

**THE RELATIONSHIP BETWEEN SENSE OF COHERENCE, WORK ENGAGEMENT AND
BURNOUT IN A PUBLIC-SECTOR ORGANISATION**

by

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SCOPE OF THE DISSERTATION

For this master's dissertation of limited scope (50% of the total master's degree) the Department of Industrial and Organisational Psychology prescribes an article format. This format involves four chapters – an introductory chapter (chapter 1), a literature review (chapter 2), a research article (chapter 3) and, finally, a chapter containing the conclusion, limitations and recommendations of the research (chapter 4).

TECHNICAL AND REFERENCE STYLE

The publication guidelines of the South African Journal of Industrial Psychology (SAJIP) were used to structure the dissertation and article. In particular, the APA 6th edition guidelines for referencing, tables and figures were used.

DECLARATION

I, Fatima Gallie, student number 36088889, declare that this dissertation entitled “The relationship between sense of coherence, work engagement and burnout in a public-sector organisation” is my own work, and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I also declare that the study has been carried out strictly in accordance with the Policy for Research Ethics of the University of South Africa (Unisa). I took great care that the research was conducted with the highest integrity, taking into account Unisa's Policy for Infringement and Plagiarism.

I further declare that ethical clearance to conduct the research was obtained from the Department of Industrial and Organisational Psychology, University of South Africa. Permission was also obtained from the participating organisation to conduct the research.



FATIMA GALLIE

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SUMMARY

THE RELATIONSHIP BETWEEN SENSE OF COHERENCE, WORK ENGAGEMENT AND BURNOUT IN A PUBLIC SECTOR ORGANISATION

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DEPARTMENT : Industrial and Organisational Psychology

DEGREE : MCom (Industrial and Organisational Psychology)

The objective of this study was (i) to determine the relationship between sense of coherence, work engagement and burnout; and (ii) to determine whether, in terms of the various socio-demographic groups, namely, gender, age, race, marital status, number of years in current position and number of years in public service, the sample differed significantly in terms of their levels of sense of coherence, work engagement and burnout.

A quantitative study, using primary data, was conducted using a convenience sample (N = 172) of middle managers in a public service organisation. The psychometric properties of the Orientation to Life Questionnaire, the Utrecht Work Engagement Scale and the Maslach Burnout Inventory Scale were investigated before the hypothesis was tested.

The statistical analysis of the data included descriptive statistics as well as inferential statistics. The Kaiser-Meyer Olkin and Bartlett's test of sphericity techniques were used to determine the exploratory factor analysis of all three measuring scales. A correlation analysis between the one-factor sense of coherence, one-factor work engagement and the three burnout sub-dimensions (exhaustion, cynicism and professional efficacy) was conducted.

The Pearson product-moment correlation was used to determine the strength of the relationships between the variables. The level of significance was set at a 95% confidence interval level ($p \leq 0,05$).

Standard multiple regression analysis was used to establish whether there is a significant relationship between sense of coherence, work engagement and burnout. The Wilk's lambda technique was used to test the results for significance, while Levene's test of

equality of error variances technique was used to test the results for significance on the sense of coherence and work engagement scales with regard to the demographic groups.

The results showed that there was a significant relationship between the participants' sense of coherence, work engagement and burnout levels. Significant differences were also found between respondents in the marital status group and the burnout dimension, depersonalisation or cynicism. The results also reflected the wellbeing status of middle managers and indicated that the respondents were flourishing (feeling good as they scored a high sense of coherence and functioning well as indicated by a high score for work engagement).

It is anticipated that the findings of the study will contribute valuable knowledge to employee wellbeing programmes in public service. The study concludes by making recommendations for future research practice.

KEY TERMS:

employee wellness, middle managers, public service, sense of coherence, work engagement and burnout

TABLE OF CONTENT

CHAPTER 1	1
SCIENTIFIC ORIENTATION TO THE RESEARCH	1
1.1 BACKGROUND FOR AND MOTIVATION OF THE RESEARCH	1
1.2 THE CONSTRUCTS SENSE OF COHERENCE, WORK ENGAGEMENT AND BURNOUT	3
1.3 PROBLEM STATEMENT	6
1.3.1 Research questions with regard to the literature review	7
1.3.2 Research questions with regard to the empirical study	7
1.4 AIMS OF THE RESEARCH	8
1.4.1 General aim	8
1.4.2 Specific aims.....	8
1.5 PARADIGM PERSPECTIVES	9
1.5.1 Intellectual climate	9
1.5.1.1 <i>Salutogenic paradigm</i>	9
1.5.1.2 <i>Humanistic paradigm</i>	10
1.5.1.3 <i>Positivist paradigm</i>	11
1.5.2 Meta-theoretical statements.....	11
1.5.2.1 <i>Industrial and organisational psychology</i>	12
1.5.2.2 <i>Psychometrics</i>	12
1.5.2.3 <i>Theoretical models</i>	12
1.5.2.4 <i>Conceptual descriptions</i>	12
1.5.3 The central hypothesis.....	15
1.6 RESEARCH DESIGN	15
1.6.1 Research approach.....	15
1.6.2 Research variables	15
1.6.3 Methods to ensure adherence to ethical research principles.....	16
1.6.4 Reliability and validity.....	16
1.6.5 Unit of study	17
1.7 RESEARCH METHODOLOGY	17
1.7.1 Research method.....	17
1.7.1.1 <i>Phase 1: Literature review</i>	19
1.7.1.2 <i>Phase 2: Empirical study</i>	19
1.8 CHAPTER LAYOUT	19

1.8.1 Chapter 1: Scientific orientation to the research	19
1.8.2 Chapter 2: Literature review.....	19
1.8.3 Chapter 3: Research article	20
1.8.4 Chapter 4: Conclusion, limitations and recommendations.....	20
1.9 CHAPTER SUMMARY	20
CHAPTER 2	21
LITERATURE REVIEW: SENSE OF COHERENCE, WORK ENGAGEMENT AND BURNOUT.....	21
2.1 EMPLOYEE HEALTH AND WELLNESS	21
2.1.1 Flourishing as an employee wellbeing concept	22
2.1.2 The context of the South African public sector	25
2.2 SENSE OF COHERENCE	27
2.2.1 Conceptualisation of sense of coherence	27
2.2.2 Definition of sense of coherence.....	29
2.2.3 Theory of sense of coherence	30
2.2.4 Dimensions of sense of coherence.....	31
2.2.5 Socio-demographic variables influencing sense of coherence	32
2.3 WORK ENGAGEMENT	35
2.3.1 Conceptualisation of work engagement.....	35
2.3.2 Definition of work engagement	36
2.3.3 Theory of work engagement	36
2.3.4 Dimensions of work engagement.....	37
2.3.5 Demographic variables influencing work engagement	38
2.4 BURNOUT	40
2.4.1 Conceptualisation of burnout	40
2.4.2 Definition of burnout.....	41
2.4.3 Theory of burnout.....	41
2.4.4 Dimensions of burnout	43
2.4.5 Socio-demographic variables influencing burnout	44
2.5 INTEGRATION: THE THEORETICAL RELATIONSHIP BETWEEN SENSE OF COHERENCE, WORK ENGAGEMENT AND BURNOUT	47
2.6 CHAPTER SUMMARY	54

Chapter 3	55
Research article: The relationship between sense of coherence, work engagement and burnout in a public sector organisation	55
INTRODUCTION	57
Key focus of the study	57
Background of the study	57
Literature review	59
Research objectives	66
The potential value-add of the study	66
What will follow	66
RESEARCH DESIGN	66
Research approach	67
Research method	67
RESULTS	73
Descriptive statistics	73
Exploratory factor analysis	75
Correlation analysis between sense of coherence, work engagement and burnout	82
Multiple regression	83
Relationship between sense of coherence, work engagement, burnout and the socio-demographic variables	87
DISCUSSION	90
The biographical profile of the sample	90
The relationship between sense of coherence, work engagement and burnout	91
Relationship between socio-demographic groups and the constructs	94
CONCLUSION	96
LIMITATIONS OF THE RESEARCH	96
RECOMMENDATIONS	96
REFERENCES	98
CHAPTER 4	107
CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS	107
4.1 CONCLUSIONS	107
4.1.1 Conclusions regarding the literature review	107
4.1.2 Conclusions regarding the empirical study	110
4.1.3 Conclusions regarding the central hypothesis	115

4.1.4	Conclusions regarding contributions to the field of Industrial and Organisational Psychology.....	116
4.2	LIMITATIONS	117
4.2.1	Limitations of the literature review	118
4.2.2	Limitations of the empirical study.....	118
4.3	RECOMMENDATIONS FOR PRACTICAL USE AND FUTURE RESEARCH	119
4.3.1	Recommendations regarding employee wellness programmes	119
4.3.2	Future research.....	122
4.4	INTEGRATION OF THE RESEARCH	122
4.5	CHAPTER SUMMARY	123
	REFERENCES	124

LIST OF FIGURES

<i>Figure 1.1</i>	Flow diagram of research method.....	18
<i>Figure 2.1</i>	The hierarchical relationship of flourishing and well-being.....	23
<i>Figure 2.2</i>	The integration of the wellbeing constructs with sense of coherence, work engagement and burnout	49
<i>Figure 2.3</i>	The theoretical impact of the constructs sense of coherence and work engagement on employee wellbeing.....	53
<i>Figure 2.4</i>	The theoretical impact of the construct burnout on employee wellbeing.....	54
<i>Figure 4.1</i>	<i>Overview and summary of core conclusions and recommendations for employee wellness practices.....</i>	<i>115</i>

LIST OF TABLES

Table 3.1	<i>Biographical distribution of sample (N = 172).....</i>	<i>69</i>
Table 3.2	<i>Descriptive statistics: mean, standard deviation and Chronbach Alpha coefficients</i>	<i>74</i>
Table 3.3	<i>Factor analysis on the sense of coherence, work engagement and burnout scales</i>	<i>76</i>
Table 3.4	<i>Factor loadings of the Orientation to Life Scale (sense of coherence).....</i>	<i>77</i>
Table 3.5	<i>Total variance of the one factor scale explained.....</i>	<i>78</i>

Table 3.6	<i>Factor loadings of Utrecht Work Engagement Scale (work engagement).....</i>	<i>79</i>
Table 3.7	<i>Total variance of the one factor scale explained.....</i>	<i>80</i>
Table 3.8	<i>Factor loadings of the Maslach Burnout Inventory (Burnout).....</i>	<i>81</i>
Table 3.9	<i>Total variance explained by the top three factors only.....</i>	<i>82</i>
Table 3.10	<i>Correlation Coefficients between Sense of Coherence, Work Engagement and Burnout (n=172).....</i>	<i>82</i>
Table 3.11	<i>Multiple Regression Analysis with Exhaustion as Dependent Variable.....</i>	<i>83</i>
Table 3.12	<i>Multiple Regression Analysis with Sense of Coherence and Work Engagement as Independent Variables.....</i>	<i>84</i>
Table 3.13	<i>Multiple Regression Analysis with Professional Efficacy as Dependent Variable</i>	<i>85</i>
Table 3.14	<i>Regression analysis of sense of coherence together with work engagement as predictors of professional efficacy.....</i>	<i>85</i>
Table 3.15	<i>Multiple Regression Analysis with Cynicism as Dependent Variable.....</i>	<i>86</i>
Table 3.16	<i>Regression analysis with sense of coherence and work engagement as predictors of cynicism.....</i>	<i>87</i>
Table 3.17	<i>ANOVA – Differences in Sense of coherence between socio-demographic groups.....</i>	<i>88</i>
Table 3.18	<i>ANOVA – Differences in work engagement and socio-demographic groups</i>	<i>89</i>
Table 3.19	<i>ANOVA – Differences in burnout (cynicism) and socio-demographic groups</i>	<i>90</i>

CHAPTER 1

SCIENTIFIC ORIENTATION TO THE RESEARCH

This study focused on the nature of the relationship between the variables sense of coherence, work engagement and burnout among middle managers in a public sector organisation in South Africa. This chapter includes the background to the study and motivates why the study was deemed to be important within the current context of service delivery in the public service. The paradigms that underpinned the study as well as the models and theory used are introduced. The research design, methodology, measuring instruments, data analysis techniques, ethical considerations, and limitations of the study and recommendations of the study are discussed. Finally, the chapter presents a layout of the chapters contained in the study.

1.1 BACKGROUND FOR AND MOTIVATION OF THE RESEARCH

The study investigated the relationship between sense of coherence, work engagement and burnout. The context of the study was the psychological functioning of middle managers amid the stressors present in a public service environment. Globalisation, competitive markets and unstable economies all require organisations to ensure that their employees are cognitively and emotionally committed to their jobs, their customers and to the organisation itself (Rothmann & Rothmann, 2010). Public sector organisations are also affected by changes in the labour and economic markets which may pose challenges in the form of economic uncertainty, budget cuts, e-government practices and an increasing demand for both basic as well as quality services (Karp & Helgo, 2008). Furthermore, the culture in the public service is often found to be inflexible and this may result in low levels of job satisfaction and high levels of burnout experienced by both managers and supervisors (Burke, 2001; Serin & Balkan, 2014). In addition, there is an urgent need to increase the competencies of managers in public service so that service delivery may improve.

The 21st century requires new forms of public service, including employees who are focused and committed to both service delivery and policy implementation (Park & Perry, 2012). Denhardt and Denhardt (2011) argued that the new public service requires officials who are able to operate in a leaner and increasingly privatised government yet they are required to emulate business practices and values.

In the South African government departments there are various occupational levels, including that of middle managers (between salary levels 11 and 12) (DPSSA, 2005). Middle managers are positioned between senior managers and junior managers. Today, middle

managers are required to function in an increasingly complex and challenging environment (McGurk, 2009). According to the Middle Manager Competency Framework for the South Australian public sector, a middle manager is responsible for managing projects or programmes and works as a service delivery manager. Otherwise middle managers may work as independent technical experts, for example policy developers and researchers. Middle managers are categorised as follows: professional or production specialists with supervisory or management duties; managers of production units; managers of regional offices or institutions (DPSA, 2005).

Middle managers play a critical role in interpreting and envisioning the organisational strategic objectives so as to enable the front line staff to execute such strategies (McGurk, 2009). According to McGurk (2009), the role of middle managers is to manage subordinates or team members and resources; implement business plans; and effectively implement both strategic changes driven from the top and those initiated from below. Middle managers therefore require both managerial and leadership skills. Lawler (2008) highlighted the increasing focus on the concept of leadership and management development in public sector organisations. These concepts have a universal application in their various approaches. Thus, there is a need to explore how this universal application affects individuals and its impact on the psychological states of employees within the public sector.

Since 1994 the South African public service has initiated various transformation programmes, for example the Employee Health and Wellness Strategic Framework to promote the wellbeing of civil servants within government departments; to improve engagement and productivity; and to accelerate service delivery (Kanjere, Thaba & Makgato, 2014). The South African public service has, nevertheless, been found to be inefficient and ineffective in relation to service delivery and civil servants are deemed to have low levels of job and life satisfaction (Burke, 2001; Luddy, 2005). A study conducted among public servants in Pakistan found that the lack of career development opportunities, poor interpersonal relations between colleagues and unequal distribution of work in the public service environment were associated with work-related stress and resulted in both poor work performance and inefficient service delivery (Ahmad, 2013).

Wellbeing or flourishing is a subjective term and is influenced by the individual's subjective experiences. It includes feelings about life (emotional wellbeing) and functioning in society (psychological and social wellbeing) (Keyes, Shmotkin, & Ryff, 2002). The concept of flourishing or wellbeing is also relevant in the workplace and may be studied in terms of an emotional dimension, for example job satisfaction, and a psychological dimension, for example work engagement (Rothmann, 2013).

According to Hidalgo, Bravo, Martinez, Pretel, Postigo and Rabadan (2010), psychological wellbeing is strongly associated with life satisfaction, self-esteem and internal control. Keyes (2009) mentioned that the concept of flourishing is directly linked to positive mental health and psychological wellbeing. According to Keyes (2002), a positive social and personal evaluation in relation to psychological wellbeing would result in an improvement in individual functioning.

According to May (2006), employee and organisational wellness are characterised by employee and organisational health and influence work performance while ill-being may have a negative impact on work behaviour. Personal strengths such as a strong sense of coherence paired with coping abilities, resilience as well as physical mental and emotional wellbeing may result in employees responding in different ways to similar environmental stimuli. Patrick (2011) mentioned that, although employees experience stress related challenges in the workplace, many respond to such challenges in a positive way.

1.2 THE CONSTRUCTS SENSE OF COHERENCE, WORK ENGAGEMENT AND BURNOUT

For the purposes of this study, sense of coherence is considered a salutogenic or positive psychological construct that allows individuals to understand and manage complex situations while remaining healthy (Antonovsky, 1987). Stressors, mentioned by Antonovsky (1979), are pervasive in life. According to Patrick (2011), the public service environment is a stressful environment, especially when there is organisational change. Organisational stressors in public service include poor communication, lack of decision-making powers, incompetence and performance policies that do not reward performance excellence (Patrick, 2011; Serin & Balkan, 2014). Middle managers in public service have a complex role to play and often experience role dissonance as they are caught between strategic formulation and programme implementation while they often have very little opportunity to influence the decision-making processes (McConville, 2006).

The relationship between salutogenic functioning and other wellbeing constructs is therefore an important consideration in public service as employees are expected to manage the demands of various stakeholders while delivering an effective service to the public (Patrick, 2011). In addition, it is also crucial that middle managers possess effective coping skills to enable them to influence and motivate subordinates to meet work objectives (Carlström, 2012).

According to the salutogenesis theory, sense of coherence refers to the individual's ability to establish and maintain quality of life and includes the capacity to manage a variety of stressors in everyday life (Antonovsky, 1993). Sense of coherence relates to the way in which individuals logically comprehend their complex environments and results in individual difference in behaviour (Bezuidenhout & Cilliers, 2010). It has been found that, compared to individuals with a low sense of coherence, individuals with a high sense of coherence are able to cope more effectively with stressors by implementing appropriate coping strategies while remaining healthy (Ochiai, Daitou, & Aoki, 2012; Wainwright, Surtees, Welch, Luhen, Khaw, & Bingham, 2007). A sense of coherence among employees in the workplace may be attributed to self-related health and job satisfaction while individual differences may be the mediating factor between sense of coherence, work engagement and burnout (Ochiai et al., 2012; Patrick, 2011; Strümpfer & De Bruin, 2009).

According to McGurk (2009), despite the fact that middle managers in government have a crucial role to play in implementing change, there have been few studies on interventions aimed at addressing developmental areas among middle managers. McGurk (2009) argued that several management studies have focused on management capacity in relation to organisational change and not on the psychological wellbeing of managers. The construct of work engagement is an important factor in the study of work performance and has become a popular research subject as it relates to human strengths, happiness and optimal functioning in the workplace (Bakker, Schaufeli, Leiter, & Taris, 2008; Bothma & Roodt, 2012; Rothmann & Rothmann, 2010). Work engagement is a reflection of the way in which employees experience their work, for example, work is stimulating and energetic and something in which to invest time and effort in (vigour); work is significant and meaningful (dedication) and something which to direct full concentration (absorption) in.

Positive organisational outcomes that include productivity, job satisfaction, motivation, commitment, low turnover, customer satisfaction, return on assets, profits and shareholder values are all predicted by work engagement (Bakker et al., 2008). According to Dyer (2009), engaged employees are knowledgeable about their company; are aware of their competitive advantage; communicate effectively with colleagues and are passionate about customer care. Within the public service, work engagement is therefore a vital construct as it may have a spiral as well as reciprocal effect. That is, the engagement of middle managers positively influences perceived job resources and this has a positive impact on the engagement levels of seniors and subordinates and vice versa (Schaufeli, Bakker & Van Rhenen, 2009).

Burnout is a pathogenic construct and is regarded as the opposite of work engagement (Maslach, Schaufeli & Leiter, 2001). Burnout is characteristic of a persistent negative mental state and is driven mainly by chronic job stress. It includes symptoms of emotional exhaustion, decreased motivation and feelings of reduced effectiveness (Schaufeli & Enzmann, 1998). Employees who experience high levels of burnout are more likely to experience extreme emotional depletion; disinterest in work or clients; and lack of work efficacy (Fourie, Rothmann & Van de Vijver, 2007).

Previous research has shown that there is a strong relationship between sense of coherence, work engagement and burnout and also that sense of coherence is positively related with work engagement (Bezuidenhout, 2008; Fourie et al., 2007). Studies show that individuals with a strong sense of coherence experience higher levels of work engagement and lower levels of burnout compared to those with a weak sense of coherence (Patrick, 2011; Rothmann, Steyn & Mostert, 2005; Van der Colff & Rothmann, 2009). In addition, the relationship between sense of coherence, work engagement and burnout is also negatively correlated as employees who experience high levels of burnout demonstrate reduced levels of sense of coherence and lower levels of work engagement (Bezuidenhout, 2008).

Feldt (1997) found that, as the level of sense of coherence increases, the dimension known as emotional exhaustion decreases. According to Schaufeli and Bakker (2003), burnout mediates the impact of job demands on health while work engagement mediates the impact of job resources on turnover intentions.

This study also investigated whether there were differences between the socio-demographic groups, namely, gender, age, race, marital status, number of years in current position and number of years in public service and the three constructs of sense of coherence, work engagement and burnout. According to Ryff and Heidrich (1997), socio-demographic variables play an important role in the prediction of and in an individual's psychological wellbeing. Bezuidenhout (2008) found no relationship between race and sense of coherence, work engagement and burnout although Gropp (2006) reported a significant relationship between race and sense of coherence. In their studies on work engagement, Wajid, Zaidi, Zaidi and Zaidi (2011) discovered that males were found to be more dedicated than females while the three constructs of vigour, dedication and absorption were found to be significantly higher among married teachers compared to those who were not married.

1.3 PROBLEM STATEMENT

In view of the above discussion it was deemed important to investigate the relationship between sense of coherence, work engagement and burnout as well as the way in which these wellbeing constructs contribute to the individual's coping skills.

There has been considerable focus on organisational and individual wellness in the past decade as employees struggle to cope with and adapt to organisational changes (Rothmann, 2003). This study on employee wellness is of particular importance as the public service environment is considered to be a demanding working environment in which officials experience chronic work related stress, ill-health and burnout (Borg & Riding, 1991; Kyriacou, 1987; Laughlin, 1984).

Constructs such as sense of coherence, work engagement and burnout have been investigated in the public service context but mainly in the health and education sectors (Bezuidenhout & Cilliers, 2010; Harry, 2011; Jacobs & Roodt, 2010; Wajid et al., 2011). However, there appears to be a lack of research on the relationship between the constructs of sense of coherence, work engagement and burnout among middle managers in public service and therefore this study aims to address the gap with regard to the limited knowledge of the wellbeing properties of middle managers in the public sector environment (McGurk, 2009; Patrick, 2011; Williams, 2009).

Thus, the aim of this study was to generate empirical evidence on the relationship between the psychological properties of sense of coherence, work engagement and burnout in relation to the functioning and wellbeing of middle managers in the public sector. Furthermore, it is hoped that the research findings would provide an understanding of the coping ability of middle managers against the background of the challenges posed by the public service environment. Knowledge of such coping ability and wellbeing should provide new insights in the industrial and organisational psychology field as well as the public service in general. The recommendations arising from the study may inform future human resources strategies and interventions and may also contribute to strengthening employee wellness programmes in the public sector environment.

Based on the background discussed above the following research hypotheses were formulated and were empirically tested in the study.

H₁: A statistically significant relationship exists between sense of coherence, work engagement and burnout.

H₂: Individuals' level of burnout is significantly influenced by the constructs of sense of coherence and work engagement.

H₃: Groups differing in gender, age, race, marital status, number of years in current position and number of years in public service will differ significantly in their levels of sense of coherence, work engagement and burnout.

In relation to the above research hypotheses, several research questions relevant to the literature review were identified:

1.3.1 Research questions with regard to the literature review

In light of the abovementioned problem statement, several research questions pertinent to the relevant literature were posed.

Research question 1: How are the constructs of sense of coherence, work engagement and burnout conceptualised in the literature and what is the theoretical relationship between these constructs amongst middle managers in the public sector organisation?

Research question 2: According to the literature do socio-demographic groups characterised by gender, age, race, marital status, number of years in current position and number of years in public service differ significantly in relation to sense of coherence, work engagement and burnout?

Research question 3: What are the implications of the theoretical relationship between sense of coherence, work engagement and burnout for employee wellness practices in the public service?

1.3.2 Research questions with regard to the empirical study

The following research questions were of relevance to the empirical study:

Research question 1: What is the nature of the empirical relationships between sense of coherence, work engagement and burnout as demonstrated in a sample of respondents in the South African public sector?

Research question 2: Do differences exist between the sense of coherence, work engagement and burnout of individuals in terms of gender, age, race, marital status, number of years in current position and number of years in public service as demonstrated in the sample of respondents?

Research question 3: Based on the findings of the research study what recommendations may be formulated for employee wellness practices and possible future research?

