	.06	.15	3.0	.01 **		
	Years at the centre	.02	.06	.02	.40	.69		
	Meaningfulness	.10	.03	.19	3.94	.001 ***	.04*** $\Delta F: 15.52$.05*** F: 6.81
2 (control)	(constant)	3.76	.12		31.04	.001 ***		
	Age	.11	.05	.11	2.09	.05 *		
	Gender	.15	.05	.14	2.79	.01 **		
	Years at the centre	-	.06	-	-.01	.99		
	Meaningfulness	.07	.02	.15	3.09	.01 **	.02** $\Delta F: 15.52$.05*** F: 6.07
4 (cooperation)	(constant)	3.31	.16		20.69	.001 ***		

Model	Predictor variables	b	SE	β	t	p	ΔR^2	Adjusted R^2
5 (confidence)	Age	.06	.07	.04	.84	.40		
	Gender	.23	.07	.16	3.21	.01**		
	Years at the centre	-.05	.08	-.03	-.63	.53		
	Meaningfulness	.06	.03	.10	1.96	.05*	.01*	.03**
	(constant)	3.65	.14		26.20	.001***	$\Delta F: 3.86$	F: 4.08
	Age	-.01	.06	-.01	-.21	.83		
	Gender	.14	.06	.11	2.27	.05*		
	Years at the centre	-.05	.07	-.04	-.75	.45		
	Meaningfulness	.09	.03	.17	3.40	.001***	.03**	.04**
							$\Delta F: 11.54$	F: 4.80

With the exception of years of service, the results provided supportive evidence for the hypothesis (H_1) that individuals' age, gender, years of service in the call centre and sense of coherence positively and significantly predict their career adaptability.

Hierarchical moderated regression

In terms of the overall sense of coherence, burnout and career adaptability constructs, Table 3 shows that the regression model was significant ($R^2 = .08$; small practical effect; $Fp \leq .001$), with gender ($\beta = .14$; $p = .01$) and sense of coherence ($\beta = .25$; $p = .00$) contributing significantly and positively in explaining the variance in the career adaptability construct. However, the third step of the regression analysis, which examined two-way interactions, was not significant. The R^2 change was also not significant. The VIF ($> 1.0 < 1.1$), tolerance (≤ 1.0) and condition index values ($> 3 < 4$) provided evidence that multicollinearity could be ruled out in the regression model.

As shown in figure 1, a simple slope test for the regression model confirmed that burnout did not significantly moderate the relationship between the participants' sense of coherence and their level of career adaptability. Figure 1 shows that the sense of coherence-career adaptability relationship was not necessarily stronger for those participants with either high or low levels of burnout.