1.4 AIMS OF THE RESEARCH

1.4.1 General aim

The general aim of the study was to explore, analyse and evaluate the relationship between sense of coherence, work engagement and burnout in relation to the wellbeing on middle managers in a public sector organisation in South Africa and with specific reference to the impact of these constructs on individuals. The secondary aim of the study was to determine whether individuals from different socio-demographic backgrounds, for example, gender, age, race, marital status, number of years in current position and number of years in public service differ with regard to sense of coherence, work engagement and burnout.

1.4.2 Specific aims

The specific literature aims included the following:

- To conceptualise sense of coherence, work engagement and burnout and to determine the theoretical perspective of sense of coherence, work engagement and burnout in relation to wellbeing.
- To determine theoretically (based on a review of the existing literature) the role of gender, age, race, marital status, number of years in current position and number of years in public service in relation to sense of coherence, work engagement and burnout.
- To determine the implications of the constructs sense of coherence, work engagement and burnout for wellness practices in the public service sector.

The specific empirical aims include the following:

- To empirically investigate the nature of the relationship between sense of coherence, work engagement and burnout in relation to wellbeing as demonstrated in a sample of respondents in the South African Public Service.
- To empirically investigate whether differences exist between gender, age, race, marital status, number of years in current position and number of years in public service in relation to sense of coherence, work engagement and burnout.

- Based on the findings of the study to formulate recommendations for both employee wellness in the public service and for possible future research.

1.5 PARADIGM PERSPECTIVES

According to Babbie and Mouton (2009), a paradigm refers to the intellectual climate or different meta-theoretical concepts such as values or beliefs and assumptions underpinning the theory and models that form the context of a research study. The paradigms applicable to this study as well as the meta-theoretical concepts are now briefly explained.

1.5.1 Intellectual climate

Thematically the constructs of sense of coherence, work engagement and burnout were relevant to this study. The literature review was based on employee wellbeing theories and presented within the context of the salutogenic paradigm. The empirical study was presented within the context of the positivist paradigm.

1.5.1.1 Salutogenic paradigm

The salutogenic paradigm relates to the origins of health or wellbeing. According to Antonovsky (1996), the salutogenic paradigm differs from the pathogenic paradigm and suggests that the individual may remain relatively healthy despite the presence of stressors. The salutogenic paradigm refers to the study of personal strengths and weaknesses related to thoughts and actions that are promotive, preventative and therapeutic.

Salutogenesis is considered to be associated with the origins of health and is a construct that describes how the individual manages stress while maintaining an increase in wellbeing and develops personal and social resources that result in coping and growth (Strümpfer, 1990). Strümpfer's (1990) suggested that the salutogenic construct be extended to include both health and strengths and this came to be referred to as fortigenesis (Rothmann, 2003). This concept was refined further by Wissing and Van Eeden (1997) who devised the concept of psychofortology that is based on psychological well-being and includes the origin, psychological wellbeing development and how it can be improved.

The salutogenic and fortigenic paradigm was therefore used as the basis on which to study the constructs of sense of coherence, work engagement and burnout as they relate to the general direction on the eustress–distress scale (Bezuidenhout, 2008; Rothmann, 2002).

For the purposes of this study the salutogenic paradigm was used to investigate the research hypotheses and to explain successful and healthy outcomes; provide information

on the differences between sense of coherence, work engagement and burnout; and highlight that stressors may have constructive consequences (Strümpfer, 1995). According to Viviers and Cilliers (1999), salutogenesis signifies a level of optimal functioning and is used in the study of human functioning and stressors in relation to positive life outcomes. Sense of coherence is a concept that is related to the salutogenic paradigm. Studies conducted in the workplace have found a strong correlation between sense of coherence, work engagement and burnout (Bezuidenhout, 2008; Kossuth & Cilliers, 2002).

1.5.1.2 Humanistic paradigm

The constructs sense of coherence and work engagement are influenced by the humanistic paradigm as it relates to the search for the self as well as the attainment of the self's highest potential (Jenkins, 2001).

Rogers (1959) proposed that humanism is about holding unconditional positive perceptions of others and that individuals have an inherent desire to reach their full potential. Maslow (1943) suggested that the full expression of self-actualisation is associated with psychological, spiritual and social wellbeing (Hanks, 2008).

According to McLeod (2007), humanistic psychology includes the following assumptions:

- People have and exercise free will with regard to choices and have the ability to face the consequences of these choices.
- People are inherently positive and want to contribute to a better world. This implies that people are able to overcome hardship and remain positive.
- Personal growth and fulfilment support the notion of self-actualisation and life satisfaction.
- The importance of subjective and conscious experiences as opposed to the individual's objective reality. This study focused on subjective feelings and perceptions about the individual's work.

Humanistic psychology is based on the multidimensional perspective and with a focus on self-evaluative thoughts, feelings of self-worth, self-acceptance and psychological wellbeing (Coetzee, 2009).

1.5.1.3 *Positivist paradigm*

The empirical review was presented from the positivist paradigmatic perspective. Positive science is defined as an epistemology that describes and predicts the social phenomena and studies regularities and causal relationships between variables (Burrell & Morgan, 1979). Kolakowski (1972) described positivism as including four elements, namely, (i) phenomenalism that involves experience only and does not consider abstractions; (ii) nominalism that includes words, generalisations and abstractions as linguistic phenomena but does not provide new insights; (iii) separation of facts from values; and (iv) the unity of the scientific method.

The positivist paradigm assumes that science quantitatively measures the independent facts regarding a single apprehensible reality (Healy & Perry, 2000). Knowledge is obtained through data that is experienced and verified over time (Guba & Lincoln, 1994). Behaviour is measured directly through the employment of various techniques and uses the data, facts and streams of reality to formulate empirical conclusions that may be used in the generalisation and development of theory (Alvesson & Sköldbberg, 2000; Angen, 2000). According to Krauss (2005), positivist science is in conflict with metaphysics while the goal of knowledge is to describe the phenomena that people experience. Positivism also includes inductive and deductive reasoning and suggests theories that may be tested (Krauss, 2005). Using quantitative measures could lead to relationships being understood by statistical means (Alvesson & Sköldbberg, 2000).

The empirical study involved a quantitative investigation in line with the positivist research paradigm and focused on exploring the relationship between the variables sense of coherence, work engagement and burnout. Statistical techniques were used to obtain quantitative measures of the constructs that had a concrete and objective value. Quantitative research is considered to be objective and independent of individual thought and conclusions about reality are based on observations that may be empirically verified (Schulze, 2003).

1.5.2 Meta-theoretical statements

Meta-theories refer to the descriptions, assumptions, investigations and analysis of the theories underpinning a particular domain or paradigm. Meta-theoretical statements support the research paradigms and identify the particular discipline within the context of which a study will be performed (Babbie & Mouton, 2009). Two meta-theoretical statements are discussed below, namely, (i) industrial and organisation psychology, and (ii) psychometrics.

1.5.2.1 Industrial and organisational psychology

Industrial and organisational psychology is defined as the scientific study of people in their working environment. It includes psychological principles, theory and research related to the work context (Riggio, 2009). Within the field of industrial and organisational psychology research is used as a way in which to expand the knowledge about and understanding of behaviour in the work context and to apply such knowledge in the design and implementation of interventions that may improve work behaviour; the working environment; and the psychological conditions of employees (Bergh & Theron, 2009; Schreuder & Coetzee, 2010). In other words, understanding the interaction between humans and their working environment is of vital importance.

1.5.2.2 Psychometrics

Psychometrics refers to the systematic and scientific measurement of individual differences using a variety of instruments in order to measure constructs such as cognitive ability, personality and other attributes (Foxcroft & Roodt, 2013). Psychometric assessment measures were used in this study to assess sense of coherence, work engagement and burnout.

1.5.2.3 Theoretical models

Theoretical models, based on scientific literature and the empirical findings, were used to describe the constructs sense of coherence, work engagement and burnout in relation to wellbeing.

The following models were used in the research process:

- (a) the wellbeing model referred to as flourishing as described by Keyes (2002)
- (b) the conceptual model of sense of coherence (Antonovsky, 1987)
- (c) the conceptual model of work engagement (Schaufeli & Bakker, 2003)
- (d) the conceptual model of burnout (Schaufeli & Enzman, 1998)

1.5.2.4 Conceptual descriptions

The conceptual descriptions that were of relevance to this study are defined below:

- (a) *Employee wellbeing*

Wellbeing refers to a proactive stance to achieving optimal physical, mental and emotional wellbeing. It goes further than describing health as merely an absence of illness (Ekkerd, 2005). Employee wellbeing is defined as a state in which employees are energetic, motivated, healthy, productive and committed (Rothmann & Rothmann, 2006).

The concept of wellbeing is also referred to as flourishing and is used to refer to individuals who are experiencing high states of wellbeing and mental health (Keyes, 2002; 2005; 2007). Flourishing describes an individual's ability to evaluate their quality of life and consists of two dimensions, namely, (i) feeling good and being satisfied with life or work; and (ii) functioning well, that is, being engaged and self-determined in the work context; confident in one's work; hopefulness and optimism; being resilient at work; finding meaning in work and functioning well in society (Keyes, 2009; Antonovsky, 1996).

This study uses the concepts of sense of coherence, work engagement and burnout in order to contextualise employee wellbeing.

(b) Sense of coherence

Sense of coherence is defined as a global orientation towards an individual's pervasive and persistent feelings (i) of belief that the environmental stimuli are predictable and explicable (comprehensibility); (ii) that the individual possesses the ability to manage the demands imposed by stimuli (manageability); and (iii) that these environmental challenges are worthy of engagement (meaningfulness) (Antonovsky, 1987).

A strong sense of coherence refers to perceptions in terms of which individuals successfully evaluate the environment in order to make sense of complex stimuli. Both personality traits and a unique set of beliefs and attitudes contribute to the way in which an individual comprehends life's stressors and challenges. This serves as the foundation of sense of coherence. Sense of coherence comprises three underlying components, namely, (i) comprehensibility which explains the sense-making ability of stimuli in the environment, (ii) manageability which refers to the coping skills in terms of the demands of the environment, and (iii) meaningfulness in terms of which the individual identifies emotionally with and invests energy in addressing these demands (Antonovsky, 1987).

Sense of coherence is influenced by the salutogenic approach as well as the humanistic paradigm and refers to the individual's ability to make successful life choices, to acquire adaptive coping skills and to grow (Antonovsky, 1996; McLeod, 2007).

Sense of coherence was deemed to be of relevance to this study as it is positively associated with work engagement and also negatively related to burnout (emotional exhaustion and depersonalisation or cynicism) and may thus be used to describe an employee's wellbeing and functioning (Fourie et al., 2007; Levert, Lucas & Ortlepp, 2000).

(c) *Work engagement*

Work engagement is defined as high levels of energy and involvement and includes a positive, fulfilling work-related state of mind measured by vigour, dedication and absorption (Bakker et al., 2008; Schaufeli & Bakker, 2010).

Work engagement describes the individual's work experience as (i) stimulating, energetic and worth investing energy and time into (vigour); (ii) meaningful and worthy of commitment (dedication); (iii) interesting and worth fully focusing on (absorption) (Bakker et al., 2008). Work engagement therefore refers to the energy, involvement and effectiveness that an employee brings to a job.

The study of individual functioning at work may be measured by the work engagement construct and is positively related to job satisfaction and wellbeing or flourishing. Flourishing is related to mental health and describes the experience of positive feelings, for example, job satisfaction and optimal functioning, for example, work engagement (Diedericks, 2012).

Work engagement was therefore deemed to be relevant to the purposes of this study as the theory on work engagement implies that employees may remain healthy and engaged in their work, irrespective of the job stressors (Van der Colff & Rothmann, 2009).

(d) *Burnout*

Burnout may be defined as a persistent, negative, work-related state and is characterised by emotional exhaustion, distress, and lower levels of motivation and reduced levels of self-efficacy. Burnout develops towards the end stage of an individual's inability to cope with on-going stressors and includes dysfunctional attitudes and behaviour at work (Schaufeli & Bakker, 2004; Van der Colff & Rothmann, 2009). According to Schaufeli and Salanova (2014), burnout is a multidimensional construct. It occurs in response to enduring stressors and is associated with outcomes such as exhaustion and fatigue; mental withdrawal or depersonalisation; as well as negative belief or a lack of accomplishment or efficacy.

Burnout was deemed to be relevant to this study as the public sector environment is widely regarded as a stressful working environment which impacts on employees' burnout levels. Previous studies in the public sector suggested that officials with low levels of coping skills

experience average to high levels of burnout (Ahmadi & Jafari, 2013; Bezuidenhout, 2008; Sahu & Yadav, 2013).

1.5.3 The central hypothesis

The following central hypothesis was formulated for the study:

There is a significant relationship between sense of coherence, work engagement and burnout of individuals. Furthermore, the levels of sense of coherence, work engagement and burnout of groups, which differ in terms of gender, age, race, marital status, number of years in current position and number of years in public service, will vary significantly.

1.6 RESEARCH DESIGN

According to Terre Blanche, Durrheim and Painter (2006), a research design is a strategic guide that indicates how the research question will be operationalised in the research implementation. Babbie and Mouton (2009) mentioned that the research design attempts to answer various research questions and suggested that researchers use a combination of methods and procedures. In short, the research design is a plan that provides information on the data collection and data analysis processes that are linked to the research purpose. The research design used in this study is presented below.

1.6.1 Research approach

The study adopted a quantitative research approach to investigating the research hypotheses. According to Strüwig and Stead (2010), quantitative research allows for generalisable and objective data. This study was descriptive in nature as it endeavoured to establish the relationship between sense of coherence, work engagement and burnout in relation to wellbeing. Descriptive studies aim to describe a certain phenomenon or to provide a complete or accurate description of either a situation or relationships (Strüwig & Stead, 2010). However, the study also included explanatory research as it aimed to highlight the links between the variables and to explain what caused the phenomenon.

1.6.2 Research variables

The independent variable is presumed to have a causal relationship to the dependent variable. The dependent variable is thus the result or outcome of the independent variable (Strüwig & Stead, 2010). In this study the independent variables included sense of coherence and work engagement while the dependent variable was burnout. The study endeavoured to measure the direction and strength of the relationship between the

independent variables, namely, sense of coherence and work engagement, and the dependent variable, namely, burnout within the context of wellbeing

A cross-sectional survey design was used to gather the requisite information and to achieve the research objectives. Cross-sectional designs are applicable to simultaneous study groups or subjects that are at various stages of development (Burns & Grove, 1993). The cross-sectional study also provides information on scientific correlations between the variables.

1.6.3 Methods to ensure adherence to ethical research principles

The study was categorised as foundational research and aimed to investigate the relationship between sense of coherence, work engagement and burnout. Accordingly, the study did not focus on the cause and effect aspect of such a relationship (Harry, 2014). In addition, the data was not either manipulated or classified based on the personal beliefs and preferences of the researcher (Harry, 2014).

The data was collected from primary sources through structured questionnaires that were distributed directly by the researcher to the sample of middle managers in the public service organisation.

1.6.4 Reliability and validity

According to Mouton and Marais (1994), the aim of scientific research is to provide a valid and reliable understanding of phenomena. Research must therefore be characterised by both (i) internal validity that refers to accurate and valid findings obtained from the study with regard to a specific reality; and (ii) external validity that refers to findings that are generalisable to and valid in all similar cases (Salkind, 2012).

The internal validity of the study was ensured by the selection of appropriate theories and models during the theoretical review process and also appropriate measuring instruments that had been shown to be valid in previous studies. Archival resources relevant to the aims, objective and problem statement of the study were sourced. In order to ensure the theoretical validity of the study, a detailed literature review was conducted both to investigate relevant theories and models and also to eliminate variables that were confusing by proposing possible alternative hypotheses.

Reliability refers to the use of valid measuring instruments that may be applied to different populations under different conditions and that would produce similar results and conclusions (Salkind, 2012). The researcher adhered to the research design and consulted

similar existing studies (Bezuidenhout, 2008), thus the reliability of this study was enhanced. The validity and reliability of the measuring instruments were ensured by the use of a systematic research methodology.

1.6.5 Unit of study

The unit of analysis is the primary variable that is analysed in a study (Babbie, 1989). For the purposes of this study the unit of analysis comprised a group of middle managers in a public sector organisation. The sub-group within the study was the socio-demographic variables (gender, age, race, marital status, number of years in current position and number of years in public service) that were included in the assessment of the relationship between sense of coherence, work engagement and burnout (Harry, 2014).

1.7 RESEARCH METHODOLOGY

The research method used comprised a literature review which was conducted in order to conceptualise the relevant concepts and an empirical study which was conducted in order to operationalise the variables included in the study.

Phase 1: Literature review

Step 1: A literature review was conducted on the constructs of sense of coherence, work engagement and burnout.

Step 2: A conceptual integration of the constructs of sense of coherence, work engagement and burnout was performed.

Step 3: An explanation was presented of the practical implications of the theoretical relationship of sense of coherence, work engagement and burnout for employee wellbeing interventions in the public sector environment.

1.7.1 Research method

The research method is illustrated in Figure 1.1. It consisted of both a literature review to conceptualise the relevant concepts and an empirical study to operationalise the variables included in the study (Takawira, 2012).

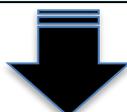
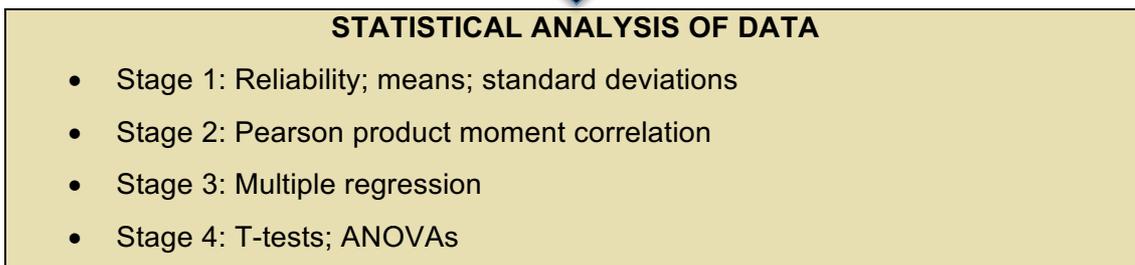
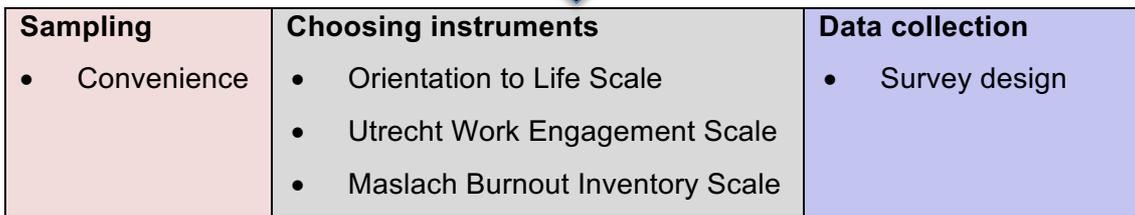


Figure 1.1. Flow diagram of research method

1.7.1.1 Phase 1: Literature review

The literature review focused on exploring and conceptualising the constructs sense of coherence, work engagement and burnout in relation to wellbeing. The general aim of the literature study was to establish a theoretical link in the relationship between sense of coherence, work engagement and burnout and to identify whether there were any differences between the socio-demographic groups (gender, age, race, marital status, number of years in current position and number of years in public service). These relationships were explored in order to determine the implications of the theoretical relationship for employee wellbeing programmes.

1.7.1.2 Phase 2: Empirical study

The empirical study was presented in the form of a research article (chapter 3). The research article (chapter 3) described the core focus of the study, background to the study, trends arising from the literature review, potential value added by the study, the research design (research approach and research method), research results as well as a discussion of the results, conclusions, limitations and recommendations for practice and future research. Chapter 4 integrated the research study and discussed the conclusions, limitations and recommendations in greater detail.

1.8 CHAPTER LAYOUT

The study is divided into the following chapters:

1.8.1 Chapter 1: Scientific orientation to the research

This chapter introduces the research topic and discusses the variables investigated. The chapter also discussed the research design as well as the research methodology used to collect and analyse the requisite data.

1.8.2 Chapter 2: Literature review

Chapter 2 presents the literature review on sense of coherence, work engagement and burnout in relation to employee wellbeing. This chapter contained a conceptual analysis of the research variables, namely, sense of coherence, work engagement, and burnout. In addition, the practical implications of the relationship between sense of coherence, work engagement, and burnout for employee wellbeing were discussed.

1.8.3 Chapter 3: Research article

This chapter consisted of a research article. The chapter presented the research methodology used as well as the data collection and data analysis processes. The measuring instruments used were also discussed. Statistical information on the data analysis relating to the research objective and hypotheses was presented.

1.8.4 Chapter 4: Conclusion, limitations and recommendations

The final chapter contained an integrated discussion on the results of the study as well as the conclusion(s) drawn from such results. Recommendations for the specific organisation and also the public service in general are presented in the chapter. In addition, the limitations of the study are discussed as well as recommendations for future research in the field of Industrial and Organisational Psychology.

1.9 CHAPTER SUMMARY

This chapter presented the research problem. This was followed by a discussion on the background to the research problem and culminated in the formulation of the problem statement. The research aims, research design and methodology used were outlined, as was the chapter outlay.

CHAPTER 2

LITERATURE REVIEW: SENSE OF COHERENCE, WORK ENGAGEMENT AND BURNOUT

This chapter conceptualises the constructs sense of coherence, work engagement and burnout in relation to employee wellbeing. Relevant theoretical models are used to explain the constructs and the relationship between the constructs in context.

2.1 EMPLOYEE HEALTH AND WELLNESS

Employee wellbeing refers to employees who are functioning optimally; experience positive affect, are engaged and experience job satisfaction as opposed to those who do not function optimally and who are experiencing job dissatisfaction (Diedericks, 2012).

The debate on defining and describing employee wellbeing is based on various perspectives and foundations, namely, (i) flourishing individuals (Keyes, 1998); (ii) positive functioning (Jahoda, 1958); (iii) psychological wellbeing (Ryff, 1989); (iv) self-determination theory (Ryan & Deci, 2001); (v) subjective wellbeing (Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi & Biswas-Diener, 2010).

The concept wellbeing or flourishing is used to describe mental health and includes both hedonic wellbeing (feeling well) and eudaimonic wellbeing (functioning well) (Keyes, 2009). Keyes' model of wellbeing is characterised by patterns of positive feelings and positive functioning within the context of subjective wellbeing and includes three dimensions, namely, emotional wellbeing (positive affect), psychological wellbeing (engaged and purposeful) and social wellbeing (socially accepting and positive relations with others). In other words, wellbeing means that individuals are experiencing positive feelings and are functioning effectively thus leading to life satisfaction (Huppert & So, 2013).

Flourishing is positioned at one end of a continuum and ill-being or languishing at the other end whilst moderate levels of wellbeing are situated towards the middle (Huppert, 2009; Huppert & So, 2013; Keyes, 2002; Keyes, 2009; Keyes & Simoes, 2012). Individuals who are flourishing experience high levels of positive affect and function optimally, both psychologically and socially (Lyubomirsky, King & Diener, 2005). Mental ill-health or ill-being is referred to as languishing and may or may not include mental disease. Mental ill-being is characterised by negative outcomes such as emptiness, stagnation and a life of despair (Keyes, 2002; 2007).

The concept of flourishing means that such an individual lives within an optimal range of

human functioning that predicts goodness, generosity, growth and resilience (Fredrickson & Losada, 2005; Menk, Howerter, Bell & Jackson, 2010). Flourishing employees thrive in terms of health; in their relationships with others; experience higher levels of wellbeing and positive functioning; have lower absentee rates; and experience greater job satisfaction (Diedericks, 2012; Lyubomirsky et al., 2005).

Employee wellbeing relates to subjective wellbeing that refers to the evaluation an individual makes about the quality of his/her life (Keyes et al., 2002). The variable sense of coherence is associated with wellbeing and refers to an individual who is characterised by subjective perceptions and an enduring and positive belief that he/she possesses the ability to cope with stressors in the environment (Antonovsky, 1993).

Employee wellbeing includes a strong sense of coherence and refers to a positive orientation towards work and that in turn, results in positive outcomes such as high levels of work engagement and lower levels of burnout than may otherwise have been the case (Hakanen & Roodt, 2010). The relationship between employee wellbeing and sense of coherence are associated with positive emotions, optimal functioning, and resilience in stressful circumstances (Keyes, 2007; Strümpfer, 1990).

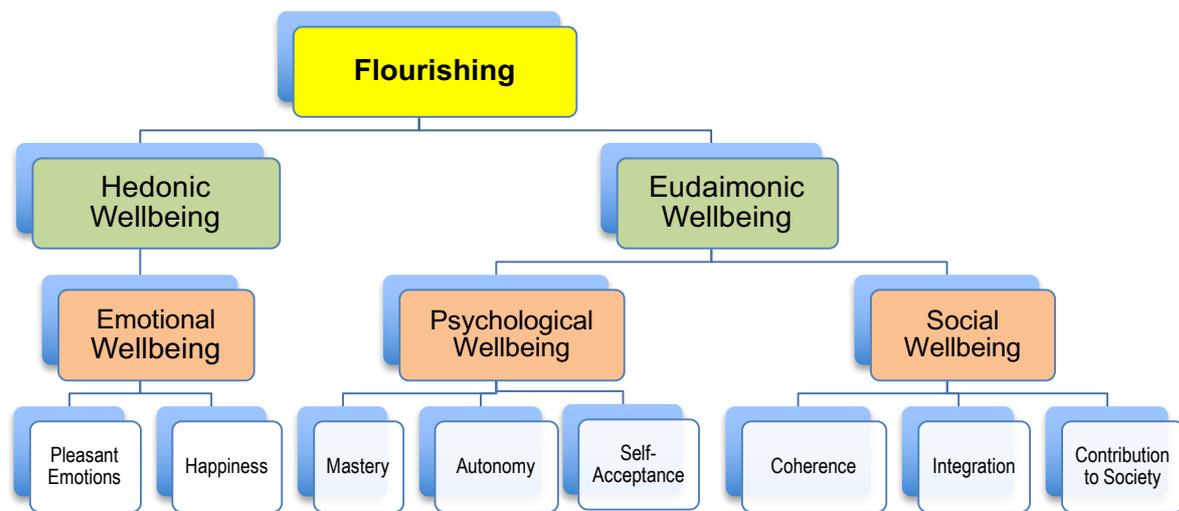
Studying the theoretical model of flourishing or wellbeing is therefore relevant to employee wellbeing as it relates to individuals experiencing positive feelings and functioning optimally while remaining healthy. This implies positive outcomes for both the individual and the organisation.

2.1.1 Flourishing as an employee wellbeing concept

For the purposes of this study, the term flourishing is used as an employee wellbeing concept as it describes the employee's positive feelings and optimal functioning in the workplace and relates to individual outcomes such as job satisfaction and organisational outcomes, for example, increased work performance and low absenteeism (Diedericks, 2012). Flourishing is influenced by positive work experiences and activities in which employees are engaged in that result in work engagement and job satisfaction (Armstrong, 2006; Sheldon, Abad, Ferguson, Gunz, Houser-Marko, Nichols & Lyubomirsky, 2010).

Flourishing is considered to be a mental state and is therefore developed by the individual concerned (Keyes, 2005). As depicted in Figure 2.1, Keyes's (2007) mental health model relates to wellbeing and focuses on the flourishing of individuals.

Figure 2.1. The hierarchical relationship of flourishing and wellbeing



Source: Adapted from Lamers, Westerhof, Bohlmeijer, Ten Klooster and Keyes (2011, pp. 99–110).

As depicted in Figure 2.1, the concept flourishing includes two dimensions, namely, hedonic wellbeing and eudaimonic wellbeing with each contributing to the individual's wellbeing (Gillet, Fouquereau, Forest, Brunault & Colombat, 2011; Huppert & So, 2013; Ryan, Huta & Deci, 2008) and happiness (Keyes & Annas, 2009). The hedonic dimension refers to emotional wellbeing and includes aspects of happiness and life satisfaction, as well as balancing positive and negative influences over a period of time (Keyes, Wissing, Potgieter, Temane, Kruger & Van Rooy, 2008). Hedonism involves positive emotions and represents human concerns that increase the level or duration of optimistic, enjoyable, positive feelings while also reducing the amount or duration of negative or unpleasant feelings (Keyes et al., 2008). In addition, hedonism may also include reducing agony, living a life of self-indulgence and the possible exploitation of others (Vella-Brodrick, Park & Peterson, 2009).

The eudaimonic dimension, which includes psychological and social wellbeing, focuses on living well and includes truthfulness; significance; self-actualisation; unique personal values; and the self-realisation of goals (McMahon & Estes, 2011). The psychological wellbeing component refers to individuals who are self-accepting; function autonomously; live purposefully; manage their personal environments; strive to maximise their own potential and maintain positive relations with others (Ryff, 1989; Ryff & Keyes, 1995). On the other hand, social wellbeing refers to individuals who are socially accepting of diverse people; have a sense of belonging; view social processes as meaningful; experience their own activities as being of value and useful (Ryff, 1989; Ryff & Keyes, 1995). Eudaimonic

wellbeing links mental health to human potential and gives rise to optimal functioning (Keyes et al., 2008).

Positive psychologists agree that both the hedonic and eudaimonic wellbeing dimensions are important contributory factors in understanding flourishing and promoting wellbeing (Henderson & Knight, 2012). Both feeling and functioning well result in flourishing behaviour and indicate the presence of positive mental health in contrast to languishing that refers to ill-health (Keyes, 2005).

In this study, the concept flourishing was used as a theoretical framework in understanding individual wellbeing in relation to the constructs sense of coherence, work engagement and burnout (Keyes, 2002). Keyes's (2002; 2005; 2007) mental health continuum model operationalises the functioning of positive health and the wellbeing of individuals and consists of three dimensions; namely, emotional wellbeing, psychological/personal wellbeing, and social wellbeing (see Figure 2.1).

The positive outcomes of flourishing are identified with both low levels of major depressive incidents and work impairment as well as high levels of life satisfaction, effective learning, improved and healthy relationships, greater job satisfaction and growth (Keyes, 2004; Keyes, 2009; Seligman, 2011). Signs of flourishing behaviour at work include thriving at work; being happy; intrinsically motivated; experience success and being healthy; and continuous learning and engagement (Bono, Davies & Rasch, 2012). In addition, flourishing refers to a state of being well-adapted and well-functioning as opposed to languishing that includes feelings of emptiness, stagnation and living a shallow life of despair with little or no meaning (Keyes, 2002). Employees with a high level of emotional wellbeing experience job satisfaction while work engagement is an indicator of positive psychological wellbeing (Rothmann, 2013).

A study conducted in the United States of America found that adults who are mentally healthy (free from a mental disorder of a 12-month duration) and experience human flourishing demonstrate the lowest absentee rate from work; manifest the healthiest psychosocial functioning and the lowest risk of cardiovascular disease; and experience the fewest health limitations (Keyes et al., 2008). In South Africa studies show that flourishing employees engage in positive and successful behaviour and are achievement orientated (Seligman, 2008).

The work context has a profound influence on the psychological outcomes of individuals while personal resources such as a strong sense of coherence may positively influence the

way in which employees interact in the work environment (Demerouti, Bakker, Nachreiner & Schaufeli, 2001; Fernet, Guay, Senécal & Austin, 2012). A study on the psychological functioning, personal resources and mental wellbeing of public service managers was therefore deemed to be crucial as they are expected to perform optimally in order to implement the policies and programmes of government.

Current research on the health and wellbeing of ordinary employees is still focused primarily on stress, burnout and disengagement while the topic of managerial wellbeing receives less attention (Legare & Gelman, 2009). On the other hand, much of current research is focusing on the positive psychological attributes of employees (Seligman, 2011; Seligman & Csikszentmihalyi, 2000). Flourishing is therefore regarded as an important concept in the workplace because flourishing individuals demonstrate the healthiest level of psychosocial functioning; experience the fewest health problems and lowest absenteeism; and also experience high levels of job satisfaction and work engagement (Diedericks, 2012). Job satisfaction refers to an individual's general perception of his/her job and is therefore related to the concept of sense of coherence in terms of which employees perceive their work as clear, within their control and having value in their lives (Robbins, Judge, Odendaal & Roodt, 2009). For work to become more meaningful, full engagement in the work is required and includes cognitive (perception of organisation, management, working conditions), emotional (feelings towards the leadership and the organisation) and physical capabilities (activities related to fulfilling the work-related role) (Kahn, 1990).

In addition to the individual's mental state, job related resources such as emotional, physical and cognitive resources also have an impact on the level of work engagement and may give rise to optimal functioning and positive mental states (May, Gilson & Harter, 2004). Positive feelings and positive functioning are crucial to both the employer and employee with flourishing organisations being characterised by working environments that encourage and promote employee wellbeing as this is seen as one of the preconditions of employee as well as workplace success (Cameron, Dutton & Quinn, 2003; Fredrickson, 2004; Keyes & Haidt, 2003; Seligman & Csikszentmihalyi, 2000).

2.1.2 The context of the South African public sector

Since 1994, the public service in South Africa has experienced frequent incidences of labour unrest as officials express their dissatisfaction with their jobs (Van der Heijden & Mlandi, 2005). With the inception of the democratic government in 1994, public expectations intensified, thereby creating pressure and anxiety among the public service officials with a resultant increase in challenges, frustrations and tensions (Hornbaek, 2006; Nilsson, 2010).

According to Burke (2001), public sector employees experience low levels of job and life satisfaction that are the main reasons for inefficient service delivery. Employee wellbeing and distress remain a pervasive health problem and the public service, with its demanding working environment, is not immune to such issues (Luddy, 2005).

The public service requires competent and motivated employees who are committed to efficient service delivery through the provision of access to government services and programmes (Issa, 2011). As an employer, the public service aims to have competent and committed public servants who are able to render an effective service to the public (DPSC, 2010). Based on the theory that suggests that the public sector environment is a stressful environment that leads to burnout (Serin & Balkan, 2014), it is therefore envisioned that an effective public service should comprise of officials who use their personal resources to increase their level of engagement in their work; are resilient in the midst of challenges; and are able to cope with the stressors in their working environment (Hobfoll, Johnson, Ennis & Jackson, 2003; Williams, Wissing, Rothmann & Temane, 2009).

The wellbeing of an employee may be directly influenced by the culture of the organisation while it is reported that healthy employees may have a positive impact on the organisational culture (Attridge, 2005). A survey conducted in the United Kingdom among public service officials found that work-related stress has a negative impact on employee wellbeing (Dudman, Isaac & Johnson, 2015). Reduced budgets and staff members, high caseloads and red tape are all examples of the job stressors that impact on the wellbeing states of civil servants. Dealing with public expectations and demands and working in an environment where the job resources are weak or insufficient cause chronic stress and lead to ill-health and burnout among officials (Borg & Riding, 1991, Kyriacou, 1987; Laughlin, 1984). This burden of ill-being among officials is referred to as languishing and often has negative social outcomes such as high levels of absenteeism and staff turnover (Keyes, 2002).

As reported in a study conducted by the Public Service Commission (2010), the public service is burdened by high absenteeism and staff turnover rates. Between 1999 and 2000 63% of the public servants on a national level took sick leave with an average of 11,86 days per person. Rabe (2001) reported that employees with mental and emotional issues accounted for 23% of the sick leave taken. In addition, a lack of retention strategies as a result of budgetary constraints contributed to the high staff turnover rate. The greatest mobility at the national level is at the managerial level (68%) with the majority of such mobility being attributed to the internal movement of managers and professionals.

It has been reported that certain public sector occupations are more stressful compared to others, for example, the teaching profession (Vazi, Ruiters, Van den Borne, Martin, Dumont & Reddy, 2011), and that psychological stress is particularly prevalent (Dalgard, Mykletum, Rognerud, Johansen & Zahl, 2007).

Accordingly, under the South African government's transformation programme, the Department of Public Services and Administration introduced employee wellbeing programmes in order to improve the working environment and thus enable employees to perform optimally. Government, as an employer, hopes that the employee wellbeing programmes will address the low morale among public servants; reduce absenteeism, staff turnover and tardiness; and enhance work performance and service delivery (Rajin, 2012). Studies on employee wellbeing show that programmes designed to enhance employee wellness may achieve a 25 to 30% reduction in medical and absenteeism costs in an average of three to six year period (The Citizen, 29 September 2009).

The fundamental goal of the public service is to ensure that government's policies and programmes are implemented and, in this context, the behaviour and work performance of public officials are therefore extremely important (Rajin, 2012). For employees to render an efficient and effective service to the public it is vital that the functioning and wellbeing of these officials are not ignored.

2.2 SENSE OF COHERENCE

This section conceptualises and defines the concept of sense of coherence. The section also discusses the theories and dimensions associated with sense of coherence. Demographic variables and their possible influence on sense of coherence are also discussed.

2.2.1 Conceptualisation of sense of coherence

Sense of coherence is conceptualised in this study as it contributes positively to an individual's coping ability and wellbeing (Fourie et al., 2007). Studies have found that higher levels of sense of coherence were associated with lower levels of stress (Ortlepp & Friedman, 2002).

Sense of coherence is the primary construct in salutogenesis and is aimed at understanding how people remain healthy amid exposure to stressors (Antonovsky, 1979). A high level of sense of coherence describes a coping resource that mediates stress by assessing the stressor both cognitively and emotionally (Strümpfer, 2013). According to Viljoen (2012),

stress is considered to be a dynamic and manageable experience that initiates the individual's coping strategies and results in positive and effective functioning.

Sense of coherence is an indication of the individual's level of cognitive functioning and refers to his/her evaluation and understanding of environmental stimuli as being clear, ordered and structured (Antonovsky, 1987). The salutogenic paradigm proposes that individuals, groups and organisations possess the ability, resources, competencies and strengths that impact on the sense of coherence where challenges are deemed to be comprehensible, manageable and meaningful (Lindstrom & Erikson, 2009; McComb, 2012). According to the salutogenic approach, challenges such as stress, uncertainty and trauma are considered to be an inevitable aspect of life and, in particular, work life (Barnard, Peters & Muller, 2010; Coetzee & Cilliers, 2001; Oosthuizen & Van Lill, 2008). Antonovsky (1979) argued that individuals are able to manage and control such challenges and that a strong sense of coherence will enable them to rise above difficult circumstances.

Sense of coherence is formed by life experiences and is shaped by generalised resistance resources and enables the individual to avoid or fight a range of stressors, thereby preventing tension from developing into stress (Strümpfer, 2013). Generalised resistance resources influence the strength of the sense of coherence. A strong sense of coherence will develop over time if the generalised resistance resources provide repeated and on-going experiences; and if there is an overload and underload balance that result in empowering outcomes for the individual (Rothmann, Jackson & Kruger, 2003). According to Rothmann et al. (2003), a weak sense of coherence is influenced by experiences that are unpredictable, uncontrollable and uncertain. This means that a strong sense of coherence may be developed if the individual initiates empowering strategies to create meaningful and coherent life experiences. In addition, the sense of coherence may also be strengthened when individuals solve their problems by using their personal resources and where the results lead to positive outcomes, for example, improved health and wellbeing as well as higher quality of life that may otherwise have been the case (Lindstrom & Erikson, 2009).

Van der Colff and Rothmann (2009) mentioned that a person with a strong sense of coherence has more than one coping pattern but uses an appropriate coping strategy to deal with a specific stressor being faced. A range of coping strategies and the flexibility to implement the most appropriate strategy at any given time are critical for a strong sense of coherence and also provide an indication of the individual's cognitive competence in responding to stressors (Antonovsky, 1987).

According to Fourie et al. (2007), sense of coherence is considered to be a predictor of work perceptions and individuals who possess a strong sense of coherence are more likely to view environmental stimuli as structured and manageable. Such individuals will more likely feel that they possess the necessary resources to cope effectively with these stimuli compared to those with a low sense of coherence.

2.2.2 Definition of sense of coherence

Sense of coherence was initially defined as a global orientation that reflects a pervasive, enduring and dynamic feeling of confidence and that one's internal and external environments are predictable and that there is a high probability that everything will work out as expected (Antonovsky, 1979). Antonovsky (1987) refined the definition of sense of coherence as a global orientation that reflects an individual's pervasive, enduring and dynamic feelings of a) confidence that the internal and external stimuli in the environment are structured, predictable and explicable (comprehensibility); b) that the individual possesses the resources required to meet the demands posed by these stimuli (manageability), and c) that these demands are challenges which are worthy of both investment and engagement (meaningfulness) (Antonovsky, 1987, p. 19). On the other hand, sense of coherence is described by Shapiro, Schwartz and Santerre (2002) as a stable personality characteristic that impacts on the way in which an individual perceives and makes sense of the world. Thus, sense of coherence refers to an individual's perceptions, behaviour and coping skills in relation to a demanding and challenging environment while remaining healthy under such circumstances (Harry & Coetzee, 2013; Louw, Mayer & Baxter, 2012).

Sense of coherence is therefore referred to as the way in which individuals evaluate and understand their environment, how they make sense of complex stimuli in the environment, and how they respond to these complex stimuli (Antonovsky, 1987). A strong sense of coherence provides individuals with the ability to evaluate and control their environment in such a way as to ensure meaningful and appropriate action (Barnard et al., 2010; Van Schalkwyk & Rothmann, 2008). Sense of coherence is considered to be a personal resource that allows the individual to respond with resilience to stressful situations and also protects the individual against burnout (Harry & Coetzee, 2011). Sense of coherence therefore relates to individual differences and the way in which complex situations are perceived and, ultimately, responded to.

2.2.3 Theory of sense of coherence

The salutogenic paradigm proposes that individuals, groups and organisations possess abilities, resources, competencies and strengths which impact on sense of coherence where challenges are considered comprehensible, manageable and meaningful (Lindstrom & Erikson, 2009; McComb, 2012). Sense of coherence is the primary construct in salutogenic theory while salutogenesis is regarded as the basis for successful coping of stressors while remaining healthy (Antonovsky, 1979). According to the salutogenic approach, challenges such as stress, uncertainty and trauma constitute an inevitable part of life and in particular, work life (Barnard et al., 2010; Coetzee & Cilliers, 2001; Oosthuizen & Van Lill, 2008). According to Antonovsky (1979), individuals possess the ability to manage and control these challenges while those who rise above difficult circumstances do so as a result of a strong sense of coherence.

According to Strümpfer (1990), sense of coherence is based on continuous patterns of evaluation formed by perception, memory, cognitive processing and affect. Furthermore, sense of coherence results in stable behaviour based on the experience of success after coping strategies have been applied to a variety of situations (Cloete & Stuart, 2003).

A strong sense of coherence is developed by: (i) appraisal during which the individual defines the stimulus as a stressor; (ii) the assessment of the stressor as manageable with the individual having the confidence to use his/her resources in order to cope with the stressor effectively; (iii) defining the problem by possessing the cognitive and emotional capability as well as the willpower required to confront the problem directly and iv) reappraisal, reflection, requesting feedback and dealing with negative criticism (Antonovsky, 1979; 1987; 1991; 1993).

The generalised resistance resources which impact on the strength of the sense of coherence imply that individuals possess both the internal and external resources required to manage life and that a strong sense of coherence may be developed if individuals invest in strategies designed to create meaningful and coherent life experiences (Antonovsky, 1987). Generalised resistance resources are prevalent in the workplace and include material resources namely money; cognitive-emotional-intrapersonal resources such as knowledge, intelligence and ego identity; value attitudinal resources for example rational and flexible behaviour; farsighted, interpersonal-rational resources such as social support; and macro-social-cultural resources that include cultural norms and rules that dictate societal behaviour (Cilliers & Kossuth, 2002).

Eriksson (2007) argued that the main focus is not whether resources are present or not but rather on being able to identify, use and to re-use such resources in appropriate circumstances. Accordingly, an individual with a strong sense of coherence will have the ability to use the generalised resistance resources to cope effectively with a variety of stressors (Strümpfer, 1995). People possess a stronger sense of coherence when they are able to use their developmental skills and available resources to resolve problems in a way that yields positive outcomes, for example, improved health, enhanced wellbeing and better quality of life (Lindstrom & Erikson, 2009).

2.2.4 Dimensions of sense of coherence

According to Barnard et al. (2010), sense of coherence comprises the following three dimensions, namely:

2.2.4.1 Comprehensibility – refers to the constructive cognitive functioning that processes environmental stimuli as logical and constructive and is used for rational decision-making. A high comprehensibility refers to an understanding that the environmental stimuli are ordered, structured and clear compared to chaos and disorder (Viljoen, 2012) while low comprehensibility refers to an individual experiencing life as both unpredictable and chaotic (Antonovsky, 1984).

2.2.4.2 Manageability – refers to the individual's perception that his/her personal resources are adequate to respond to stressors and challenges. Feelings of helplessness are associated with low manageability whereas a strong sense of coherence is an indication that life is neither unmanageable nor overwhelming (Antonovsky, 1984).

2.2.4.3 Meaningfulness – refers to the feeling that life makes sense and that it is worthwhile to address and resolve the challenges that arise. This is an indication of the level of commitment of an individual to various life areas as well as having the ability to influence daily experiences and their outcomes (Van der Westhuizen, De Beer & Bekwa, 2013). A high sense of meaningfulness reflects high levels of emotional wellbeing (Antonovsky, 1984). A high sense of meaningfulness is related to the belief that life makes sense both on an emotional and a cognitive level (Sullivan, 1993).

These three dimensions provide an understanding of how the individual perceives and understands the environment; copes and responds to challenges; and ascribes meaning and purpose to his/her experiences (Johnston, De Bruin, Geldenhuys, Gyorkos, Massoudi &

Rossier, 2013). Strümpfer (2013) reported that, in the work context, the variables that sustains the development of a sense of coherence include substantive complexity which includes work-load balance and is linked to the comprehensibility dimension; job security which is associated with the predictability and manageability dimension; and social relations within the work group which contribute to the meaningful dimension. Vogt, Jenny and Bauer (2013) argued that the development of comprehensibility, manageability and meaningfulness is affected by individual characteristics, namely, personality, experiences, characteristics in the working environment for example work-related structures and, processes which are explained by the generalised resistance resources theory and impact on the level of sense of coherence.

2.2.5 Socio-demographic variables influencing sense of coherence

According to Strümpfer (1990), sense of coherence is universally appropriate in terms of demographic variables, for example, gender, social class, region and culture. Demographic and social variables play an important role and are known to influence an individual's health and wellbeing (Waitzkin, 1983). This study explored the relationship between sense of coherence and the socio-demographic variables such as gender, age, race, marital status, number of years in current position and number of years in public service.

2.2.5.1 Gender

According to Antonovsky (1991), significant scores in the total sense of coherence scores may be the result of gender differences. He reported that, in nine of the studies he conducted, men had a significant higher sense of coherence compared to women. Similar results were reported by Anson, Paran, Neumann and Chernichovsky (1993), Larsson and Kallenberg (1996), and Patrick (2011). Other studies found that the scores for men were not significantly higher than those of women (Antonovsky, 1991; Lindstrom & Eriksson, 2009). Antonovsky (1991) also found in two of his studies, the scores for women were not significantly higher than those of men. On the other hand, studies conducted using Finnish respondents found limited difference between male and females (Volanen, Lahelma, Silventoinen & Suominen, 2004) while other studies found no differences in terms of gender on the sense of coherence scale (Van der Westhuizen et al., 2013; Van Schalkwyk & Rothmann, 2008).

2.2.5.2 Age

Sense of coherence develops over the individual's lifespan, stabilises from the age of 30 onwards and is known as "age hypothesis" (Antonovsky, 1987; Eriksson & Lindström, 2005).

According to Feldt, Leskinen, Kinnunen and Ruoppila (2003), sense of coherence develops in early adulthood and also during the phase in which the individual is exposed to the world of work. Psychological stability, independence and the formation of a sense of identity are also experienced during this early adulthood phase (Antonovsky, 1987; Antonovsky & Sagy 1986). However, other researchers argue that sense of coherence is not stable over the adult lifespan (Eriksson & Lindstrom, 2005; Wainwright et al., 2007).

The reported stability of the sense of coherence from 30 years onwards was not confirmed in the studies conducted by Van Schalkwyk and Rothmann (2008) although they did find that the mean sense of coherence in their sample levelled off above 50 years of age, probably because people in this age group have learnt to develop coping skills in dealing with the challenges of life.

Age is also strongly linked to tenure and sense of coherence. Younger employees are reported to enjoy more social support from friends compared to older employees (Aust, 2010). Older persons are considered to possess a stronger sense of coherence compared to younger individuals as their personality and characteristics have developed and become established while their view of the world is also more meaningful, predictable and manageable compared to that of their younger counterparts (Bezuidenhout, 2008; Feldt, Leskinen, Koskenvuo, Suominen, Vahtera & Kivimaki, 2011).

Barnard (2013) argued that different studies have reported varying results in terms of the theoretical assumption underpinning the stability of sense of coherence during the adult lifespan and it is therefore recommended that further research be conducted into the relationship between sense of coherence and age.

2.2.5.3 *Race*

Studies show varying results in the level of sense of coherence between the different racial groups. Establishing salutogenic functioning differs between the various cultural and language groups based on the significant differences in the factor structure of the sense of coherence between whites and the other population groups (Breedt, Cilliers & Visser, 2006). The validity and reliability of the 13-item sense of coherence measuring scale has been shown to be significantly different between the different population groups as a result of language differences (Naaldenberg, Tobi, Van den Esker & Vaandrager, 2011).

Mayer (2011) found higher sense of coherence scores between black and Indian managers compared to between Afrikaans and English speaking whites and German managers. Barnard et al. (2010) reported that blacks and mixed race employees demonstrated

significantly higher sense of coherence scores compared to a sample of white and Indian employees. Studies conducted by Van der Westhuizen et al. (2013) related to the sense of coherence scale reported significantly higher scores among the coloured respondents compared to the black and Indian groups and also that the white respondents scored significantly higher than the Indian respondents but not the black respondents. On the other hand, studies conducted by Gropp, Geldenhuys and Visser (2007) found that white respondents scored higher on comprehensibility and meaningfulness as well as the total sense of coherence compared to their black counterparts.