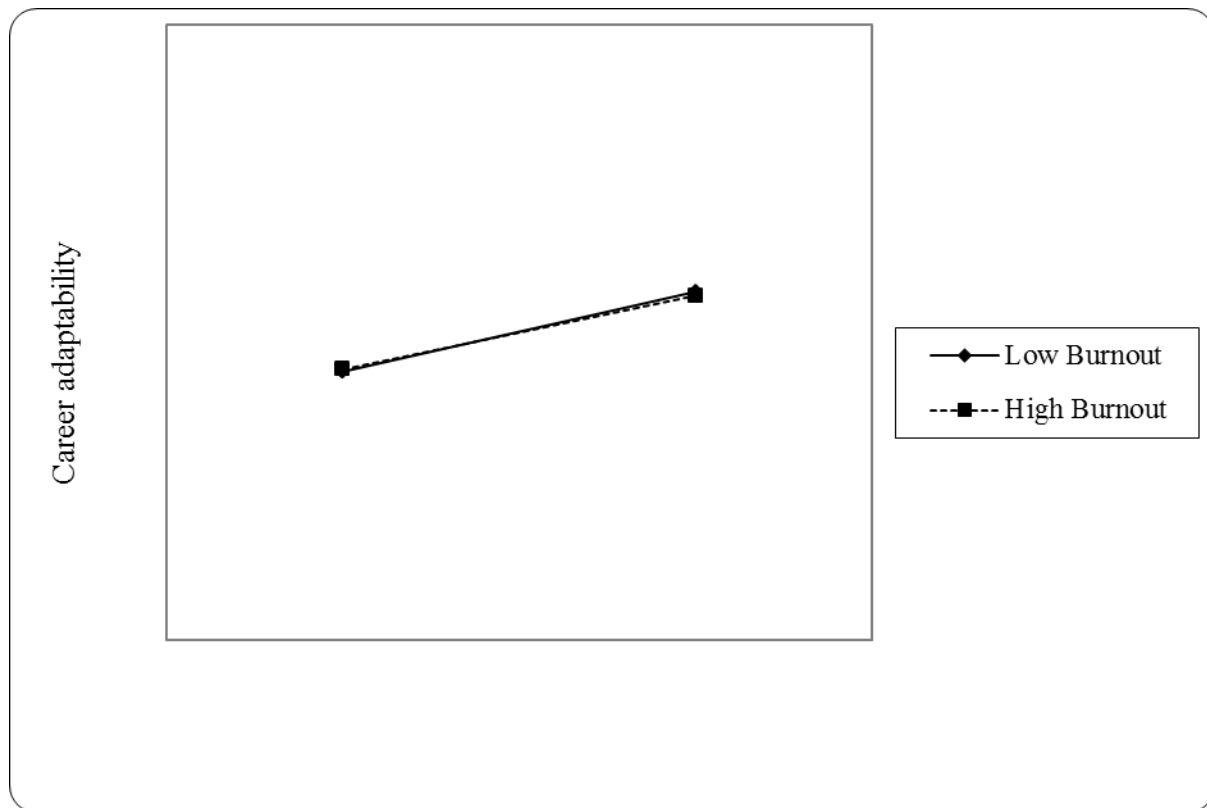


Figure 1: Interaction effect between sense of coherence (independent variable) and burnout (moderating variable) on career adaptability. $N = 409$. Independent and moderating variables were mean centered for the moderated regression analysis.

Discussion

The research hypotheses dealt with the predictive influence of individuals' age, gender, years of service in a call centre (as control variables) and their sense of coherence on their level of career adaptability. The research also investigated whether burnout levels significantly moderated the relationship between individuals' sense of coherence and their career adaptability.

In terms of the control variables, age, gender and years of service, the results suggest that gender needs to be considered in understanding the predictive value of meaningfulness and overall sense of coherence in strengthening the participants' career adaptability. Ferreira (2012) found women to have higher levels of career adaptability than their male counterparts. Contrary to research conducted by Ferreira (2012), age also positively contributed in explaining the participants' sense of control. The association between age and sense of control (self-discipline in conscientious and responsible decision-making) may be because of the early career being the period during which the life structure of early career adults becomes more stable as they begin to settle down and become committed to contributing towards an occupation, a company or a person (Coetzee & Schreuder, 2008). Rostami et al. (2012) also suggest that early career workers tend to have high levels of career adaptability. Career adaptable individuals are also likely to have strong feelings of attachment to their organisation and are more likely to engage in self-development activities that will enable them to take advantage of opportunities in their job or career (Ferreira, 2012).

The issue of central theoretical interest in the present study was the relationship between call centre agents' sense of coherence and their career adaptability and the moderating effect of burnout. Sense of coherence and career adaptability are considered as important positive human strengths or resiliency resources in buffering the negative effects of adverse and traumatic events and situations relating to the work/career environment context (Hirschi, 2012; Louw et al., 2012; Mayer, 2013; Savickas & Porfeli, 2012). As expected, the results provided evidence that sense of coherence as a resiliency resource strengthens the self-regulatory psychosocial strengths and resiliency capacities embedded in individuals' career adaptability. The sample of participants also had positive perceptions regarding their sense of coherence, sense of meaningfulness and their career adaptability (control).