It is clear from these varying research results that there is an on-going need to study the relationship between sense of coherence and population groups in South Africa (Barnard, 2013; Van der Westhuizen et al., 2013).

2.2.5.4 Marital status

In her studies on sense of coherence, Harry (2011) reported that the respondents in the marital group significantly differed from those in the other marital status groups and also that the widowed participants scored significantly higher than the divorced, single and married participants. In addition, the divorced respondents scored significantly lower than the other groups.

2.2.5.5 Number of years in current position

There appears to be a dearth of studies on whether there are any differences in terms of the number of years respondents have been in a particular position in relation to their level of sense of coherence. Studies conducted by Horn (2014) included the category “years in position” as part of the demographic data although this category was excluded in the investigation into the role of socio-demographic variables in sense of coherence. This therefore highlights the need to investigate whether there are differences between the number of years employees have been in their current positions and their level of sense of coherence.

2.2.5.6 Number of years in public service

There also appears to be limited studies on whether there are any differences in the number of years spent in public service in relation to the level of sense of coherence. However, Aust (2010) found a strong positive correlation between the period of working for the current employer and sense of coherence as well as a strong and significant relationship between employees working on a full-time basis and sense of coherence.

There is clearly an on-going need to investigate whether there are differences between the number of years employees spend with one employer and their level of sense of coherence, especially in the public service where the work environment includes job security together with an inflexible organisational culture.

2.3 WORK ENGAGEMENT

This section conceptualises and defines the concept work engagement. It also discusses the theories and dimensions associated with work engagement, and explores socio-demographical variables and their possible impact on work engagement.

2.3.1 Conceptualisation of work engagement

Work engagement was conceptualised in the study as it is associated with both wellbeing and sense of coherence while a strong sense of coherence is positively related to work engagement and negatively related to burnout. Burnout and work engagement represent opposite loadings of the wellbeing factor (Fourie et al., 2007).

The 21st century has given rise to numerous challenges in the global economy and thus companies require employees who are both psychologically connected and who are able to use their full capabilities in their work. This means that work engagement plays a crucial role in ensuring that employees perform optimally and therefore that companies meet their objectives.

The development of positive psychology has seen an increase in the study of the concept of work engagement. Work engagement is regarded as a positive affective-motivational state in employees (Freeney & Tiernan, 2006; Patrick, 2011). Work engagement is also based on the salutogenesis paradigm that focuses on the reasons why the majority of people thrive and remain healthy despite being exposed to challenges and difficulties (Roothman, 2010; Roothman, Kirsten & Wissing, 2003).

Work engagement as a form of mental energy has developed as the opposite of burnout. The concept was first used in the workplace to refer to the mental capital that encompasses the cognitive and emotional strengths that are critical for economic survival (Schaufeli & Salanova, 2014). Work engagement, under the positive psychology paradigm, has become an increasingly popular field of study as it aims to study human strengths and optimal functioning as well as to predict positive employee and organisational outcomes (Kong, 2009; Roothman, 2010; Schaufeli & Salanova, 2014).

The importance of work engagement reflects the role of the individual's cognitive, emotional and physical states and is closely associated with job involvement and dedication or meaningfulness (May et al., 2004).

2.3.2 Definition of work engagement

Work engagement is defined as elevated levels of energy and involvement and refers to a positive, fulfilling, work-related state of mind which is characterised by vigour, dedication and absorption (Bakker et al., 2008; Geldenhuys, Laba & Venter, 2014; Schaufeli & Bakker, 2010). Patrick (2011) defined work engagement as an energetic state of being that is characterised by dedication and confidence to excellent work performance.

Schaufeli and Bakker (2004) described work engagement as a positive state of mind. Work engagement is seen as a pervasive, affective and cognitive state and is not directed at any object, individual, event or behaviour (Bezuidenhout & Cilliers; 2010; Schaufeli & Bakker, 2003). In other words, work engagement refers to employees experiencing their work as inspiring, energetic, important, meaningful, exciting and captivating.

2.3.3 Theory of work engagement

The concept of work engagement may be placed in context by studying the job characteristics as depicted by the Job Demands-Resources model (Bakker & Demerouti, 2007). It is associated with employee wellbeing (Demerouti et al., 2001). Work engagement is realised when the individual experiences adequate job resources that exceed the job demands (Schaufeli & Bakker, 2004). Bezuidenhout (2008) suggested that the following job resources have an impact on work engagement in the workplace, namely, sustainable and balanced workload; autonomy and control; acknowledgment and reward; support from colleagues; fairness and respect. Schaufeli and Salanova (2014) argued that, despite the fact that work engagement is strongly and consistently associated with job resources, job demands, such as work over-load, deadlines and responsibility, may also initiate work engagement as job demands have the potential to create both growth and accomplishment.

In addition to the study of job resources and work engagement, the role of personal resources has also been reported on during investigations into the concept of work engagement (Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009). Personal resources refer both to areas of the self that are linked to resilience and the individual's ability to successfully control and influence his/her environment (Hobfoll et al., 2003). Other personal resources such as dispositional optimism, which refers to general expectations that good outcomes will occur in life, as well as other orientations and personality characteristics, such

as sense of coherence, emotional stability and conscientiousness, are positively associated with work engagement (Fourie et al., 2007; Mostert & Rothmann, 2006; Wrosch & Scheier, 2003). Individuals who possess effective coping strategies, for example, problem solving skills and who perceive challenges in a positive way are more likely to experience work engagement compared to those with less effective coping skills and who do not experience challenges in a positive way (Rothmann, Jorgensen & Hill, 2011).

Research shows that there are two perspectives to describing the concept of work engagement (Bezuidenhout & Cilliers, 2010; Schaufeli & Salanova, 2014). According to Maslach, Jackson and Leiter (1996) the first such perspective considers work engagement and burnout as opposite poles on the continuum of work-related wellbeing and also that burnout impacts negatively on work engagement (Lynch, 2007). This view suggests that burnout is a negative outcome of work engagement and that investment in energy leads to emotional exhaustion; involvement leads to cynicism; and perceived efficacy turns into ineffectiveness (Maslach & Leiter, 1997).

The second perspective suggests that work engagement should be defined independently of burnout and that they are not opposites in the true sense (Schaufeli & Bakker, 2004). It is suggested that both burnout and work engagement, with their opposite concepts, should be measured independently and with different instruments (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002). Bakker and Demerouti (2007) supported the view of Schaufeli et al. (2002) regarding the independence of these two constructs, as both constructs are multidimensional in nature. In order to achieve the best fit for data, the three burnout scales and the three work engagement scales should be studied independently instead of using a model that studies all six scales which refers to one underlying general and undifferentiated dimension only (Rothman, 2010; Schaufeli et al., 2002).

Thus, the literature suggests that, in view of the dynamic nature of each concept, work engagement and burnout should be measured independently despite the fact that burnout may be a negative consequence of work engagement.

2.3.4 Dimensions of work engagement

According to Schaufeli and Bakker (2010), work engagement comprises three dimensions, namely, vigour, dedication and absorption.

2.3.4.1 Vigour – refers to a readiness to dedicate effort and energy to remaining purposeful in the face of difficulty or failure (Chughtai & Buckley, 2008). According to Rothmann

and Jordaan (2006), vigour in the work context is a positive affective response to interactions and stimuli in the work environment.

2.3.4.2 *Dedication* – refers to a strong identification with and feelings towards the job and “putting everything in the job” (Chughtai & Buckley, 2008; Schaufeli et al., 2002). Affective elements such as feelings of enthusiasm, passion, pride and challenges are also characterised by this dimension (Freeney & Tiernan, 2006; Geldenhuys et al., 2014; Schaufeli et al., 2002). Other symptoms are psychological involvement in the job and the feeling of a sense of significance (Geldenhuys, 2009; Geldenhuys et al., 2014; Schaufeli et al., 2002).

2.3.4.3 *Absorption* – refers to a cognitive component and is characterised by individuals being completely engrossed in their work; fully focused in their work and experiencing satisfaction and total involvement in their work performance (Chughtai & Buckley, 2008; Geldenhuys et al., 2014; Schaufeli et al., 2002). Absorption symbolises the concept of flow that refers to an optimal state where focused attention, a clear mind, unity between mind and body, complete control, distortion of time and basic enjoyment are experienced (Csikszentmihalyi, 1990; Patrick, 2011).

2.3.5 Demographic variables influencing work engagement

Health and wellbeing are influenced by both personal and social variables (Waitzkin, 1983). This study explored the relationship between work engagement and the socio-demographic variables of gender, age, race, marital status, number of years in current position and number of years in public service.

2.3.5.1 Gender

Studies report that, despite the fact that men scored higher in all three dimensions of work engagement compared to women, the differences were relatively insignificant (Schaufeli & Bakker, 2003; Patrick, 2011).

In terms of men and women it would appear that job resources impact differently on the development of work engagement with resources such as co-worker support leading to higher levels of energy in women while supervisory and co-worker support lead to higher levels of dedication and perceived efficacy in men. This has been confirmed by certain studies that reported statistically significant gender differences in the levels of work engagement between males and females (Korunka, Kubicek, Schaufeli & Hoonakker, 2009). The results from a study conducted by Kong (2009) showed that it was only on the

dimensions of vigour and absorption that males achieved higher scores than females but females achieved higher scores in terms of dedication.

2.3.5.2 Age

Research shows that age has an effect on work engagement. In general, older employees are found to be more engaged in their work, compared to their younger counterparts (Schaufeli & Bakker, 2003; Schaufeli et al., 2002).

2.3.5.3 Race

Segal (2009) reported that, in the United States of America, minority groups such as blacks and Indian employees tend to experience lower levels of work engagement compared to white employees. On the other hand, in the South African context, Bezuidenhout (2008) found no significant difference in the total scores of work engagement between blacks and whites.

2.3.5.4 Marital status

There appears to be limited research conducted on the relationship between work engagement and marital status. However, with regard to marital status, Kong (2009) found a significant difference with the vigour and dedication dimensions of the work engagement construct. Kong (2009) reported that, in all three dimensions of work engagement, unmarried employees achieved higher scores compared to their married counterparts.

This limited knowledge on the relationship between marital status and work engagement therefore implies the need for further studies in the interest of more comprehensive findings.

2.3.5.5 Number of years in current position

There seems to have been limited research into the number of years for which an individual has filled a position and the level of work engagement. Kong's (2009) study revealed that employees with 0 to 5 years' working experience had gained the highest scores in all three dimensions of the work engagement scale. This may, however, be attributed to employees starting out in the world of work and feeling fresh and energised to make a difference.

There was also an increase in work engagement scores for employees with 11 to 15 years working experience and a decrease in scores for employees between 6 and 10 years working experience. It may be that employees with 6 to 10 years working experience are either tired after a period of high-working engagement or they have just started to establish

their families and are now redirecting their energy towards their families. Employees with 16 to 20 years of experience gained the lowest scores in relation to the dedication and absorption dimensions (Kong, 2009).

2.3.5.6 Number of years in public service

The public sector, compared to the private sector, provides greater security of job tenure. However, factors associated with transformation as well as other influences, for example, attitudes and behaviours do impact on job security (Albrecht & Travaglione, 2003). Lower levels of work engagement have been found to be associated with job security (Leiter & Harvie, 1997; Rothbard, 2001).

The Job Demands-Resources Model suggests that engaged employees possess the social, physical and organisational resources required to address job demands. Engaged employees develop vigour and dedication over time by investing energy and time in their jobs (Halsbesleben & Wheeler, 2008). Accordingly, employees with longer job tenure in an organisation would have developed the requisite resources and motivation over time and may, therefore be more engaged compared to their counterparts with shorter job tenure. However, other studies have indicated that employees with longer job tenure tend to demonstrate a lower level of engagement after time. This highlights the need for on-going studies on employee engagement in relation to tenure (De Lange, De Witte & Notelaers, 2008).

2.4 BURNOUT

This section conceptualises and defines the concept of burnout. The section also discusses theories and dimensions associated with burnout as well as socio-demographic variables and their possible influence on burnout.

2.4.1 Conceptualisation of burnout

Burnout is conceptualised for the purposes of this study as it refers to a distress state while high levels of burnout are associated with excessive emotional exhaustion and depersonalisation (Rothmann, 2009). Burnout is also negatively correlated with both sense of coherence and work engagement, both of which are associated with health impairment (Fourie et al., 2007; Schaufeli & Bakker 2004).

A stable and productive public service department with employees who are functioning optimally is of vital importance for South Africa, particularly in view of the fact that government is constantly criticised for poor service delivery. Modern organisations are

experiencing increasing levels of burnout while psychological stress remains a pervasive health and social problem (International Labour Organisation, 1993). The public service with its rigid rules, red tape and lack of communication is no different from these organisations.

Burnout is seen as the opposite of work engagement. The focus of positive psychology is on human strengths and optimal functioning compared to weaknesses and malfunctioning (Seligman & Csikszentmihalyi, 2000).

Burnout, as a multidimensional concept, represents a reaction to chronic stress. It is more than mere exhaustion as it is considered to be the final step in a progression of unsuccessful attempts to cope with a variety of negative, stressful conditions (Bosman, Rothmann & Buitendach, 2005). Burnout is characterised by a persistent, negative, work-related state of mind in normal individuals and consists primarily of on-going feelings of exhaustion, distress, lack of motivation, reduced efficacy as well as a dysfunctional attitude and dysfunctional behaviour at work (Schaufeli & Enzmann, 1998).

2.4.2 Definition of burnout

Burnout is defined as a prolonged dysfunctional response to chronic interpersonal stressors in the working environment (Maslach et al., 2001). According to Schaufeli, Leiter and Maslach (2009), burnout may be described as a metaphor for the state where the individual's energy is depleted to such an extent that exhaustion is experienced. This results in an inability to maintain an intense, meaningful involvement and impacts on the work performed. Schaufeli and Salanova (2014) described burnout as a multidimensional construct that includes a stress reaction caused by exhaustion and chronic fatigue; mental withdrawal or depersonalisation; and a lack of accomplishment or efficacy. Furthermore, symptoms such as depersonalisation or cynicism, lack of motivation and a dysfunctional attitude towards work are also characteristics of burnout (Maslach, Jackson & Leiter, 1996; Schaufeli & Bakker, 2004).

According to Rothmann, Jackson and Kruger (2003), burnout is seen as the final stage that results from a long-term imbalance in demands and resources and includes chronic malfunctioning at work. Burnout is an ongoing process that reduces the individual's resources and negatively impacts on the attainment of professional goals (Rothmann, 2003).

2.4.3 Theory of burnout

Interest in the burnout phenomena has grown since the 1970s when it was discovered that burnout has relevance both in the business and social spheres and that burnout affects

physical and psychological health as well as work performance and productivity (Roothman, 2010).

As the opposite of work engagement, burnout is also contextualised in the Job Demands-Resources Model and refers to work characteristics, namely, job demands, which are associated with health related costs (Bakker & Demerouti, 2007; Demerouti et al., 2001). Various studies confirmed the association between high job demands and level of burnout (Lee & Ashforth, 1996; Schaufeli & Enzmann, 1998) and also burnout and ill-health (Ahola, Honkonen, Isometsa, Kalimo, Nykyri & Aromaa, 2005; Shirom, Melamed, Toker, Berliner & Shapira, 2005).

The term “burnout” was coined by Herbert Freudenberger (1974) who referred to it as a negative psychological state that includes symptoms such as fatigue, emotional exhaustion and lack of motivation. Maslach and Jackson (1981) initially stated that burnout applied only to professionals in the helping profession who rendered a service to others. Contrary to this, however, the Shirom-Melamed Model on burnout was developed and referred to lower energy levels at work, irrespective of the work context (Shirom & Ezrachi, 2003; Shirom & Melamed, 2006). Thus, the concept of burnout came to be used in professions outside of the helping profession and is described as a crisis in one’s working relationship instead of a crisis with the people at work (Maslach et al., 2001). This theory includes symptoms such as cynicism and disengagement as well as other symptoms such as helplessness, hopelessness, entrapment and decreased motivation (Leiter & Maslach, 1998; Pines, Aronson & Kafry, 1981).

Both the Job Demands-Resources Model and the Comprehensive Burnout and Engagement Model suggest that burnout is an outcome of stress and is a consequence of a lack of the resources required to deal with the demands of the job (Bakker, Demerouti & Verbeke, 2004; Rothmann & Jorgensen, 2007; Schaufeli & Bakker, 2004). However, the Conservation of Resources Theory contradicts the Job Demands-Resources Model and Comprehensive Burnout and Engagement Model as it suggests that burnout is experienced when the individual experiences resource loss over a period of time compared to those who do not experience a loss of resources and who continue to experience a positive affective state such as vigour – the opposite of burnout (Hobfoll & Shirom, 2000; Shirom, 2004). The contrasting relationship of burnout with vigour as described by Shirom (2004) includes both the pathogenic and salutogenic theory in describing affective experiences at work.

2.4.4 Dimensions of burnout

Burnout consists of three dimensions, namely, emotional exhaustion; depersonalisation; and a lack of personal accomplishment (Van der Colff & Rothmann, 2009). Emotional exhaustion and depersonalisation are considered to be the core symptoms of burnout (Demerouti, Bakker, Nachreiner & Schaufeli, 2000).

2.4.4.1 Emotional exhaustion

Emotional exhaustion appears to be the most analysed of the three components and is considered to be the central aspect of burnout (Roothman, 2010). Emotional exhaustion refers to a state of depleted physical and emotional resources and causes individuals to withdraw from their work, both emotionally and cognitively (Van der Colff & Rothmann, 2009). Individuals experiencing emotional exhaustion feel overwhelmed in that they feel that they do not possess adequate resources to meet their job demands (Halbesleben & Demerouti, 2005).

According to Roothman (2010), the Oldenburg Burnout Inventory (OLBI) extended the concept of emotional exhaustion to include items that reflected physical, affective and cognitive strain. This includes symptoms such as feelings of emptiness, physical exhaustion, and a desperate need to rest (Demerouti et al., 2000).

2.4.4.2 Depersonalisation

Emotional exhaustion promotes the feelings of depersonalisation that is also referred to as cynicism (Maslach et al., 2001). Depersonalisation or cynicism refers to feelings of detachment and unresponsiveness to job tasks (Patrick, 2011).

According to Demerouti et al. (2000), depersonalisation consists of negative and cynical attitudes and/or detachment from clients although the Oldenburg Burnout Inventory extends this concept to include not only detachment from clients but also from one's work or work content (Roothman, 2010).

2.4.4.3 Decreased personal accomplishment

Decreased personal accomplishment relates to self-evaluation and refers to feelings of inadequacy, incompetence, lack of achievement and unproductiveness (Maslach et al., 2001). Demerouti et al. (2000) referred to lack of personal accomplishment as negatively evaluating one's work and experiencing feelings of inadequacy. Korunka et al. (2009)

referred to decreased personal accomplishment as a lack of professional efficacy that is characterised by reduced feelings of competence and accomplishment.

According to Roothman (2010), this self-evaluation may be reasonable and substantiated or it may comprise totally subjective perceptions and feelings of being ineffective and deficient both in one's job and in the organisation. Individuals who experience a reduced sense of professional efficacy compromise their successes; are less confident about their abilities; and no longer feel that they can make a difference through either their work or their personal interactions (Maslach, Jackson & Leiter, 1996).

Viljoen (2012) indicated that there are different views on the development and sequence of the burnout dimensions. Researchers such as Golembiewski, Munzenrider and Stevenson (1986) cited that burnout starts with feelings of depersonalisation and that these lead to a lack of personal accomplishment and, thereafter, emotional exhaustion. On the other hand, Leiter and Maslach (1998) argued that an individual first experiences the emotional exhaustion that leads to depersonalisation and then develops a low sense of accomplishment. This implies that if the job demands and stressors are ongoing and, if there is an inability on the part of the individual, as well as a lack of resources to manage these stressors over time, emotional and physical fatigue will set in which will lead to detachment and low self-efficacy.

2.4.5 Socio-demographic variables influencing burnout

According to Serin and Balkan (2014), previous studies on burnout focused primarily on stress, fatigue, performance and turnover and thus there is a need to investigate the effects of socio-demographic variables on employee burnout. This section discusses the previous findings on the relationship between socio-demographic variables such as gender, age, race, marital status, number of years in current position and number of years in public service and burnout.

2.4.5.1 Gender

The findings of studies on the relationship between gender and burnout are inconsistent. Certain studies report higher levels of burnout among women while others reported higher levels of burnout among men (Ronen & Ayla, 2008). However, research on gender differences in terms of coping at work does show that, compared to men, women are more vulnerable to undesirable life events both at work and outside of the working environment but that women are more inclined to implement coping strategies in response to stressful situations compared to men (Krajewski & Goffin, 2005; Tamres, Janicki & Helgeson, 2002).

Maslach and Leiter (1997) found in their studies on public officials that female employees had a higher burnout rate on some factors compared to male employees.

A study amongst public accountants show that men and women experience emotional exhaustion at similar levels but that women experience higher levels of decreased personal accomplishment while men report higher levels of depersonalisation (Guthrie & Jones, 2012). Luk, Bessie, Selwyne and Stanley (2010) found no significant differences in terms of gender and the three burnout dimensions. A study amongst librarians found that males experienced higher levels of emotional exhaustion and depersonalisation compared to women (Attafar, Asl & Shahin, 2011) whilst there were no significant difference in the sense of personal accomplishment dimension between males and females.

2.4.5.2 Age

It appears that there is a paucity of research on age as a moderating influence of job resources or job demands on employee wellbeing (Korunka et al., 2009). Studies that have investigated whether age is associated with job burnout have produced inconclusive results (Brewer & Shapard, 2004).

Physiological changes and changes in cognitive functioning which are related to changes in age may weaken resilience and lead to higher levels of burnout as a response to job demands (Hess, 2005; Korunka et al., 2009; Park, Lautenschlager, Hedden, Davidson, Smith & Smith, 2002).

On the other hand, Siu, Spector, Cooper and Donald (2001) argued that elderly employees may have acquired more coping resources throughout their working career to enable them to effectively develop job resources into work engagement. This theory is confirmed by Serin and Balkan (2014), who stated that age has a negative relation to burnout. They attributed this to older people having developed some form of protection against burnout whereas younger employees are more prone to experience burnout. Similar studies confirmed higher levels of burnout among younger employees who are seen to be less skilled in managing their job demands compared to their older counterparts (Jackson & Rothmann, 2005; Kilfedder, Power & Wells, 2001; Rothmann & Barkhuizen, 2008).

Studies conducted by Bezuidenhout (2008) reported no significant correlations between age and burnout. On the other hand, Luk et al. (2010) reported that in a sample of teachers in Hong Kong, age was the strongest predictor of emotional exhaustion and depersonalisation.

There is clearly an ongoing need to investigate the relationship between the socio-demographic variable of age and burnout as studies thus far seem to be inconclusive.

2.4.5.3 Race

In her studies, Bezuidenhout (2008) found no significant differences in the total scores or sub-dimensions of burnout between black respondents and white respondents and therefore concluded that the study could be generalised across various population groups. Harry (2011) confirmed this conclusion in a study with different racial groups amongst a sample of call centre staff in a higher education environment, namely, that there was no significant difference between racial groups and burnout. Thus, the research into the relationship between job burnout and the various racial groups are inconclusive and, clearly, more studies need to be conducted, especially within the South African context with its diverse population.

2.4.5.4 Marital status

The majority of studies indicate that married employees experience higher levels of burnout although other studies report no significant differences (Mousavy, 2014). However, some studies report that single employees experience levels of burnout, specifically the dimensions of emotional exhaustion and depersonalisation compared to married employees (De Heus & Diekstra, 1999; Özdemir, 2007) while single employees also experienced higher levels of burnout compared to divorced employees (Maslach et al., 2001). Married employees have been found to have higher levels of decreased personal accomplishment (Mousavy, 2014) and also higher levels of emotional exhaustion compared to their unmarried counterparts (Ross, Altmaier & Russell, 1989). However, other research results show no significant differences between burnout and marital status (Gavrilovici, 2008; Gezer, Yenel & Sahan, 2009; Louw, George & Esterhuyse, 2011).

2.4.5.5 Number of years in current position

There appears to be a paucity of studies on the relationship between burnout and the number of years in a position although there are more studies on burnout and tenure – see next paragraph. However, Mukundan and Ahour (2011) reported that age and number of years teaching in a position are significantly associated with burnout.

2.4.5.6 Number of years in public service

According to Serin and Balkan (2014), public service is a stressful working environment and gives rise to burnout among public officials. This results in an increase in ill-health cases as well as absenteeism.

Studies show that age and length of tenure do not have an impact on work performance, thus indicating that mature workers are probably familiar with workload expectations and are the least likely to experience burnout compared to their younger colleagues (Acker, 2003; Maslach & Jackson, 1981; Shirom, Toker, Berliner, Shapira & Melamed, 2008). This was also confirmed in a study amongst librarians that found that longer tenures (five years and more) demonstrated higher levels of perceived sense of personal accomplishment compared to those with less than five years' experience (Attafar et al., 2011). However, contrary to this, other literature suggests that older employees with longer tenure are more likely to experience burnout compared to their counterparts with a shorter tenure (Collings & Murray, 1996; Schulz, Greenley & Brown, 1995).

2.5 INTEGRATION: THE THEORETICAL RELATIONSHIP BETWEEN SENSE OF COHERENCE, WORK ENGAGEMENT AND BURNOUT

The focus of the literature review was on investigating the relationship between the salutogenic properties of sense of coherence and work engagement and the pathological variable, namely, burnout; whether a strong sense of coherence was a moderating variable for work engagement and burnout and the impact of sense of coherence, work engagement and burnout on employee wellbeing or flourishing.

A study on psychological functioning of public service officials is crucial as the South African government is under tremendous pressure to improve service delivery and therefore, the wellbeing properties of employees are an important consideration in ensuring that officials experience positive affective states when dealing with the public. The constructs under the salutogenic paradigm function as coping mechanisms and operate on the inherent strengths of the individual as well as the individual's ability to successfully adjust to stressors while remaining healthy (Patrick, 2011; Strümpfer, 1992, 1995).

Investigations into the relationship between the three variables have found that a strong relationship between sense of coherence, work engagement and burnout, and also that sense of coherence and burnout as well as work engagement and burnout are negatively correlated (Bezuidenhout, 2008). Patrick (2011) highlighted that individual differences with regard to sense of coherence is a mediating factor for work engagement and burnout and

also that it is negatively related to work stress and positively related to employee wellbeing (Feldt, 1997). According to Feldt (1997), as the level of sense of coherence increases, the scores for burnout, specifically the dimension emotional exhaustion, decrease.

A study on local government employees established that sense of coherence has a moderating effect on the experience of job stress and burnout while a study amongst a sample of nurses confirmed that those with a strong sense of coherence were able to cope with the occupational stress caused by the job demands and a lack of organisational support (Roothman, Kirsten & Wissing, 2003; Van der Colff & Rothmann, 2009). Both individuals with a strong sense of coherence and those with a reasonable workload are less likely than others to experience emotional exhaustion, depersonalisation and decreased levels of personal accomplishment (Bezuidenhout, 2008; Bezuidenhout & Cilliers, 2010; Harry, 2011; Levert et al., 2000; Van der Colff & Rothmann, 2009). These correlations were also established in a sample of social workers (Gilbar, 1998), a sample of senior managers (Rothmann, 2004), and call centre staff in a higher education institution (Harry & Coetzee, 2011).

Figure 2.2 illustrates diagrammatically the integration of the wellbeing constructs with the salutogenic constructs and the impact this has on the individuals, as well as the organisation.

includes the following dimensions, namely, positive feelings (hedonic wellbeing), positive functioning (eudaimonic wellbeing), that is measured by subjective emotional wellbeing, subjective psychological wellbeing and subjective social wellbeing (Keyes, 2007). According to Rothmann (2013), studies conducted in Southern Africa report that the outcomes of flourishing include individuals feeling good and experiencing job satisfaction; psychologically functioning well with high levels of energy; are dedicated; experience meaning and purpose at work. Such employees also experience social wellbeing, for example acceptance, social coherence and integration. These findings of Rothmann (2013) therefore suggest that employees who are flourishing also experience a strong sense of coherence and are engaged in their work.

Flourishing and happiness refer to life/job satisfaction and reflect emotional wellbeing (feel good) as well as experiencing positive cognitive functioning (Keyes, 2002). Psychological wellbeing refers to positive psychological functioning and includes work engagement (vitality and dedication), meaning and purpose in work, self-determination and harmony. According to Rothmann (2013), there is a lack of research on social wellbeing, as theorised by Keyes (2005) thus, social wellbeing in the workplace merits further investigations.

In order to explain the concept of mental ill-health or ill-being, Keyes (2002; 2005; 2007) also introduced the concept of human languishing as the opposite of flourishing which refers to low levels of emotional, psychological and social wellbeing (see Figure 2.2).

As indicated in Figure 2.2, Antonovsky (1993) added to the theory on mental health and associated psychological wellbeing with the concept of sense of coherence which refers to the individual having an enduring attitude and perceiving life's challenges as comprehensible, manageable and meaningful. Studies by Nahlén and Saboonchi (2010) found that a strong sense of coherence equips the individual with various coping strategies that have a positive influence on emotional wellbeing. Positive emotion, in return, influences the individual's cognitive states, functioning and mental health (Fredrickson & Losada, 2005; Menk et al., 2010).

Sense of coherence is considered to be a personal resource that contributes to the individual's resilience to stress and helps to shield against burnout (Harry & Coetzee, 2011). A strong sense of coherence has a positive effect on both work engagement and the psychological wellbeing of individuals (Bezuidenhout & Cilliers, 2010). According to Fourie et al. (2007), sense of coherence is considered a predictor of perceptions and therefore individuals with a strong sense of coherence will view environmental stressors as

manageable and feel they have both the ability and the resources required to effectively manage these stressors.

Sense of coherence and work engagement are also reflective of the hedonic wellbeing (feeling good) and eudaimonic wellbeing (functioning well) dimensions as sense of coherence relates to feelings of confidence and satisfaction with life whereas a high work engagement is a reflection of the positive psychological functioning which includes energy, dedication, meaning and purpose (Fourie et al., 2007).

The concepts of sense of coherence and work engagement are closely associated with flourishing and are influenced by personality variables such as emotional stability, dispositional optimism and resilience (Bezuidenhout, 2008; Fourie et al., 2007; Rothmann, 2013). The positive association between sense of coherence and work engagement implies that employees who are engaged are fully connected in their work; have high energy levels; experience a sense of significance; and are optimistic (Bakker, 2011; Kahn, 1990). Figure 2.2 also shows that work engagement is significantly and positively related to job satisfaction and wellbeing (Diedericks, 2012; Fourie et al., 2007).

A strong sense of coherence implies that such individuals perceive that they possess the personal resources (psychological wellbeing) required to respond to their job demands, they experience a high sense of meaningfulness (emotional wellbeing) and feel that it is worth their while to commit to and engage in the challenges they encounter (Antonovsky, 1984). Thus, theory suggests that employees who perceive their work to be meaningful and manageable will utilise their job and personal resources to become more engaged by investing energy and dedication into dealing with stressors and will therefore be considered as healthy or flourishing individuals. This has positive outcomes in their jobs.

Burnout is experienced by individuals who lack the adequate personal resources (sense of coherence, resilience and dispositional optimism) and coping strategies to respond to prolonged and continuous exposure to stressors and who may then experience severe physical, emotional and mental exhaustion (De Lange et al., 2008; Jordan, Blumenshine, Bertolone & Heinrich, 2010; Lee & Choi, 2010). Keyes' (2002; 2005; 2007) continuum of wellbeing introduces the concept languishing as the opposite of flourishing and refers to individuals experiencing low levels of hedonic and eudaimonic wellbeing with symptoms of emptiness, stagnation and a shallow life of despair devoid of meaning which are associated with the burnout dimensions of depersonalisation and reduced personal accomplishment. Accordingly, burnout may be experienced if individuals are exposed to chronic and persistent stress, accompanied by low levels of emotional, psychological and emotional

wellbeing, as well as a lack of personal resources, such as sense of coherence, which may lead to an inability to respond to life's demands effectively.

Burnout is also symptomatic of the depleted physical and emotional resources that cause individuals to withdraw from their work both emotionally and cognitively, thereby negatively influencing their work engagement (Van der Colff & Rothmann, 2009). Individuals who experience emotional exhaustion feel overwhelmed and do not perceive their work as manageable and meaningful (Halbesleben & Demerouti, 2005).

Personal resources and job resources are important contributing factors to positive functioning. Stress management resources such as sense of coherence equip individuals with better coping mechanisms and resilience that may otherwise have been the case and, thereby, have a positive impact on wellbeing. A significant correlation was found between flourishing, mindfulness and sense of coherence (Gimpel, Von Scheidt, Jose, Sonntag, Stefano, Michalsen & Esch, 2014). Thus it is clear that flourishing, mindfulness and sense of coherence have an important impact on the psychological health and functioning of individuals.

Flourishing is influenced by the type and quality of activities in which individuals engage in while pursuing their goals (Sheldon et al., 2010). Positive experiences in the workplace may influence flourishing levels and outcomes, for example, work engagement and job satisfaction (Armstrong, 2006). The job characteristics, as mentioned in the Job Demands-Resources Model (Bakker & Demerouti, 2007) influence levels of job satisfaction, work engagement and employee flourishing (Hackman & Oldham, 1980). Job resources, as well as personal resources, are positively associated with work engagement and may reduce the job demands associated with physiological and psychological costs, for example, burnout (Schaufeli, 2013). In addition, personal resources, such as dispositional optimism, sense of coherence, resilience, emotional stability and self-efficacy are precursors to work engagement and lead to positive attitudes towards the job, improved health and wellbeing and an increase in job performance (Rothmann, 2009; Schaufeli, 2013; Wrosch & Scheier, 2003).

Flourishing is influenced by job resources when individuals possess a strong sense of coherence in terms of coping with work challenges; when physical, emotional and cognitive resources positively impact on work engagement; and where positive relations are maintained, for example, supervisory support or trusting relations with colleagues (Dutton & Ragins, 2007; Edmondson, 2004; Kahn, 1990; May et al., 2004; Schaufeli & Bakker, 2004).

Therefore, according to Bakker et al. (2008), job and personal resources, such as sense of coherence, have a significant impact on work engagement and wellbeing.

Based on the literature review, the impact of the salutogenic constructs of sense of coherence and work engagement on employee wellbeing are depicted in Figure 2.3 and the impact of the pathogenic construct burnout on employee wellbeing in Figure 2.4.

Figure 2.3. The theoretical impact of the constructs sense of coherence and work engagement on employee wellbeing

Wellbeing characteristics	Sense of coherence	Work engagement	Burn-out	Outcomes	Well-being
Hedonic wellbeing	Strong	High	Low	Feeling confident, experience job satisfaction, possess the coping strategies required to deal with stressors, engaged and focused (Rothmann, 2013).	High
Eudaimonic wellbeing	Strong	High	Low	Optimal functioning, assess work as manageable, possess the personal resources required to deal with challenges and remain healthy (Diedericks, 2012; Rothmann, 2013).	High

Figure 2.4. The theoretical impact of the construct burnout on employee wellbeing

Wellbeing characteristics	Sense of coherence	Work engagement	Burnout	Outcomes	Well-being
Hedonic wellbeing	Weak	Low/moderate	High/moderate	Feelings of emptiness, low job satisfaction, low levels of self-efficacy and depersonalisation (Keyes, 2005; 2007).	Low
Eudaimonic wellbeing	Weak	Low/moderate	High/moderate	Do not perceive work as meaningful and challenging, disengaged in work, ill-being decreases work performance (Keyes, 2005; 2007).	Low

It was clear from the literature review that the theoretical framework on wellbeing/flourishing provided an understanding of the conceptualisation of the relationship between sense of coherence, work engagement and burnout and this relationship impact on employee functioning. It is suggested that employee wellbeing/flourishing and sense of coherence are antecedents to work engagement and are also the conditions for low turnover intentions; higher functioning individuals; decreased absenteeism; improved work performance; and healthier employees (Keyes, 2007; Swart, 2012).

2.6 CHAPTER SUMMARY

This chapter presented the review of relevant literature. Employee wellbeing, sense of coherence, work engagement and burnout were conceptualised. These constructs were summarised using previous views and definitions while the main concepts relevant to these constructs were also identified and briefly explained.

Chapter 3 focuses on the empirical findings of the study in the form of a research article.

Chapter 3

Research article: The relationship between sense of coherence, work engagement and burnout in a public sector organisation

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Abstract

Orientation: Challenges within the public sector environment include budget cuts, high vacancy rates, pressure for the privatisation of certain services, higher caseloads and red tape – all of which impact on the wellbeing of civil servants. The 21st century requires a public service that consists of employees who are committed to and focused on service delivery and who are able to meet the expectations of the public.

Purpose: The objectives of this study were to (i) assess whether there was a relationship between the constructs sense of coherence, work engagement and burnout; (ii) whether sense of coherence and work engagement have an influence on burnout; and (iii) whether, there is a difference in the socio-demographic variables (gender, age, race, marital status, number of years in current position and number of years in public service), and sense of coherence, work engagement and burnout.

Motivation for the study: Disengagement, stress and mental illness are prevalent among public service officials and result in ill-health, absenteeism and a lack of service delivery. Despite the fact that middle managers in public service are positioned between strategic formulation and programme implementation, there has been very little research conducted on the way in which their complex role impacts on their wellbeing.

Research design: The study employed a quantitative study, using primary data from a convenience sample (N = 172) of middle managers within a public service organisation.

Main results: The correlational and inferential statistical analysis revealed a significant statistical relationship between the variables, namely, sense of coherence, work engagement and burnout. Significant differences were also found between respondents in terms of marital status and depersonalisation or cynicism. Overall, the results of the study

showed that the respondents experienced high levels of sense of coherence, work engagement and professional efficacy.

Practical/managerial implications: When implementing awareness and education programmes aimed at employee wellbeing, the public service should consider programmes on personal resources such as sense of coherence and work engagement as these relate to the coping ability of employees as well as their optimal functioning in the workplace while also impacting on their wellbeing.

Contribution/value-add: The findings provide valuable information on the way in which employee wellness programmes could be designed to improve the wellbeing of middle managers within the public service.

Key words: employee wellness, middle managers, public service, sense of coherence, work engagement and burnout

INTRODUCTION

The aim of this chapter is to provide information on the background and trends in literature relevant to this study. The research design, research methodology and study results are also discussed. Recommendations and the potential value-add of the study are provided at the end of the chapter.

Key focus of the study

Public service employees face numerous challenges, for example, demands from the public, limited resources and an inflexible working environment. These challenges may lead to low levels of job satisfaction and chronic stress that are symptomatic of ill-health and burnout (Borg & Riding, 1991; Burke, 2001; Kyriacou, 1987; Laughlin, 1984; Luddy, 2005).

The current study was conducted using a sample of middle managers considered to occupy a complex position between senior managers and front line staff and are required to implement strategic objectives (McGurk, 2009). The issue of the wellbeing of middle managers becomes important as the literature suggests that public service is a stressful working environment and employees have been found to be experiencing low levels of morale and job satisfaction which affect their wellbeing and lead to burnout

The key focus of the study was to investigate whether there was a significant statistical relationship between the constructs of sense of coherence, work engagement and burnout. In addition, the study also investigated any differences in the socio-demographic variables of the participants in relation to the above three constructs.

Background of the study

The South African public service is under severe pressure to improve service delivery and this, coupled with an increase in public expectations, budget cuts, high vacancy rates, and a lack of resources are creating stress and anxiety among officials which may result in poor service delivery and low levels of job satisfaction (Burke, 2001; Hornbaek, 2006; Luddy, 2005; Nilsson, 2010). The public sector environment is also characterised by repetitive tasks, team conflict and competitive behaviour that may also impact on the stress levels and ill-being of the employees (Singh, Damodar & Michael, 2011). Chronic stress, ill-health and burnout are experienced where the job resources are weak or insufficient and where employees do not possess the ability to deal with such workplace demands (Borg & Riding, 1991; Kyriacou, 1987; Laughlin, 1984).

Middle managers are between front line staff and senior managers and thus they have a critical role to play in interpreting and envisioning the organisational strategic objectives to enable the front line staff to execute the organisational strategies (McGurk, 2009). The role of middle managers, according to McGurk (2009), is to manage subordinates or team members and resources; implement business plans; and work effectively with staff members to implement the strategic changes driven from the top and also those initiated from below. Accordingly, middle managers require both managerial and leadership skills. According to Lawler (2008), this has resulted in a greater focus on the concept of leadership as part of management development in public sector organisations. McGurk (2009) mentioned that, although middle managers in government have a crucial role to play in implementing change, few if any, studies have explored interventions aimed at addressing developmental areas as they pertain to middle managers.

According to Karp and Helgo (2008), changes in labour and economic markets are posing significant challenges for public enterprises, for example, budget cuts while simultaneously an increased focus on quality services.) Middle managers in public service are therefore being challenged to operate in an increasingly complex environment for example, having to operate in a leaner and increasingly privatised government characterised by an environment with poor communication, low morale and incompetent staff (Denhardt & Denhardt, 2011; Luddy, 2005; Serin & Balkan, 2014). According to McConville (2006), working in a challenging environment often results in managers experiencing role dissonance as they have to deal with change and implement policies dictated by governing bodies and watchdog organisations but without having had the opportunity to influence the decision-making processes.

Patrick (2011) mentioned that studies conducted with public service officials revealed an abnormal high amount of medication and substances used for depression and anxiety and, due to the high stress levels, impacts on employees feeling desponded, disengaged and pessimistic. Furthermore, Serin and Balkan (2014) reported that the organisational culture in public service consists of an inflexible working environment that often leads to burnout and, despite the fact that managers are aware of this, there appears to be a lack of commitment in addressing the issue.

The government department in which this study was conducted also reported that stress, mental illness, organisational issues and relationship issues were the main reasons why employees seek to access the Employee Assistance Programmes (EAP report, 2013). The annual exit reports developed by the Human Resources Unit also revealed a high turnover among middle managers (HRD, 2013). At the time of the study the organisation had

recently embarked on an organisational development intervention and a survey conducted found that employees perceived the management style within the organisation as problematic (HRD, 2013).

Despite the fact that numerous studies have been conducted on sense of coherence, work engagement and burnout in the public service, these focused primarily on the health and education sectors (Bezuidenhout & Cilliers, 2010; Harry, 2011; Jacobs & Roodt, 2010; Wajid, Zaidi, Zaidi & Zaidi, 2011). Horn (2014) conducted research on the constructs of sense of coherence, locus of control and burnout among middle managers in a mining company and reported both low to moderate levels of burnout in her sample group and also that sense of coherence was negatively correlated with burnout.

There appears to have been limited research on the properties of wellbeing and, specifically, the relationship between the constructs sense of coherence, work engagement and burnout among middle managers in the public service.

Literature review

A brief overview of the literature on the constructs sense of coherence, work engagement and burnout is presented below:

Sense of coherence

Sense of coherence is based on the salutogenesis paradigm and focuses on understanding how people remain healthy while being exposed to stressors in the environment (Antonovsky, 1979). Sense of coherence is described as a global view characterised by a persistent and enduring feeling of confidence that influences and pervades the individual's functioning. Individuals with a strong sense of coherence possess the ability and understanding required to make an effective assessment of environmental stimuli and to view the environment as clear and structured (Antonovsky, 1987). These dynamic feelings and beliefs include a) the confidence that the stimuli in the environment are predictable and controllable (comprehensibility); b) the individual possesses the internal resources required to meet the challenges presented by these stimuli (manageability); and c) it is worthwhile investing energy in these challenges (meaningfulness) (Antonovsky, 1987).

Thus, sense of coherence refers to the way in which individuals perceive and understand their environment; and also their ability to make sense of and respond to a complex environment while remaining healthy under such circumstances (Antonovsky, 1987; Harry & Coetzee, 2013; Louw, Mayer & Baxter, 2012).

A strong sense of coherence enables individuals to evaluate and control their environment using the meaningful and appropriate action which is considered to be a personal resource as these individuals are able to manage stressful situations and guard against burnout (Barnard, Peters & Muller, 2010; Harry & Coetzee, 2011; Van Schalkwyk & Rothmann, 2008). Thus, sense of coherence relates to both individual differences and also the way in which complex situations are perceived, evaluated and, ultimately, responded to.

Keyes' (1998) model of mental wellbeing, also known as flourishing, equates with positive mental health and refers to individuals feeling good and function effectively while experiencing life satisfaction. Associating the construct sense of coherence with psychological wellbeing refers to individuals demonstrating an enduring positive attitude and perceiving life challenges as comprehensible, manageable and meaningful (Antonovsky, 1993).

Various studies on the construct sense of coherence have been conducted in the public service. A study among nurses revealed the coping potential of having a strong sense of coherence as the study confirmed that those with a high level of sense of coherence were able to cope with the occupational stress caused by the job demands in the health sector (Van der Colff & Rothmann, 2009). In addition, a study conducted among local government employees established that sense of coherence had a moderating effect on the experience of job stress and burnout (Rothmann, Jackson & Kruger, 2003).

It can therefore be concluded that sense of coherence relates to an individual's perception and understanding of his/her environmental stimuli and enables the individual to decide on appropriate coping strategy to apply in dealing with environmental challenges while remaining healthy. The resilience capability associated with sense of coherence may provide officials with a sense of being able to thrive in a challenging work environment, such as the public service, by allowing them to perceive their work as manageable and meaningful and also that they possess the coping ability required to deal with the job stressors.

Work engagement

Work engagement, as with sense of coherence, is also based on the salutogenesis paradigm that focuses on the reason why the majority of people thrive and remain healthy despite being exposed to challenges and difficulties (Rothman, 2010). Studies on work engagement are becoming increasingly popular since these are associated with human strengths and optimal functioning and are also associated with positive employee and

organisational outcomes (Kong, 2009; Roothman, 2010; Schaufeli & Salanova, 2014). Work engagement is important as it reflects the individual's cognitive, emotional and physical state and is closely associated with job involvement, commitment and significance (May, Gilson & Harter, 2004).

Work engagement is distinguished by elevated levels of energy and involvement that includes a positive, fulfilling work-related state of mind characterised by the three dimensions of vigour, dedication and absorption (Bakker, Schaufeli Leiter & Taris, 2008; Geldenhuys, Laba & Venter, 2014; Schaufeli & Bakker, 2010). According to Patrick (2011), work engagement refers to an energetic state characterised by dedication to excellence and accompanied by a sense of confidence in one's performance. Work engagement is also seen as an enduring, affective and cognitive state which is not directed at any object, individual, event or behaviour and those with a high level of work engagement experience their work as inspiring, interesting, significant and meaningful (Bezuidenhout & Cilliers, 2010; Schaufeli & Bakker, 2003). Such employees experience a sense of significance, inspiration and enthusiasm and are usually focused on and immersed in their work (Bakker et al., 2008). Thus, work engagement refers to the energy, involvement and effectiveness that employees bring to a job.

Various studies in South Africa have focused on employee wellbeing and the construct of work engagement in relation to the flourishing concepts of feeling good and functioning well (Keyes & Annas, 2009; Rothmann, 2013). There is a strong relationship between flourishing and work engagement as it involves individuals knowing their strengths and using these strengths in the workplace (Park, Peterson & Seligman, 2005). According to Rothmann (2013), the three dimensions of work engagement, namely, vitality or vigour, dedication and absorption, all contribute to the debate of flourishing although studies have shown that vigour and dedication are greater predictors of positive work outcomes compared to absorption which is unstable and prone to fluctuate. Accordingly, vigour and dedication are important concepts in the model of flourishing within the work context (Rothmann, 2013).

The Job Demands-Resources Model contextualises the construct work engagement and explains the role and influence of work characteristics on work engagement (Demerouti, Bakker, Nachreiner & Schaufeli, 2001). Job resources, such as autonomy, collegial support, recognition, reward, respect and values, are consistently and strongly associated with work engagement although job demands, such as deadlines and an increase in workload, may also initiate engagement as certain job demands have the potential to create growth and accomplishment (Bezuidenhout, 2008; Schaufeli & Salanova, 2014).

An increase in job demands in the public service, for example, public expectations, lack of resources and inflexibility, may, in fact, impact positively on work engagement if employees maximise their personal resources, for example, their resilience and sense of coherence and use their existing job resources to increase their level of engagement. Studies conducted in the public sector have shown positive results for work engagement with high scores on the dimensions of vigour and dedication (Patrick, 2011; Williams, Wissing, Rothmann & Temane, 2009). Patrick (2011) reported that officials in her study functioned positively despite the challenges they faced in the public service sector. Employees who experience happiness and are satisfied with their jobs are more likely to function well in their work leading to higher levels of work engagement that is characteristic of flourishing (Keyes, 2005). Accordingly, job characteristics in the public service are an important element to consider when studying work engagement and its impact on service delivery.

Burnout

The multidimensional concept known as burnout refers to a reaction to chronic stress. It extends beyond mere exhaustion and refers to an individual's inability to cope with an ongoing range of negative, stressful conditions (Bosman, Rothmann & Buitendach, 2005). Based on the Job Demands-Resources Model, burnout is considered to be the opposite of work engagement. Nevertheless, according to Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002), burnout should be considered as a concept distinct from work engagement and therefore it should be studied empirically.

In the absence of mental illness, individuals who experience prolonged exhaustion accompanied by lack of motivation, distress, feelings of ineffectiveness, having a dysfunctional attitude and dysfunctional behaviour are most likely to be experiencing burnout (Schaufeli & Enzmann, 1998).