Career adaptability resources reside at the intersection of person-in-environment and enable individuals to adjust to the challenges of their working lives (Savickas & Porfeli, 2012). It appears from the results that helping call centre agents to see how their jobs fit into their personal and work lives and that it is worthy of investment, commitment and engagement is important in enhancing their career adaptability. As a coping (or resiliency resource), sense of coherence is assumed to mitigate life stress by affecting the overall quality of individuals;

cognitive and emotional appraisal of the stimuli that impact on them (Rothmann et al., 2003). The results showed that a sense of meaningfulness (feeling life makes sense on an emotional and cognitive level) significantly contributed in explaining the participants' career adaptability strengths in terms of their concern (orientation to and involvement in preparing proactively for the future), control (self-discipline in conscientious and responsible decision-making), cooperation (contributing to and cooperating with the team/community), and confidence in their ability to solve problems and overcoming career-related barriers/obstacles (Savickas, 2010; Van Vianen et al., 2012). Rothmann et al. (2003) found that high levels of sense of coherence contribute to the professional efficacy of individuals. Naude and Rothmann (2006) also found positive links between a strong sense of sense of coherence and engagement.

As expected, negative associations were observed between burnout (exhaustion and cynicism) and sense of coherence and meaningfulness. High levels of concern, control and confidence also seemed to have lowered the participants' levels of exhaustion, whilst high levels of control and confidence have lowered their cynicism. Overall, high levels of professional efficacy appeared to have increased the participants' career adaptability resources. The participants also indicated low burnout levels and high levels of professional efficacy, meaningfulness and career adaptability which may have contributed to the positive associations between these resiliency resources. Moreover, their overall burnout levels did not affect the relationship between their sense of coherence and career adaptability resources. Stress resilience is linked to resources and the investment in resources (Tuckey & Hayward, 2011). The findings of the present study seems to corroborate the notion that accumulated positive psychosocial resources may alter the perceptions evoked by stressors and even reduce the adverse consequences of stress states and responses (Bakker & Demerouti, 2007). Research also shows that a strong sense of coherence decreases emotional exhaustion and depersonalisation (Bezuidenhout & Cilliers, 2010; Harry, 2011; Sairenchi et al., 2011). The lack of association between overall career adaptability and overall burnout may also have contributed to the lack of interaction effects between these variables.

Limitations of the study

The conclusions about the findings of our study need to be considered in light of a number of limitations, each suggestive of promising directions in the area of research on enhancing call centre agents' career wellbeing and satisfaction. First, the study was cross-sectional in nature

and thus the causal direction of relations between the variables cannot be ascertained. Second, the study was limited to the call centre environment and to a predominant sample of early career black and female participants. The findings can therefore not be generalised to other occupational, age, race and gender contexts. Replication studies, using independent samples drawn from other occupational contexts are recommended.

Future research

Given the practical and theoretical importance of positive psychosocial or resiliency resources in contemporary career development, and especially the call centre environment, future research in this area is undoubtedly warranted. Future research initiatives may consider the mediating effect of sense of coherence in the burnout-career adaptability relationship. Longitudinal studies are needed to understand how call centre agents' life orientation (sense of coherence) evolves over time and how this influences their career adaptability. Such studies also need to consider variables relating to individuals' evolving career self-concept, their career needs and interests and how these influence their level of sense of coherence, stress resilience and adaptability. Gender was also indicated as a significant predictor of career adaptability. Future research should explore the differences between males and females in terms of career adaptability.

Conclusions

Overall, the results of the study added valuable new insights regarding how age, gender, sense of coherence and sense of meaningfulness influence the career adaptability of call centre agents. Attending to the complex process of coping with the challenges and demands of career development in the 21st century work world, and especially in the call centre environment, can help individuals in identifying personal strengths and other positive psychosocial resources necessary for adjusting to changing contextual circumstances affecting their working lives. Enhancing call centre agents' sense of meaningfulness by helping them understand why the work is meaningful and where they fit in the broader picture will significantly increase their levels of career adaptability, which in turn may result in more positive work attitudes and career wellbeing in the call centre environment. Insight in the role of sense of coherence and career adaptability in helping individuals to manage their career wellbeing and development through the lifespan have become important in the 21st century work of world. This research serves as a stepping stone toward continued research on the positive psychological constructs that may help structure healthy and flourishing career behaviour in the call centre environment.

Considering that this research is the first to investigate the construct of career adaptability in the call centre environment, the study can be regarded as novel and adding new insights and knowledge to the wellness and positive psychology literature.

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