Burnout is defined as a prolonged, ineffective response to chronic, interpersonal stressors in the working environment and is considered to be a metaphor for the state in which depleted energy levels and severe exhaustion are experienced that makes it impossible to maintain an intense involvement in work (Maslach, Schaufeli & Leiter, 2001; Schaufeli, Leiter & Maslach 2009). Schaufeli and Salanova (2014) described burnout as a multidimensional construct that is a reaction to continuing stressors caused by exhaustion and fatigue; mental withdrawal or depersonalisation; and a negative belief or lack of accomplishment or efficacy. On-going ineffective coping skills in the face of job demands and inadequate resources may give rise to burnout which includes symptoms of chronic malfunctioning at work as well as a decrease in personal resources that may impact negatively on the attainment of professional

goals (Rothmann, 2003; Rothmann et al., 2003). Thus, employees who experience burnout are no longer able to function optimally in their job; are emotionally disconnected as their work may have lost meaning; and may experience reduced levels of confidence in performing their work (Maslach et al., 2001).

The public sector environment is considered to be a challenging working environment which is characterised by work overload, insufficient job resources, rigid rules and poor social support which may lead to lower levels of job satisfaction (Burke, 2001). As explained in the Job Demands-Resources Model (Demerouti et al., 2001), work characteristics, specifically high job demands, may lead to lower levels of job satisfaction and higher levels of burnout which impact on employee wellbeing (Burke, 2001; Serin & Balkan, 2014). Previous studies on burnout in the public sector have shown that public service officials experienced average to high levels of burnout (Ahmadi & Jafari, 2013; Bezuidenhout, 2008; Sahu & Yadav, 2013). On the other hand, studies conducted in the public service by Patrick (2011) found that officials were not experiencing high levels of burnout and that they were coping in their jobs, although the score for the dimension of reduced personal accomplishment or professional efficacy were considerably lower which may be an indication of employees having a reduced self-efficacy in their work.

A study among childcare workers in the public sector found that an increase in job demands were associated with both emotional exhaustion and decreased job satisfaction (Lizano & Mor Barak, 2015). The symptoms of burnout are consistent with the characteristics of ill-being or languishing as it includes depleted physical and emotional resources that cause detachment from work, both emotionally and cognitively (Van der Colff & Rothmann, 2009). Keyes' (2002; 2005; 2007) concept of languishing, which is the opposite of flourishing, refers to individuals experiencing low levels of hedonic (feeling well) and eudaimonic (functioning well) wellbeing. Thus, the concept of languishing relates to individuals experiencing low levels of hedonic feelings attributed to low levels of emotional wellbeing that may result in feelings of emptiness, dissatisfaction as well as depleted psychological, emotional and social wellbeing. Symptoms of emptiness, cynicism and low professional efficacy are possible consequences of workplace challenges and are characteristics of burnout and ill-being.

Integration of sense of coherence, work engagement and burnout

The constructs under the salutogenic paradigm function as a coping mechanism and emphasise both the inherent strengths of the individual and the ability to successfully adjust to stressors while remaining healthy (Strümpfer, 1992, 1995). Studies show that there is a strong relationship between sense of coherence, work engagement and burnout and also

that sense of coherence and burnout, as well as work engagement and burnout are negatively correlated although sense of coherence is positively correlated with work engagement (Fourie, Rothmann & Van de Vijver, 2007; Patrick, 2011).

Studies conducted on employee wellbeing led to arguments that employees, irrespective of their workplace challenges, are able to function well if they possess an effective coping ability as a result of their strong personal resources, for example, sense of coherence and work engagement (Fourie et al., 2007; Patrick, 2011). The orientation to flourishing serves as the basis of optimal functioning and in the work context, employees who experience positive affect and are optimising their functioning may experience a greater understanding of their work; become fully involved in their functions; and deal with organisational stressors in the most effective way that will result in positive outcomes such as lower levels of burnout and ill-health (Keyes, 2005).

Flourishing is a characteristic of individuals who are experiencing the hedonic as well as eudaimonic states (feeling good and happy as well as functioning optimally) characterised by high levels of emotional, psychological and social wellbeing (Keyes, 2002; 2005; 2007). The opposite of wellbeing is ill-being or languishing that includes low levels of emotional, psychological and social wellbeing characterised by symptoms such as feelings of emptiness, despair and disengagement (Keyes, 2002; 2007). It is suggested that employees who do not perceive their work as clear, logical, meaningful and within their control will most likely experience ineffective coping abilities; an increase in their stress levels and job dissatisfaction; and display counterproductive behaviour (Vazi, Ruiters, Van den Borne, Martin, Dumont & Reddy, 2011).

Sense of coherence is positively correlated with wellbeing and negatively correlated with languishing as an employee with a strong sense of coherence may experience lower levels of burnout and may demonstrate a greater work engagement which could be attributed to the individual's perception and understanding that the stimuli in the environment are comprehensible, manageable and meaningful (Patrick, 2011; Rothmann, Steyn & Mostert, 2005; Van der Colff & Rothmann, 2009).

The study of wellbeing and the orientation to flourishing includes investigating studying sense of coherence as it may have benefits for public service as sense of coherence refers to the individual's perception and understanding of his/her work environment as manageable and meaningful and also relates to the individual's belief that they he/she possesses the internal resources required to engage in a challenging working environment (Louw et al., 2012). Accordingly, studying wellbeing functioning in relation to the workplace challenges in

the public service may either reveal that employees either possess the coping skills associated with optimal work functioning or it may reveal that officials do not possess the requisite coping ability and therefore could result in poor work performance, high absenteeism and ill-health thereby having a negative impact on service delivery.

The public service aims to have effective and efficient service delivery driven by officials who are committed to serving the public. The work characteristics and psychological functioning of officials are therefore crucial in terms of effective employee performance and service delivery.

Studies in the public sector environment have found that a strong sense of coherence is positively related to work engagement and negatively related to burnout. According to Patrick (2011), the promotion of a strong sense of coherence will bring about higher levels of personal accomplishment and work engagement that are important considerations when addressing the low morale and poor service delivery in the public service (Fourie et al., 2007; Luddy, 2005).

Vazi et al. (2011) found that the work stressors in the educational sector were positively correlated with higher stress levels and negative affective states amongst teachers. In a study among female academics in a higher education institution, Bezuidenhout and Cilliers (2010) reported a negative association between burnout and sense of coherence. In addition, the findings in a study conducted within local government found a statistical relationship between sense of coherence, job stressors and burnout (Rothmann et al., 2003).

Other studies conducted on employee wellbeing have led to findings that public service officials, irrespective of the workplace challenges in the public sector, are able to function positively if they possess the effective coping abilities arising from a strong sense of coherence which are positively associated with work engagement (Patrick, 2011).

Despite the fact that there have been research studies on the relationship between sense of coherence, work engagement and burnout in the public service environment, there appear to have been limited studies conducted on these three constructs in relation to the different occupational levels, for example, middle management in the public service. Accordingly, the purpose of this study was to highlight this limitation in the existing literature and to make recommendations for public service organisations to implement employee wellbeing programmes that are focused on personal strengths and, to enable officials to increase their coping abilities and to become more engaged in their work while remaining healthy.

In the light of the foregoing, the following hypotheses were empirically tested:

H₁: A statistically significant relationship exists between sense of coherence, work engagement and burnout.

H₂: The individual's level of burnout is significantly influenced by the constructs of sense of coherence and work engagement.

H₃: Groups differing in respect of gender, age, race, marital status, number of years in current position and number of years in public service will differ significantly in their levels of sense of coherence, work engagement and burnout.

Research objectives

The objectives of the study included the following: to assess the relationship between sense of coherence, work engagement and burnout amongst middle managers in a public sector organisation; assess the influence of sense of coherence and work engagement on burnout; and ascertain whether there are any differences between the socio-demographic variables and the three constructs of sense of coherence, work engagement and burnout.

The potential value-add of the study

In view of the limited studies that have been conducted among middle managers in the public service, the purpose of this study was to highlight and also to provide new knowledge and information on both the way in which middle managers were coping in their complex roles and also the importance of work-related wellbeing among middle managers.

What will follow

An explanation of the research design as well as the research approach and research method used in the study is provided below. The research results are reported while the research results and significant findings are discussed, including an interpretation of previous research conducted. The conclusions, limitations of the study and recommendations for further research are then presented.

RESEARCH DESIGN

The research design and research methodology discussed in this section are based on the review of the relevant literature presented in Chapter 2 and briefly outlined in the preceding introduction.

A research design may be described as a strategic guide that indicates how the research question will be operationalised and implemented (Terre Blanche, Durrheim & Painter 2006). In other words, the research design is a plan that provides information on the data collection and data analysis processes and is linked to the research purpose. The research design used in this study is presented below. This is then followed by a discussion of the research approach and research methodology used.

Research approach

This research study was exploratory in nature as it is aimed to provide new insights, confirm central concepts and constructs and investigate the relationship between the constructs sense of coherence, work engagement and burnout (Babbie, 1989). According to Bezuidenhout (2008), exploratory research provides insights into phenomena that were previously unexplored, identifies possible future research and develops new hypotheses.

The study was conducted using the quantitative research design approach. According to Fouche and De Vos (2005), a quantitative study transforms the relevant concepts into operational definitions to make it possible to obtain numerical results and report such results in the form of a statistical representation. In this study a cross sectional study was conducted in order to investigate the relationship between sense of coherence, work engagement and burnout. The study used electronic questionnaires that were self-administered by the participants. The requisite primary data was obtained from the data collected from the participants. The correlational approach was used to analyse the data and to determine the relationship between the constructs sense of coherence, work engagement and burnout.

The study was also descriptive in nature as it investigated the relationship between the three constructs and provided empirical and descriptive information on these three constructs. Descriptive studies aim either to describe phenomena or to provide a complete or accurate description of a situation or of relationships (Strüwig & Stead, 2010).

Research method

This section discusses the research method used in the study. This includes discussions on the research participants, measuring instruments used, research procedure followed and the statistical analyses conducted.

The research method included a literature review, a study of the relevant concepts, relationships and differences between these concepts and an empirical study on the various

variables used in the study to assess their statistical relationships and differences between them.

Research participants

The total study population ($N = 300$ of which 172 only were viable) consisted of middle managers permanently employed in various divisions in the public sector organisation selected. All the middle managers in the organisation were targeted and the questionnaires (measuring instrument) were distributed electronically. Follow up contacts were made to ensure that as many managers as possible were responded to the questionnaire.

Descriptive information pertaining to the sample is presented in Table 3.1. A response rate of 57% or 172 useable questionnaires was received.

The sample comprised 54% females and 44% males. The age category reflected that 51% were between the ages of 26-40 and 43% were between 41-55. In terms of racial groups, the majority of the respondents were African (67%); followed by white respondents (15%) Indian respondents (10%) and then coloured respondents (6%).

The majority of the participants were married (65%), followed by single participants (23%). Widowed participants represented the smallest group of respondents at 0.60%. The remaining single participants were separated/divorced (9%) while 1% was cohabitating.

In relation to the category of number of years in current position, the majority of respondents (30%) had been in their current position for between 3 and 5 years, followed by 26.20% who had been in their current position for between 6 and 10 years while the smallest group (2%) had been in their current position for between 16 and 20 years. The study also found that 17% of the respondents had been in their current position for 1 to 2 years, 16% had been in their current position for between 11 and 15 years, 7% had been in their current position for less than one year, while 2% had been in their current position for 21+ years.

In terms of tenure in the public service, the study found that the majority of respondents (26%) had 11 to 15 years' experience, 25% had 6 to 10 years' experience, the smallest group of respondents (1%) had less than one year while 2% had between 1 and 2 years' experience in public service. The remainder of the respondents reported the following: 20% with 16 to 20 years' experience; 18% with 21+ years' experience; and 7% with 3 to 5 years tenure in the public service.

Table 3.1 Biographical distribution of sample (N = 172)			
Item	Category	Frequency	Percentage (%)
Gender	Male	76	44,20
	Female	93	54,10
	Missing values	3	1,70
Age	26–40 years	87	50,60
	41–55 years	74	43,0
	56–older	8	4,70
	Missing values	3	1,70
Race	White	26	15,10
	African	116	67,40
	Coloured	11	6,40
	Indian	18	10,50
	Other	1	0,60
	Missing values	0	0
Marital status	Single	40	23,30
	Married	112	65,10
	Widowed	1	0,60
	Separated/divorced	15	8,70
	Cohabiting	2	1,20
	Missing values	2	1,20
Number of years in current position	Less than a year	12	7,00
	1–2 years	29	16,90
	3–5 years	51	29,70
	6–10 years	45	26,20
	11–15 years	27	15,70
	16–20 years	3	1,70
	21+ years	4	2,30
	Missing values	1	0,60
Number of years in public service	Less than a year	2	1,20
	1–2 years	3	1,70
	3–5 years	12	7,00
	6–10 years	43	25,00
	11–15 years	44	25,60
	16–20 years	34	19,80
	21+ years	31	18,00
	Missing values	3	1,70

The largest groups of participants who participated in the study were married African females between the ages of 26 and 40 years, with an occupational tenure of between 3 and 5 years in their current position and who had been in public service for 11 to 15 years.

Three questionnaires were used to measure the relationship between the variables of concern to this study. The Orientation to Life Questionnaire (OLQ) (Antonovsky, 1987) was used to measure sense of coherence; the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003) was used to measure work engagement; and the Maslach Burnout Inventory – General Survey (MBI) (Maslach & Jackson, 1981) was used to measure the level of burnout.

Measuring instruments

The selection of the appropriate instruments for the purpose of this study was based on the theory on the constructs as studied in the literature review. The internal consistency of the instruments was measured using the Cronbach's alpha coefficient of reliability.

The first section of the measuring instrument was designed to obtain the socio-demographic details of the participants.

The Orientation to Life Questionnaire is a self-rating scale and consists of 29 items (Antonovsky, 1987) that measure the three dimensions of sense of coherence, namely, comprehensibility, manageability and meaningfulness. Antonovsky (1993) reported that the Orientation to Life Questionnaire had a Cronbach's alpha coefficient of between 0.85 and 0.91 while Rothmann (2002), reported an alpha coefficient of 0.89. Both these are regarded as acceptable (Van der Colff & Rothmann, 2009).

Despite the fact that Antonovsky (1993) mentioned that the three theoretical components should not be viewed as sub-scales, the literature shows that the repeated factor analysis of the Orientation to Life scale has failed to identify distinctive, separate factors representing the three sense of coherence components and is therefore argued that sense of coherence is a one-dimensional construct as the three components have not been statistically confirmed (Schumann, Hapke, Meyer, Rumpf & John, 2003; Van Schalkwyk & Rothmann, 2008). Thus, the factor analysis of the Orientation to Life scale was likely to produce a single factor solution that would not have reflected the three dimensions of sense of coherence. This study, in line with the literature, confirmed that the three-component factor could not be identified and thus a one-factor model was found.

The Utrecht Work Engagement Scale consists of 21 items and includes a 7-point frequency rating scale ranging from 0 (never) to 6 (always) and measures the three dimensions of work engagement, namely, vigour, dedication and absorption. Acceptable levels of reliability and internal consistencies have been found (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002) and validated in several countries (Bakker & Demerouti, 2007; Opie & Henn, 2013; Storm & Rothmann, 2003). Studies conducted in South Africa have revealed Cronbach's Alpha coefficients of 0.78 for vigour; .89 for dedication; and 0.78 for absorption (Schaufeli & Bakker, 2003). The total reliability score of the UWES exceeds 0.85 and is deemed to be acceptable (Schaufeli, Bakker & Salanova, 2006).

Studies in South Africa confirmed the three-factor model of the Utrecht Work Engagement Scale through structural equation modelling and high correlations between the three

dimensions (Storm & Rothmann, 2003). In a study conducted among police officers, the internal consistencies of the three sub-scales were established at 0.78 (vigour), 0.89 (dedication) and 0.78 (absorption) (Storm & Rothmann, 2003). Other studies among emergency workers have found internal consistencies of 0.70 (vigour), 0.83 (dedication) and 0.67 (absorption) (Naudé, 2003). The factorial validity of the Utrecht Work Engagement Scale has been confirmed by factor-analytical studies that confirmed the internal consistency results of the three sub-scales (Schaufeli, Bakker, Hoogduin, Schaap & Kladler, 2001; Schaufeli et al., 2002).

A single score of work engagement was used as the study found that in their responses, the respondents did not differentiate between the three dimensions of vigour, dedication and absorption. According to Schaufeli and Bakker (2003), a single, total score may be extremely valuable in empirical studies as a result of the high correlations between the dimensions. Other studies (Sonntag, 2003; Opie & Henn, 2013) found a one-factor model to be a better fit of data compared to the three-factor model. Storm and Rothmann (2003) validated the one-factor model by the psychometric analysis of the Utrecht Work Engagement Scale in a South African study.

The Maslach Burnout Inventory scale consists of 16 items and contains a 7-point rating scale ranging from 0 (never) to 6 (always) and measures the three sub-dimensions of emotional exhaustion, cynicism and professional efficacy. According to Bezuidenhout and Cilliers (2010), the sub-scales may be regarded as interrelated but are conceptually distinct.

The soundness of the psychometric properties of the Maslach Burnout Inventory scale has been tested in various studies, including the variance of the factor loadings as well as the reliability and validity of the instrument (Leiter & Schaufeli, 1996; Roelofs, Verbraak, Keijsers, De Bruin & Schmidt, 2005; Taris, Schreurs & Schaufeli, 1999). In studies conducted in South Africa, Storm and Rothmann (2003) confirmed the construct equivalence for the original Maslach Burnout Inventory scale. According to Jackson and Rothmann (2005), the construct equivalence of the three-factor Maslach Burnout Inventory scale among educators was found to be acceptable for both Afrikaans and African home language speakers.

Acceptable Cronbach's alpha coefficients were found in the South African studies. Coetzee and Rothmann (2004) found the four burnout scales related to reliability to be 0.85 (exhaustion), 0.70 (cynicism), 0.66 (professional efficacy) and 0.76 (cognitive weariness). In addition, Rothmann (2003) found the internal consistencies to be satisfactory with 0.72 (cynicism), and 0.91 (exhaustion) and also satisfactory alpha coefficients while Storm and

Rothmann (2003) found alpha coefficients of 0.88 for exhaustion, 0.78 for cynicism and 0.79 for professional efficacy. Rothmann and van Rensburg (2002) also found satisfactory alpha coefficients of 0.79 for exhaustion and 0.84 for both cynicism and professional efficacy.

Research procedure

The researcher obtained permission to conduct the study from the Head of the Public Service Institution while ethical clearance to conduct the study was obtained from the University of South Africa. The participants were informed that their participation in the study was voluntary and that they could complete the questionnaires and submit them electronically. A follow up was conducted to remind participants to submit the questionnaires.

The purpose of the study was explained to the participants while confidentiality and anonymity were emphasised in the covering letter. The participants were informed that completing and returning the questionnaires implied that they were granting permission for the questionnaires to be used for research purposes thereby providing informed consent for their participation in the study. The questionnaires were scored electronically.

Statistical analysis

The Statistical Programme for Social Sciences (SPSS, 2010) was used to analyse the data. Both descriptive statistics as well as inferential statistics were used in the analysis of the data. In order to establish the internal consistency or reliability as well as the validity of the measuring instruments (Orientation to Life Scale, Utrecht Work Engagement Scale and Maslach Burnout Inventory Scale), the Cronbach's alpha coefficients of the instruments were calculated and an exploratory factor analysis conducted. For the Cronbach's alpha coefficient, a score greater than 0,70 was deemed to be acceptable (Bezuidenhout, 2008; Nunnally & Bernstein, 1994).

The Kaiser-Meyer-Olkin Measure of sampling and the Bartlett's test of sphericity techniques were used to examine the adequacy of the sample and to conduct the exploratory factor analyses. The principal axis factoring extracting was used as it represents a computational method of extraction (Gropp, 2006).

The Pearson product-moment correlation (*Pearson r*) was used to determine the strength of the relationships between the variables, namely, sense of coherence and work engagement and the burnout sub-dimensions of exhaustion, and cynicism. The sub-dimension professional efficacy was found not to be normally distributed and thus the Spearman

correlation coefficient (*Spearman r*) technique was used to determine the strength of the relationship between professional efficacy and the other variables (Table 2). For the purpose of the study, the level of significance was set at 0,05 while r-values larger than 0,30 (medium effect) were considered to be practically significant (Cohen, 1992).

Standard multiple regression analysis was used to determine the relationship between sense of coherence and work engagement on burnout. The multivariate analysis of variance (MANOVA) was used to determine whether there were statistical significant differences between the socio-demographic groups (gender, age, race, marital status, number of years in current position and number of years in public service) and sense of coherence, work engagement and burnout (exhaustion, cynicism and professional efficacy). The analysis of variance (ANOVA) was used for the variable sense of coherence and the socio-demographic groups as well as the variable work engagement and the socio-demographic groups. A 95% confidence interval level was set and ($p \leq 0,05$) deemed to be statistically significant. It was therefore decided to use the effect sizes as denoting the practical significance of the findings (Steyn, 1999).

The psychometric properties of the Orientation to Life Questionnaire, Utrecht Work Engagement Scale and Maslach Burnout Inventory were investigated before the hypothesis was tested. The Kaiser-Meyer Olkin was used to determine the sample adequacy while the Cronbach's alpha coefficient was used to determine the reliability and accuracy of the instruments used.

RESULTS

This section discusses the descriptive and correlation statistics of significant value for each scale administered.

Descriptive statistics

The descriptive statistics for the three measuring instruments were reported upon with the means, standard deviations and Cronbach's alpha coefficient for the scales being computed. The mean or measure of central tendency indicates which sets of measure may be regarded as average while the standard deviation indicates the distance that describes the distribution of the individual scores from the mean (Steyn, Smit, Du Toit & Strasheim, 1994). The Cronbach's alpha coefficient provides an estimate of the consistency of the responses to the different scale items (Tredoux & Durrheim, 2013).

The means, standard deviations and Cronbach's alpha coefficient for the selected measuring instruments are presented in Table 3.2.

Item	Mean	SD	Skewness	Kurtosis	α
Total OLQ (20 items)	5.20	0.84	-0.56	0.42	0.86
Total UWES (20 items)	5.72	1.07	-0.79	0.51	0.93
Exhaustion (5 items)	3.23	1.49	0.58	-0.27	0.88
Cynicism (5 items)	3.02	1.37	0.62	-0.05	0.77
Professional Efficacy (6 items)	5.90	0.99	-1.26	1.78	0.77

Orientation to Life Questionnaire

It is clear from the results in Table 3.2 that in terms of reliability, the Cronbach's alpha coefficient of the overall Orientation to Life scale was 0.86. This was deemed to be acceptable as it was above the criterion of $\alpha > 0.70$ (Nunnally & Bernstein, 1994). These findings are in line with previous research conducted by Rothmann et al. (2005) who also reported a Cronbach's alpha coefficient of 0.86 for the Orientation to Life scale.

The scores demonstrated a relatively good sense of coherence on the overall Orientation to Life scale ($M = 5.20$; $SD = 0,84$). Barnard (2013) also reported a good score of 4.7 ($SD = 1,45$) in her study on sense of coherence. A good score for the Orientation to Life scale means that participants possess a high level of sense-making in respect of both their internal and their external environments.

Utrecht Work Engagement Scale

With regard to the internal consistency, the Cronbach's alpha coefficient of the overall Utrecht Work Engagement Scale was 0.93. This was also considered acceptable (Nunnally & Bernstein, 1994).

The participants also achieved a high work engagement score ($M = 5,72$; $SD = 1,07$). According to Viljoen (2012), a mean score of the total Utrecht Work Engagement Scale of 3

is considered average. This indicated that the mean score of the finding in this study was relatively high and thus that participants were engaged in their work.

Maslach Burnout Inventory

The alpha coefficients of the sub-dimension of the Maslach Burnout Inventory were exhaustion = 0.88; cynicism = 0.77; and professional efficacy = 0.77. These were regarded as acceptable as all three were above the guideline of 0.70 (Nunnally & Bernstein, 1994). The sub-dimension of professional efficacy was not normally distributed and the skewness and kurtosis scores were relatively high. The skewness and kurtosis showed a normal distribution for all the scales except for professional efficacy as the scores were (< 1) for skewness and (> 1) for kurtosis. The highest score reported was on the sub-dimension of professional efficacy ($M = 5.90$; $SD = 0,99$), thus indicating that participants felt good about their abilities and that they were confident in their work. The participants achieved the lowest scores for the sub-dimensions of exhaustion ($M = 3.23$; $SD = 1,49$) and cynicism ($M = 3.02$; $SD = 1,37$).

Exploratory factor analysis

For the purpose of investigating the underlying factor structure of the measuring instruments, an exploratory factor analysis was conducted. Principal component extraction analysis was used to determine the factorability of the items on the various measuring scales as well as the number of factors in each scale; eigenvalues (> 1) while the scree plot were used to determine the number of factors in each scale. A principal axis factor analysis was used on all the scales while the promax rotation technique was used on the scale with more than two factors, namely, the Maslach Burnout Inventory scale. No rotation was carried out on the single factors for the Orientation to Life Questionnaire and Utrecht Work Engagement Scales. A principal component analysis was conducted on the Orientation to Life Questionnaire, the Utrecht Work Engagement Scales and the Maslach Burnout Inventory.

Both the Kaiser-Meyer-Olkin Measure of sampling adequacy and Bartlett's test of sphericity techniques were used on the following scales.

The findings are presented in the table below:

Table 3.3 Factor Analysis on Sense of Coherence, Work Engagement and Burnout Scales			
	OLQ (items removed 2,3,5,6,10, 15, 17, 18, 26)	UWES (item 6 removed)	MBI
Kaiser-Meyer-Olkin (KMO) Measure of sampling	0,84	0,91	0,82
Bartlett's Test of Sphericity	1150,30	2046,83	1169,00
df	190	190	120
Sig.	0,00	0,00	0,00

The Kaiser-Meyer-Olkin measure of sampling adequacy exceeded the recommended value of 0,6 (Pallant, 2001) with a value of 0,84 (OLQ); 0,91 (UWES); and 0,82 (MBI), thus indicating a high accuracy assumption. Bartlett's Test of Sphericity was statistically significant ($p = 0,00$). The measures indicated that the items were factorable (Beukes & Botha, 2013) and that a factor analysis could be conducted.

Table: 3.4 Factor Loadings of the Orientation to Life Scale (sense of coherence)

Item	F^1	h^2
OLQ_1[14]	0,72	0,53
OLQ_1[27]	0,71	0,51
OLQ_1[13]	0,68	0,46
OLQ_1[7]	0,63	0,40
OLQ_1[11]	0,62	0,39
OLQ_1[20]	0,57	0,33
OLQ_1[4]	0,56	0,31
OLQ_1[12]	0,55	0,31
OLQ_1[22]	0,53	0,28
OLQ_1[28]	0,52	0,27
OLQ_1[23]	0,52	0,27
OLQ_1[29]	0,51	0,26
OLQ_1[1]	0,49	0,24
OLQ_1[24]	0,45	0,20
OLQ_1[21]	0,44	0,19
OLQ_1[8]	0,43	0,19
OLQ_1[19]	0,43	0,19
OLQ_1[16]	0,43	0,18
OLQ_1[9]	0,40	0,16
OLQ_1[25]	0,37	0,14
% Variance explained	29,40	29,40

Communalities were identified and items with less than 0,35 were removed in order to achieve a more reliable construct than may otherwise have been the case.

Table 3.5 Total Variance of the One Factor Scale Explained						
	Initial Eigen values			Extraction sums of squared loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,88	29,40	29,40	5,88	29,40	29,40

Extraction Method: Principal Component Analysis.

After removing items 2, 3, 5, 6, 10, 15, 17, 18 and 26, the remaining 20 items provided both improved fit statistics and acceptable internal consistency ($\alpha = 0,86$). All items on the component matrix exceeded 0,35 and were, deemed to be acceptable for sense of coherence as a one-factor construct. A proportion of the explained variance of 29,40% could be obtained only for this instrument and was considered as the cut-off point. Studies have shown that the sense of coherence scale (29) items do not match the original construct and thus in this study it was not possible to have 2/3/4 factors. Only one factor was decided upon due to the 29% variance that could be explained by the one factor.

According to Van Schalkwyk and Rothmann (2008), the original Orientation to Life Questionnaire (29 items) provides for a poor fit statistics and that the (29 items) scale has reported mixed results in all the studies conducted in South Africa. The concept of sense of coherence is therefore not well defined and it was recommended that the structure of the Orientation to Life Questionnaire scale be reassessed for future studies.

Table 3.6 Factor Loadings of Utrecht Work Engagement Scale (work engagement)		
Item	F¹	h²
WE_1[5]	0,83	0,69
WE_1[8]	0,81	0,67
WE_1[7]	0,80	0,65
WE_1[19]	0,79	0,63
WE_1[4]	0,79	0,62
WE_1[2]	0,74	0,55
WE_1[12]	0,74	0,55
WE_1[11]	0,73	0,53
WE_1[10]	0,72	0,52
WE_1[9]	0,72	0,51
WE_1[21]	0,70	0,49
WE_1[20]	0,63	0,40
WE_1[3]	0,62	0,38
WE_1[1]	0,62	0,38
WE_1[15]	0,60	0,36
WE_1[18]	0,53	0,28
WE_1[17]	0,53	0,28
WE_1[16]	0,53	0,28
WE_1[13]	0,51	0,26
WE_1[14]	0,47	0,22
% Variance explained	49,15	46,71

A factor analysis was conducted and item 6 removed from the analysis, as the loadings were smaller than 0,35 while they were found not to be measuring what they were supposed to measure as the responses did not indicate a theme. Accordingly, the data was skewed (Pallant, 2001).

Table 3.7 Total Variance of the One Factor Scale Explained						
	Initial eigenvalues			Extraction sums of squared loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9,83	49,15	49,15	9,343	46,716	46,716
2	1,55	7,74	56,90			
3	1,08	5,43	62,33			
4	1,05	5,27	67,61			

Extraction Method: Principal Axis Factoring.

The Eigen values showed that 4 factors could be extracted. However, this would not have been theoretically sound as the four factors extracted would not have loaded any further on the constructs as defined by each of the sub-dimensions of the Utrecht Work Engagement Scale and as mentioned by Schaufeli and Bakker (2003). Factor 1 had the most items loading on the scale and accounted for the highest percentage of the variance. The Kaiser-Meyer-Olkin measure was used to identify the one-factor model for the work engagement scale and was therefore used only to measure work engagement as a concept and not the three sub-dimensions, namely, vigour, dedication and absorption individually. The three-factor model (vigour, dedication, absorption) showed an extremely low validity and was therefore not usable. A one-factor model was then decided upon and this explained the 49% variance.

Table 3.8 Factor Loadings of the Maslach Burnout Inventory (Burnout)				
Item	F¹	F²	F³	h²
BO_1[1]	0,83			0,65
BO_1[2]	0,76			0,60
BO_1[3]	0,72			0,68
BO_1[4]	0,76			0,58
BO_1[6]	0,85			0,58
BO_1[5]		0,40		0,18
BO_1[7]		0,61		0,47
BO_1[10]		0,70		0,45
BO_1[11]		0,76		0,48
BO_1[12]		0,82		0,65
BO_1[16]		0,51		0,26
BO_1[8]			0,72	0,70
BO_1[9]			0,75	0,77
BO_1[13]			0,46	0,13
BO_1[14]			0,64	0,42
BO_1[15]			0,59	0,39
% Variance explained	30,87	44,84	50,46	

The Promax rotation was used and factor loadings greater than 0,35 considered. This resulted in all the items being retained for the factorial analysis. The reliability analysis indicated that items could be kept as they were found to be at reliable levels (0,88).

Factor	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,34	33,37	33,37	4,93	30,87	30,87
2	2,73	17,06	50,44	2,23	13,97	44,84
3	1,42	8,89	59,34	0,89	5,61	50,46

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalisation.

An eigenvalue greater than 1 meant that three factors could be extracted. This was in line with literature with the burnout construct being considered to have three factors and corresponding with the three sub-dimensions, namely, exhaustion, cynicism and professional efficacy. The principal axis factor analysis yielded results in line with the three-factor solution found in previous studies, thereby validating the scale (Bezuidenhout, 2008).

Correlation analysis between sense of coherence, work engagement and burnout

A correlation analysis between the one-factor sense of coherence, one-factor work engagement and the three burnout sub-dimensions (exhaustion, cynicism and professional efficacy) was conducted. The correlation coefficients between sense of coherence, work engagement and burnout are presented in Table 3.10.

Item	1	2	3	4	5
1. Sense of coherence	-	-	-	-	-
2. Work engagement	0,34 ⁺ *	-	-	-	-
3. Exhaustion	-0,25	-0,34 ⁺ *	-	-	-
4. Cynicism	-0,44	-0,49	-0,53 ⁺ **	-0,31 ⁺ *	-
5. Professional efficacy	0,44 ⁺ *	0,60 ⁺ **	-0,22	-	-

⁺ Statistically significant ($p < 0,01$); ^{*} Correlation is practically significant $r > 0,30$ (medium effect); ^{**} Correlation is practically significant $r > 0,50$ (large effect).

Statistical significant relationships were found between all the total scores. The variable sense of coherence was statistically positively correlated with the work engagement variable ($r = 0,34$; $p \leq 0,01$; medium practical effect) as well as with professional efficacy ($r = 0,44$; $p \leq 0,01$; medium practical effect) and negatively correlated with cynicism ($r = -0,44$; $p \leq 0,01$; medium practical effect).

The variable work engagement was statistically positively correlated with professional efficacy ($r = 0,67$; $p \leq 0,01$; large practical effect) and negatively correlated with both exhaustion ($r = -0,34$; $p \leq 0,01$; medium practical effect) as well as cynicism ($r = -0,49$; $p \leq 0,01$; medium practical effect). The sub-dimension of cynicism was statistically negatively correlated with both exhaustion ($r = -0,53$; $p \leq 0,01$; large practical effect) and professional efficacy ($r = -0,31$; $p \leq 0,01$; medium practical effect).

Table 3.10 indicated that H_1 (there is a significant relationship between sense of coherence, work engagement and burnout) could be accepted.

Multiple regression

In order to establish whether there is a significant relationship between sense of coherence and work engagement in relation to burnout (exhaustion, cynicism and professional efficacy) a standard multiple regression analysis was conducted. The results of the regression analysis are presented in Tables 3.12, 3.14 and 3.16

Model		df	F	Sig
1	Regression	1	10,62	0,00
	Residual	141		
	Total	142		
2	Regression	2	11,05	0,00
	Residual	140		
	Total	142		

- a. Dependent variable: Exhaustion
- b. Predictors: (Constant), Sense of Coherence
- c. Predictors: (Constant), Sense of Coherence, Work Engagement

Table 3.12 Multiple Regression Analysis with Sense of Coherence and Work Engagement as Predictors of Exhaustion

Model	Unstandardised coefficients		Standardised coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²	ΔR^2
	B	SE	BETA						
1 (Constant)	5,72	0,77		7,35	0,00	10,62	0,26	0,07	0,06
Sense of coherence	-0,48	0,14	-0,26	-3,25	0,00				
2 (Constant)	7,04	0,85		8,25	0,00	10,74	0,36	0,13	0,12
Sense of coherence	-0,30	0,15	-0,16	-1,97	0,05				
Work engagement	-0,39	0,12	-0,27	-3,27	0,01				

Dependent variable: exhaustion

Table 3.12 summarises the regression analysis that was conducted with sense of coherence and work engagement as predictors of exhaustion. The regression analysis explained that model 2 (sense of coherence together with work engagement) had a variance of ($\Delta R^2 = 0,13$). This meant that 12% of exhaustion could be attributed to low levels of sense of coherence and work engagement. The finding also showed that sense of coherence and work engagement negatively predicted exhaustion ($\beta = -0,16$ & $\beta = -0,27$; $t = -1,97$ and $t = -3,27$) with this indicating that low levels of sense of coherence and low levels of work engagement were significant predictors of exhaustion.

Table 3.13 Multiple Regression Analysis with Professional Efficacy as Dependent Variable

Model		df	F	Sig
1	Regression	1	30,34	0,00
	Residual	139		
	Total	140		
2	Regression	2	68,94	0,00
	Residual	138		
	Total	140		

a. Dependent variable: Professional efficacy

b. Predictors: (Constant), Sense of Coherence

c. Predictors: (Constant), Sense of Coherence, Work Engagement

Table 3.14 Regression Analysis of Sense of Coherence together with Work Engagement as Predictors of Professional Efficacy

Model	Unstandardised coefficients		Standardised coefficients	t	p	F	R	R ²	ΔR ²
	B	SE	BETA						
1 (Constant)	3,35	0,47		7,05	0,00	30,34	0,42	0,17	0,17
Sense of coherence	0,49	0,08	0,42	5,50	0,00				
2 (Constant)	1,51	0,42		3,60	0,00	68,94	0,70	0,50	0,49
Sense of coherence	0,25	0,07	0,22	3,47	0,00				
3 Work engagement	0,53	0,05	0,60	9,40	0,00				

Dependent variable: Professional efficacy

Table 3.14 summarises the regression analysis of sense of coherence together with work engagement as predictors of professional efficacy. The regression analysis explained that

model 2 (sense of coherence and work engagement) had a variance of ($\Delta R^2 = 0,50$). This meant that 49% of the level of professional efficacy could be explained by sense of coherence and work engagement. According to the results, model 2 showed that sense of coherence and work engagement had been found to be significant predictors of professional efficacy ($\beta = 0,22$ & $\beta = 0,60$; $t = 3,47$ & $t = 9,40$) with this indicating that high levels of sense of coherence and work engagement were significant predictors of professional efficacy.

Model		df	F	Sig
1	Regression	1	30,50	0,00
	Residual	140		
	Total	141		
2	Regression	2	29,51	0,00
	Residual	139		
	Total	141		

- a. Dependent variable: Cynicism
- b. Predictors: (Constant), Sense of Coherence
- c. Predictors: (Constant), Sense of Coherence, Work Engagement

Table 3.16 Regression Analysis with Sense of Coherence and Work Engagement as the Predictors of Cynicism									
Model	Unstandardised coefficients		Standardised coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²	ΔR^2
	B	SE	BETA						
1 (Constant)	6,67	0,66		10,02	0,00	30,50	0,42	0,17	0,17
Sense of coherence	-0,69	0,12	-0,42	-5,52	0,00				
2 (Constant)	8,26	0,69		11,81	0,00	29,51	0,54	0,29	0,28
Sense of coherence	-0,47	0,12	-0,28	-3,79	0,00				
3 Work engagement	-0,47	0,09	-0,37	-4,85	0,00				

Dependent variable: cynicism

Table 3.16 summarises the regression analysis with sense of coherence and work engagement as predictors of cynicism. The regression analysis explained that model 2 (sense of coherence together with work engagement) had a variance of ($\Delta R^2 = 0,28$). This meant that 28% of the level of cynicism could be explained by sense of coherence and work engagement. According to the results model 2 shows that sense of coherence and work engagement negatively predicted cynicism ($\beta = -0,28$ & $\beta = -0,37$; $t = -3,79$ and $t = -4,85$), thus indicating that low levels of sense of coherence and work engagement were significant predictors of cynicism.

The results of the regression analysis suggested that H_2 (sense of coherence and work engagement influence burnout levels) could be accepted.

Relationship between sense of coherence, work engagement, burnout and the socio-demographic variables

An ANOVA analysis was conducted to assess the relationship between the dimensions of sense of coherence and work engagement and the demographic variables of gender, age, race, marital status, number of years in current position and number of years in public service. The Levene's test of equality of error variances technique was used to test the

results for significance on the sense of coherence and work engagement scales in relation to the demographic groups. The results are presented in Tables 3.17 and 3.18.

Table 3.17 ANOVA – Differences in Sense of Coherence between the Socio-demographic Groups				
Variable	<i>F</i>	<i>df</i>	<i>p</i>	Partial eta squared
Gender	0,54	2	0,57	0,00
Age	2,53	3	0,05	0,04
Race	2,11	4	0,08	0,05
Marital status	0,37	5	0,86	0,01
Number of years in current post	2.01	7	0,05	0,08
Number of years in public service	0,78	7	0,60	0,03

* Statistically significant difference: $p \leq 0,05$

Table 3.17 shows that there were no statistical significant difference between sense of coherence and the various socio-demographic groupings as the significant levels were ($p \geq 0,05$), but with the exception of the variable for gender where the error variance showed a significance level of 0,03 although the significance level of the subject effects showed a score of 0,57. This was therefore not statistically significant as both values had to be ($p \leq 0,05$) for the variance to be significant and to be interpreted. In terms of the variables of age and number of years in current post, despite the fact that it was found that their levels of significance between subject effects were ($p \leq 0,05$), the significance level for both these variables was ($p \geq 0,05$) and therefore not significant.

It was therefore concluded that there were no statistical significant difference between sense of coherence and the various demographic groups, thus implying that the various demographic groups in the study had not shown any significant difference in the way they perceived, experienced or viewed the construct sense of coherence.

Table 3.18 ANOVA – Differences in Work Engagement and Socio-demographic Groups				
Variable	<i>F</i>	<i>df</i>	<i>p</i>	Partial eta squared
Gender	0,93	2	0,39	0,01
Age	1,33	3	0,26	0,02
Race	0,33	4	0,85	0,00
Marital status	0,40	5	0,84	0,01
Number of years in current post	1,28	6	0,26	0,05
Number of years in public service	0,63	7	0,80	0,02

* Statistically significant difference: $p \leq 0,05$

Table 3.18 showed that there were no statistical significant differences between the socio-demographic groups on work engagement as the significance levels for all the socio-demographic variables were $\geq 0,05$. Thus, the results showed that the various socio-demographic groups had not displayed any differences in the way they perceived, experienced or viewed the construct work engagement.

A MANOVA analysis was conducted to assess the relationship between the burnout sub-dimensions (exhaustion, cynicism and professional efficacy) and the socio-demographic variables of gender, age, race, marital status, number of years in current position and number of years in public service. The Wilk's lambda technique was used to test the results for significance.

The results of the MANOVA analysis showed that there were no statistically significant differences between the various socio-demographic groups – gender, age, race, marital status, number of years in current position and number of years in public service – in the sub-dimensions of exhaustion and professional efficacy. However, the results did show a statistically significant difference between the marital status groups in the sub-dimension of cynicism – see Table 3.19.

Table 3.19 ANOVA – Differences in Burnout (Cynicism) and Socio-demographic Groups

Variable	Value	F	df	p	Partial eta squared
Marital status	0,79	2,47	5	0,03	0,07

*Statistically significant difference: $p \leq 0,05$

The results presented in Table 3.19 illustrate that, in this study, marital status was the only variable that had an effect on the level of cynicism. The Wilk's lambda for marital status equalled 0,79 (F 2,47, p 0,03), thus highlighting the significant impact of this variable on the sub-dimension of cynicism. On the other hand, the partial eta squared (0,07) indicated a small practical effect for the difference between marital status and cynicism.

Accordingly, H_3 – Middle managers from different socio-demographic groups differ significantly in their levels of sense of coherence, work engagement and burnout – was partially rejected.

DISCUSSION

This study involved an investigation into whether there was a statistically significant relationship between sense of coherence, work engagement and burnout among middle managers in a public sector organisation. In addition, the study sought to determine whether there were any statistically significant differences between various socio-demographic variables in relation to sense of coherence, work engagement and burnout. The relationship between the various constructs relevant to the study was analysed in terms of the hypotheses that had been formulated for the purposes of the study.

The biographical profile of the sample

The study revealed a response rate of 57%. The largest group of participants comprised females (54%) between the ages of 26 to 40 years (51%). More than half of the respondents were from the African population group (67%) and were married (65%). In terms of the number of years in current position, the largest group of respondents (30%) were found to have been in their current positions for between 3 and 5 years. This is indicative of the transformation programme that has been implemented in the public service and also the movement of middle managers within departments. The largest group (26%)

with public service tenure had between 11 and 15 years, thus highlighting that middle managers have built their careers in the public service.

The relationship between sense of coherence, work engagement and burnout

Overall the results of the study revealed that the participants experienced high levels of sense of coherence, work engagement and professional efficacy and average levels of exhaustion and cynicism. According to Strümpfer (2002), it is highly probable that a strong sense of coherence that helps to provide meaning will strengthen both work engagement and professional efficacy and prevents burnout (Redelinguys & Rothmann, 2004).

Employees with a strong sense of coherence are most likely to be engaged in their work and possess the confidence required to cope with their work demands (Hakanen & Roodt, 2010). It is thus not surprising that the respondents in this study experienced a strong sense of coherence as well as decreased levels of exhaustion and cynicism as may otherwise have been the case and could be that they may view the stimuli in their working environment as making cognitive sense, manageable, relevant and meaningful (Patrick, 2011).

The results suggested that, overall, the managers had a strong sense of coherence (meaningfulness, comprehensibility and manageability); they were engaged in their work (vigour, dedication and absorption); they possessed the confidence required to manage their work (professional efficacy) and they probably also found meaning in their lives. This may have implied that the participants had both the personal resources and the ability to work in a complex environment and that they also possessed the confidence and coping ability required to manage their work challenges, thus explaining the average levels of exhaustion and cynicism found in the study. Similar results were found by Fourie et al. (2007) who suggested that employees with a strong sense of coherence perceive the stimuli from their environment as making cognitive sense; are controllable and significant; and worth their while to invest energy and meaning into their work. Studies in local government have indicated that sense of coherence has a moderating effect on job stressors, specifically exhaustion and professional efficacy (Rothmann et al., 2003).

Individuals who view the environmental stimuli to which they are exposed as chaotic, unpredictable and insignificant may be disconnected from and cynical towards their work and clients. Bezuidenhout (2008) cited that low levels of sense of coherence are associated with cynicism, especially in instances in which there is lack of social support in the workplace that results in individuals becoming disengaged in their work.

The respondents in this study appeared to be relatively healthy. It is possible that they may have acquired the necessary coping skills to function effectively in a public service environment. The score for work engagement (vigour, dedication and absorption) showed that, in the main, the managers were energetic, resilient and enthusiastic as well as absorbed in and connected to their work. In general, the results implied that, on the whole, middle managers in this public sector organisation were motivated and engrossed and optimistic about their work and in possession of problem solving skills.

In terms of burnout, the study suggested that the middle managers experienced high levels of professional efficacy and moderate levels of exhaustion and cynicism. In their studies Sahu and Yadav (2013) also found that public sector managers scored higher on professional efficacy compared to exhaustion and cynicism. Similar results were found by Viljoen (2012) who reported, moderate to low levels of exhaustion and cynicism and high levels of professional efficacy in the engineering sector. The high levels of professional efficacy suggested that the middle managers assessed their own ability to cope with their work demands positively and probably experienced feelings of being competent in achieving their work goals (Fourie et al., 2007).

The average levels of burnout (exhaustion and cynicism) were also associated with a strong sense of coherence, thus indicating that the managers were probably equipped with resilience skills to deal with the demands of their working environment as sense of coherence is also deemed to be a stress-coping ability (Harry & Coetzee, 2011; Johnston, de Bruin, Geldenhuys, Györkös, Massoudi & Rossier, 2013; Rothmann et al., 2003; Van der Colff & Rothman, 2009). In view of the fact that there is a negative relationship between exhaustion, cynicism and work engagement, may suggest that managers can become detached and disengaged from their work. Employees who are cynical or detached from either their work or their clients are likely to indulge in negative self-assessments and also demonstrate a lack of confidence in their ability. This may lead to negative work outcomes such as a decrease in work performance (Hakanen & Roodt, 2010).

According to Cordes and Dougherty (1993), managers who occupy occupational positions where the working environment is characterised by on-going and intense stressors tend to report higher levels of stress compared to other workers. The results of this study implies that the middle managers experienced average levels of burnout (exhaustion and cynicism) despite the fact that they were working in an environment that is characterised by rigid and controlling administrative practices. On the other hand, Hakanen and Roodt (2010) argued that job demands, such as time pressures, may also result in a strong, positive relationship with the job resources, for example, supervisory support and work engagement, and

therefore implies that it is possible for high job demands to result in employees becoming more engaged in their work if the job resources are applied effectively. Furthermore, managers experience greater exposure to personal development opportunities such as leadership skills and may therefore have developed the knowledge and ability required coping with the demands of the working environment (Viljoen, 2012).

The wellbeing model that emphasises flourishing as a positive attribute may be used as a theoretical framework (Keyes, 2002; 2005; 2007) to study positive functioning and refers to individuals feeling good and functioning optimally. The ability to function well includes being engaged and self-determined in the work context; experiencing self-efficacy and resilience; being optimistic and finding meaning in work. Xanthopoulou (2007) cited that personal resources such as self-efficacy, self-esteem and optimism are referring to an individual's positive self-assessment regarding his/her capability to successfully manage the stimuli in the environment. In addition to this, personal resources are associated with stress resilience and the positive effects of physical and emotional wellbeing. A personal resource such as a strong sense of coherence is cited as a resilient coping strategy that leads to positive psychological outcomes such as a high level of work engagement and lower levels of burnout (Hakanen & Roodt, 2010).

The dimensions of the sense of coherence and work engagement constructs could be associated with the flourishing characteristics, for example, comprehensibility refers cognitive ability and cognitive functioning which enables individuals to make an appropriate assessment of the environmental stimuli and to invest energy and become absorbed in their work; manageability refers to the individual's belief that he/she possesses the required resources and will use these resources in appropriate actions; while meaningfulness and dedication refer to the emotional wellbeing component of flourishing and include feeling hopeful and positive. According to Xanthopoulou (2007), wellbeing is affected by the individual's assessment of his/her resources (personal and job related) and may be a precursor to either work engagement or burnout. Thus, flourishing employees are able to use their personal strengths in order to maximise their levels of work engagement and prevent or reduce burnout (Xanthopoulou, 2007).

In line with the wellbeing model (Keyes, 2002; 2005; 2007), this study revealed that individuals who experience the positive attributes of flourishing (feeling good and functioning well) might experience emotional, psychological and social wellbeing. In accordance with this theoretical model, the middle managers in the sample experienced a strong sense of coherence that implies that they perceived and felt positive about their work; they were engaged in their work; and that they had a high sense of belief in themselves. According to

Keyes (2002), this represents a positive reflection of their wellbeing as flourishing employees are considered to be functioning in an optimal state and are experiencing the positive attributes that may lead to positive outcomes for the individual, for example, job satisfaction, as well as for the organisation, for example an increase in work performance.

Relationship between socio-demographic groups and the constructs

The overall results indicated that there were no statistically significant differences between the socio-demographic variables and sense of coherence, work engagement and the two sub-dimensions of the burnout scale, namely, exhaustion and professional efficacy. The study did, however, reveal a significant relationship between marital status and the sub-dimension of cynicism. In view of the fact that the scores for the individual categories in the marital status group were not significant, it was not possible to ascertain which category in the marital status group had had a significant impact on cynicism.

Gender

The majority of the participants in the study were females. Although previous studies have revealed that males experience higher levels of engagement (Wajid et al., 2011) and lower levels of burnout compared to females (Harry, 2011), this study found no relationship between the gender variable in relation to sense of coherence, work engagement and burnout. Other studies have also not been able to confirm a relationship between gender, sense of coherence and burnout (Abbas, Roger & Asadullah, 2012; Ochiai, Daitou & Aoki, 2012).

Age

In her studies amongst academics, Bezuidenhout (2008) reported that the older participants experienced higher scores of vigour and absorption (work engagement) as well as comprehensibility (sense of coherence) compared to the younger participants. However, despite the assumption that a person's level of sense of coherence strengthens with age (Antonovsky & Sagy, 1986) overall, this study revealed no difference between the various age groups and the relevant constructs.

Race

The study confirmed the findings of previous studies (Bezuidenhout, 2008; Harry, 2011) and found no relationship between the different racial groups and the three wellbeing constructs. However, Bell and Barkhuizen (2011) did report a significant relationship between white respondents and work engagement compared to other race groups while Segal (2009)

reported that blacks and Indian employees experienced lower levels of work engagement compared to white employees. With the sense of coherence scale, Mayer (2011) found that black and Indian managers had a stronger sense of coherence compared to Afrikaans and English speaking whites and German managers, while Barnard et al. (2010) reported that blacks and mixed race employees had a stronger sense of coherence compared to white and Indian employees

Marital status

The analysis of variance did not indicate any significant difference between marital status and sense of coherence and work engagement despite the fact that other studies have reported significant differences in the variable of marital status and the three constructs. In her studies, Harry (2011) found that widowed participants scored significantly higher than the divorced, single and married participants on the sense of coherence and affective wellbeing variables. Wajid et al. (2011) reported that work engagement has been found to be significantly higher among married teachers compared to those that were not married.

This study found a significant relationship between marital status and depersonalisation or cynicism. However, the results could not differentiate between the different categories of those in the marital status group, as the scores were not significant. Nevertheless, more than 65% of the respondents in the study were married with marital status, according to the analysis of variance, showed a significant difference with the sub-dimension of depersonalisation. In view of the fact that more than half of the sample was married, it may be assumed that people who had indicated that they are married may also have experienced depersonalisation or cynicism. In their studies Du Plooy and Roodt (2013) also found that married or cohabitating people demonstrated higher levels of burnout compared to the single participants.

Number of years in current position and years in public service

Statistically this study found no difference between number of years in the current position and the number of years in public service and sense of coherence, work engagement and burnout. In her studies, Bezuidenhout (2008) found a significant positive relationship between years of employment as an academic and comprehensibility (sense of coherence). Similar results were found by Feldman (2011) who reported a positive relationship between sense of coherence and worker experience, thus implying that the longer the individual is employed the more it may be expected that such a person will understand the demands of his/her job on a cognitive level.

CONCLUSION

The findings of this study revealed new insights into the way in which public officials and, in particular middle managers, cope with their job demands and the impact such coping has on their wellbeing. According to Carlström (2012), the role of middle managers in their position between senior management and lower level employees is important as middle managers may strongly influence change in their role of communicating strategy and change to staff members. It is therefore imperative to consider the wellbeing and functioning of managers; how they perceive and respond to their working environment; and their belief in their own abilities toward their work. Accordingly, this was the focus of this study. The study found that middle managers in the sample possessed a strong sense of coherence and work engagement as well as a strong sense of professional efficacy.

LIMITATIONS OF THE RESEARCH

In view of the fact that this study involved a cross-sectional research design, the limitation of the study was that it did not provide information on the causality of the research results. There are limited studies on wellbeing indicators among middle managers in public service and thus information on the impact of wellbeing on sense of coherence, work engagement and burnout, specifically of middle managers, is limited.

This study involved self-reporting measures that may have led to common method variance and could result in biased regression coefficients (Antonakis, Bendahan, Jacquart & Lalive, 2010).

The Orientation to Life Questionnaire (29 items) scale is not a well-defined construct and studies conducted in South Africa using this questionnaire showed mixed results (Van Schalkwyk & Rothmann, 2008). It is thus essential that the Orientation to Life Questionnaire scale be assessed for future studies in South Africa.

The size of the sample ($N = 172$) was too small to be able to generalise the findings to either the whole population or to other occupational levels in the wider government sector.

RECOMMENDATIONS

The study should be extended to the same population (middle managers) in other government organisations in order both to confirm the findings of this study and to generalise the study.

The shorter version of the sense of coherence scale should be used as it provides a better statistical fit (Van Schalkwyk & Rothmann, 2008).

A longitudinal study is recommended in the future in order to determine the cause and effect of the wellbeing constructs and to assess participant experiences over a longer period of time than was the case in this study.

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CHAPTER 4

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

Chapter four presents the conclusions drawn from the study; the limitations of the literature review and the empirical results of the study. Recommendations for future research and also the practical application of the research findings for future research are also discussed.

4.1 CONCLUSIONS

Based on both the literature review and the empirical study, this section focuses on the conclusions drawn from the study.

4.1.1 Conclusions regarding the literature review

The general aim of this research study was:

- To conceptualise the theoretical relationship between sense of coherence, work engagement, and burnout in relation to employee wellbeing.
- To determine theoretically (based on a review of relevant literature) the impact of gender, age, race, marital status, number of years in current position and number of years in public service on the variables sense of coherence, work engagement and burnout.
- To determine the implications of the theoretical relationship between sense of coherence, work engagement and burnout for wellness practices in the public service sector.

The research results showed that the general aim of the study was achieved by the addressing and realising the research objectives. Conclusions were drawn pertaining to the research objectives regarding the relationship between sense of coherence, work engagement and burnout in relation to employee wellbeing.

4.1.1.1 First objective: To conceptualise the theoretical perspective of sense of coherence, work engagement, and burnout in relation to employee wellbeing

This first objective of the literature review was realised and the theoretical relationship between sense of coherence, work engagement and burnout in relation to employee wellbeing was conceptualised.

In order to conceptualise sense of coherence, work engagement and burnout, Antonovsky's (1979) theory on sense of coherence and work engagement as described by Schaufeli and Bakker (2004) were used as a theoretical framework which is based on the salutogenesis paradigm that relates to remaining healthy and engaged while being exposed to complex and stressful environments (Antonovsky, 1987). Burnout is considered to be the opposite of work engagement and is based on the job demands-resources model of ineffective coping in dealing with prolonged work stressors (Maslach et al., 2001).

The literature suggests that sense of coherence may either impede or facilitate one's ability to deal with stressful situations. A strong sense of coherence implies that the individual concerned possesses the personal resources (psychological wellbeing) to respond to challenges and may also be a moderating variable in work engagement as well as job stress and burnout (Rothmann et al., 2003). Sense of coherence is considered to be a predictor of perceptions and therefore individuals with a strong sense of coherence will view environmental stressors as both manageable and controllable and that they have the ability and resources required to manage these stressors effectively (Fourie et al., 2007).

A strong sense of coherence (psychological wellbeing) equips the individual with various coping strategies and these have a positive influence on emotional wellbeing (Nahlén & Saboonchi, 2010). Positive emotion in return influences people's cognitive states, functioning and mental health (Fredrickson & Losada, 2005; Menk et al., 2010).

A weak sense of coherence is negatively correlated with work engagement and is associated with an inability to deal with prolonged job stressors (Rothmann et al., 2003).

It can therefore be concluded that even though sense of coherence is considered to be a generally stable orientation, it may be argued that sense of coherence is not as stable as may be expected over the adult lifespan and that it may be influenced by occupational stressors (Antonovsky, 1987; Eriksson & Lindstrom, 2005; Harry, 2011; Wainwright et al., 2007).

Work engagement is positively associated with sense of coherence which implies that employees who are engaged are fully connected and absorbed in their work; experience a sense of significance; are optimistic; and experience job satisfaction and wellbeing (Bakker, 2011; Fourie et al., 2007; Kahn, 1990).

Burnout is experienced by individuals who lack adequate personal resources (sense of coherence, resilience and dispositional optimism) and who are exposed to chronic and persistent stress accompanied by low levels of emotional, psychological and emotional

wellbeing (De Lange et al., 2008; Jordan et al., 2010; Lee & Choi, 2010). Burnout is associated with ill-health and is a symptom of languishing – the opposite of flourishing. It is characterised by symptoms of depleted physical and emotional resources that result in emotional and cognitive detachment from work (Keyes, 2002; 2005; 2007; Van der Colff & Rothmann, 2009). Ineffective coping and burnout are therefore negatively related to a weak sense of coherence (Feldt, 1997).

The wellbeing or flourishing model (Keyes, 1987) contextualises the concept of sense of coherence as the model refers to wellbeing in relation to experiencing life satisfaction as well as effective functioning. Xanthopoulou (2007) argued that sense of coherence is strongly associated with wellbeing, because it relates to the individual possessing the ability to respond effectively to demands in the environment and to successfully prevent burnout. Flourishing also refers to individuals experiencing job satisfaction and work engagement that are positively associated with organisational outcomes such as increased work performance, reduced turnover intentions, low absenteeism and high customer satisfaction (Bakker et al., 2008).

An understanding of the relationship between sense of coherence, work engagement, burnout and its impact on employee wellbeing is particularly relevant to public service which is considered to be a stressful working environment and is associated with ill-health and burnout (Borg & Riding, 1991; Hornbaek, 2006; Kyriacou, 1987; Laughlin, 1984; Nilsson, 2010).

4.1.1.2 Second objective: To determine theoretically (based on a review of the relevant literature) the role of gender, age, race, marital status, number of years in current position and number of years in public service in the variables of sense of coherence, work engagement and burnout

The second objective of the literature review was realised. The literature suggests that the socio-demographic variables such as gender, age, race, marital status, number of years in current position and number of years in public service may impact on the constructs of sense of coherence, work engagement and burnout. However, various studies have reported inconsistent findings with regard to the role of gender, age, race, marital status, number of years in current position and number of years in public service in relation to sense of coherence, work engagement and burnout.

4.1.1.3 Third objective: To determine the implications of the theoretical relationship between sense of coherence, work engagement and burnout for wellness practices in the public service sector

The third objective of the literature review was also realised. The literature review revealed that sense of coherence and work engagement are derived from the salutogenic paradigm and imply that employees are functioning optimally and experiencing job satisfaction. These may have positive outcomes for the organisation, for example, work performance and low absenteeism (Bakker et al., 2008; Diedericks, 2012). Employee wellbeing programmes should therefore include programmes that address positive cognitive states as the relationship between sense of coherence and work engagement implies positive outcomes for the individual in terms of coping ability as well as for the organisation, for example, enhanced work performance and improved service delivery (Louw et al., 2012).

It can therefore be concluded that if organisations are to be successful, employee wellbeing programmes should be implemented to support and promote the wellbeing of employees and that the design of such programmes should focus on coping ability.

4.1.2 Conclusions regarding the empirical study

The main aims of this study were:

- To investigate the nature of the empirical relationship between sense of coherence, work engagement and burnout in relation to wellbeing for a sample of respondents from a public service organisation in South Africa.
- To empirically investigate whether differences exist between gender, age, race, marital status, number of years in current position and number of years in public service with regard to sense of coherence, work engagement and burnout.
- To formulate recommendations for employee wellness in public service and possible future research based on the findings of the research.

The empirical study yielded the following findings: Hypothesis H₁ – a statistical significant relationship exists between sense of coherence, work engagement and burnout – was accepted. Hypothesis H₂ – individuals' level of burnout is influenced by the presence of sense of coherence and work engagement – was accepted. However, hypothesis H₃ – there is a significant difference between the socio-demographic groups such as gender, age, race, marital status, number of years in current position and number of years in public service in

their levels of sense of coherence, work engagement and burnout – was partially rejected.

A discussion including conclusions drawn from the findings for each research objective and hypothesis, follows:

4.1.2.1 First objective: To investigate the nature of the empirical relationship between sense of coherence, work engagement and burnout in relation to wellbeing for a sample of respondents in a public service organisation in South Africa

The study revealed the managers in the sample as possessing high levels of sense of coherence, thus indicating that they were functioning positively and could therefore be described as being engaged in their work (Seligman & Csikszentmihalyi, 2000). In other words, the results suggest that the participants in the study experienced a strong sense of coherence and also a high level of work engagement. Similar results were found in the studies conducted by Fourie et al., (2007) who reported that non-professional counsellors exposed to workplace trauma experienced a strong sense of coherence and work engagement and low burnout.

Furthermore, the results also indicated a positive relationship between sense of coherence, work engagement and professional efficacy, and a negative relationship between sense of coherence, work engagement, exhaustion and cynicism. Similar results were reported by Rothmann et al. (2003), who found that a higher score for sense of coherence resulted in a higher score for professional efficacy and a lower score for exhaustion. Thus, sense of coherence may be considered to be a significant variable and one that acts as defence against burnout. This contributes to the assumption that a strong sense of coherence is negatively correlated with burnout (Strümpfer, 2003).

It may therefore, be concluded that there is a relationship between a strong sense of coherence and work engagement and a negative relationship between a weak sense of coherence, work engagement and burnout. The association of a strong sense of coherence and work engagement refer to the emotional, psychological and social states that are characteristics of wellbeing. The coping skills driven by a strong sense of coherence are important in dealing with a stressful and changing working environment. Keyes's model on wellbeing (2002; 2005; 2007) suggests that individuals who experience affective wellbeing also function well and therefore they perceive their environment to be meaningful and manageable; are engrossed in and dedicated to their work; and they will therefore experience positive outcomes such as good health, and job satisfaction as well as improved work performance. According to Viljoen (2012), a strong sense of coherence provides

individuals with the coping strategies required to function and engage in their work and therefore lead to improved wellbeing. The results of the study indicated that the participants experienced low to moderate levels of exhaustion and cynicism with higher levels of professional efficacy. Similar findings pertaining to a negative relationship between sense of coherence and burnout were reported by Viljoen (2012).

4.1.2.2 Second objective: To empirically investigate whether differences exist between gender, age, race, marital status, number of years in current position and number of years in public service with regard to sense of coherence, work engagement and burnout.

The following conclusions regarding the impact of the socio-demographics on the variables of sense of coherence, work engagement and burnout were drawn:

(a) Gender has no significant influence on sense of coherence, work engagement and burnout.

Overall there was no significant difference between the male and female respondents in relation to the three variables related to the study.

(b) Age has no significant influence on sense of coherence, work engagement and burnout.

Overall there were no significant differences found between the different age groups and the three variables related to the study.

(c) Race has no significant influence on sense of coherence, work engagement and burnout.

There were no significant difference found between the different race groups and the three variables in the study.

(d) Marital status has no significant influence on sense of coherence, work engagement and burnout.

Overall the study found no significant difference between sense of coherence, work engagement and the burnout dimensions, namely, emotional exhaustion and lack of professional efficacy, in the marital status group. However, the married participants did report higher scores on the cynicism dimension of the burnout construct.

- (e) Number of years in current position has no significant influence on sense of coherence, work engagement and burnout.

Overall there was no significant difference between the number of years in a position and the three variables related to the study.

- (f) Number of years in public service has no significant influence on sense of coherence, work engagement and burnout.

There was no significant difference found between the number of years in public service and the three variables related to the study.

Unlike previous research findings, the findings of this study indicated that there were no significant difference between the socio-demographic variables and sense of coherence, work engagement and the burnout dimensions of emotional exhaustion and professional efficacy except for the variable marital status that reported a higher incidence of cynicism under the burnout construct. Previous studies also found no significant difference in terms of race and the three constructs (Bezuidenhout, 2008) as well as between gender and sense of coherence and burnout (Abbas et al., 2012; Ochiai et al., 2012).

Furthermore, previous research found significant differences in gender and that males reported higher levels of work engagement compared to females (Wajid et al., 2011); older participants experienced higher levels of vigour and absorption as well as comprehensibility compared to younger participants (Bezuidenhout, 2008); while married participants experienced higher levels of work engagement (Wajid et al., 2011) and married or cohabitating employees experienced higher levels of burnout compared to their unmarried counterparts (Du Plooy & Roodt, 2013); and employees with more years of experience reported a stronger sense of coherence compared to those with fewer years of experience (Feldman, 2011).

The results of this study indicated that, irrespective of socio-demographic status such as gender, age, race, marital status, number of years in current position and number of years in public service, the participants in the study possessed the ability and skill required to conduct a successful assessment of their working environment and its challenges; they were competent to engage effectively in their work; and they demonstrated a positive and healthy outlook on their work. In addition, the marital status group reported higher levels of depersonalisation or cynicism. Previous studies on this phenomenon are limited with the exception of the study by Du Plooy and Roodt (2013) who reported that married or cohabitating employees experience burnout that may be related to them experiencing work

and private life pressures as challenging.

4.1.2.3 Third objective: To formulate recommendations for employee wellness in public service and also for possible future research based on the findings of this research study.

The findings of the study indicated that the participants experienced a strong sense of coherence which is related to resilience and coping although it has been reported that those who show higher levels of depersonalisation or cynicism may experience lower levels of control and commitment that may lead to a decrease in resiliency and an increase in powerlessness (De Beer, Pienaar & Rothmann, 2013). However, this study found that, although those individuals in the marital status group experienced cynicism or depersonalisation, overall, the majority of the sample reported a strong sense of coherence that suggest that they may be perceived to be in control of their work and possess the necessary resources to perform their work optimally.

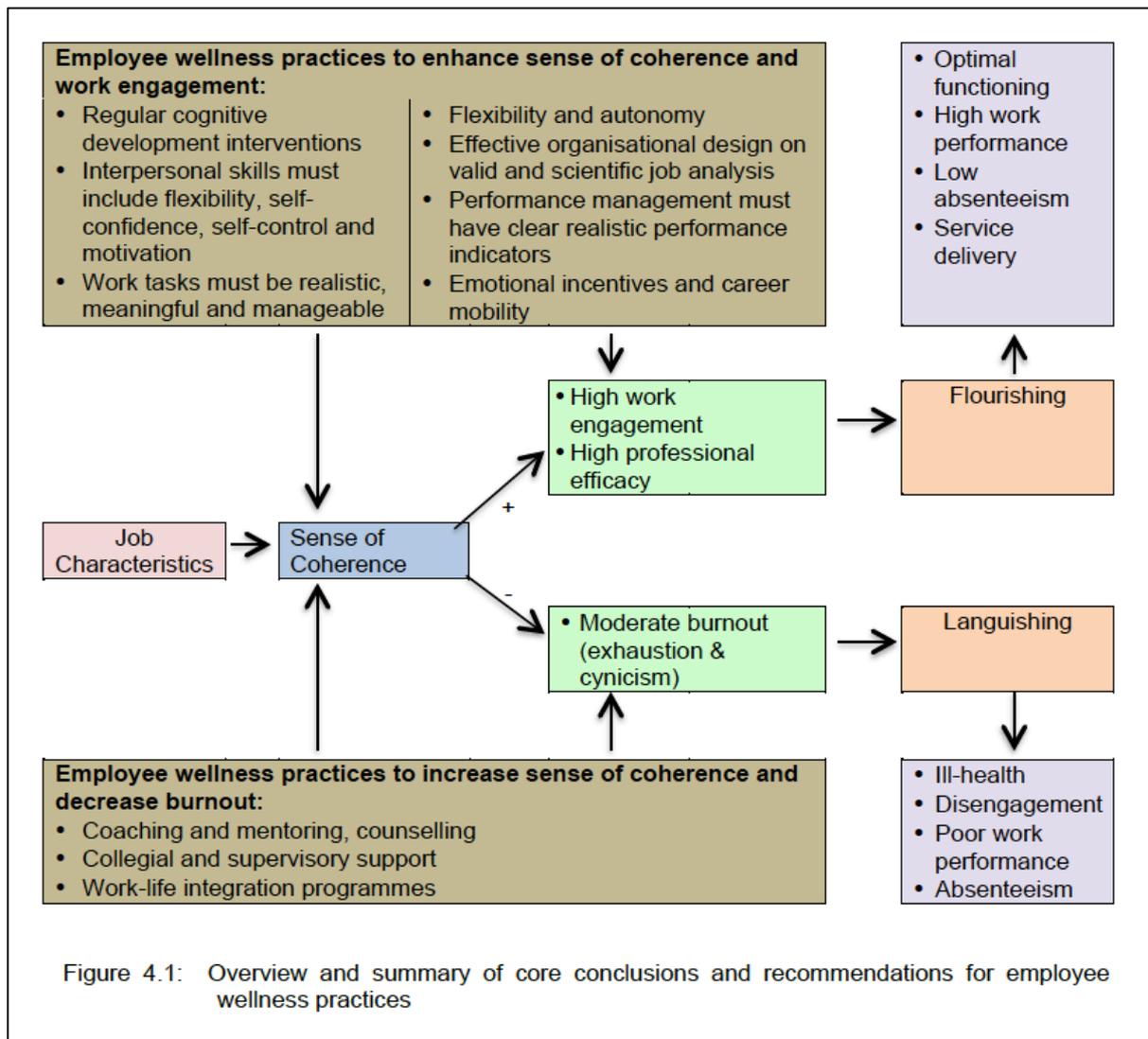
The study also revealed, even though the working environment in the public sector is considered to be stressful, the participants in this study were able to cope with their work challenges and to function optimally (Borg & Riding, 1991, Kyriacou, 1987; Laughlin, 1984). The strong sense of coherence, work engagement and professional efficacy also related to Keyes' flourishing model as the managers experienced their work as meaningful (emotional wellbeing). Sense of coherence and work engagement are associated with both psychological and social wellbeing.

The results suggested that the relationship between sense of coherence, work engagement and burnout has important implications for employee wellbeing programmes and also that a strong sense of coherence equips individuals with the coping ability required to function optimally, irrespective of environmental challenges and are therefore indications of wellbeing (Xanthopoulou, 2007). The results are also relevant to the wellbeing of employees since salutogenic functioning and flourishing refer to individuals functioning optimally and possessing the ability to manage their stressors while remaining healthy (Keyes, 2009).

It is anticipated that the knowledge derived from this study will have a positive impact on the public service as the study found that the managers in this study possessed the coping ability required to thrive in the public sector environment and that they were also engaged in their work. The latter tends to give rise to an increased work performance and low absenteeism, which are positively associated with service delivery.

It is essential that employee wellbeing programmes focus on programme outcomes such as

healthy individuals and organisations and therefore that they should promote the positive psychological wellbeing which include a strong sense of coherence and work engagement as a vehicle with which to manage or prevent burnout (Keyes, 2009).



4.1.3 Conclusions regarding the central hypothesis

In relation to the central hypothesis of this study, it may be concluded that the participants' personal resources such as sense of coherence were positively related to positive functioning such as work engagement and professional efficacy. According to Strümpfer (1990), professional efficacy is associated with a strong sense of coherence as it provides the individual with an understanding of the characteristics of chronic stressors and promotes the ability to cope as a result of self-belief and the application of resources compared to feeling hopeless. According to Bekwa and De Beer (2009), individuals with a high level of professional efficacy function optimally in the workplace; possess confidence in their

abilities; and are likely to be prepared to overcome challenges.

The study found no differences in terms of gender, age, race, marital status, number of years in current position and number of years in public service in relation to sense of coherence, work engagement and burnout (emotional exhaustion and professional efficacy) although the marital status group did show a relation to the dimension of depersonalisation or cynicism. Nevertheless, the empirical study provided sufficient statistically significant evidence to support the central hypothesis.

4.1.4 Conclusions regarding contributions to the field of Industrial and Organisational Psychology

The findings of the empirical study provided new insight into the relationship between sense of coherence, work engagement and burnout within the public sector environment that is reported to be a stressful working environment. The findings added a unique dimension to the understanding of the relationship between salutogenic characteristics such as sense of coherence, psychological functioning, for example, work engagement and individual wellbeing which may contribute to employee wellness programmes and practices in public service. Practitioners who use the theoretical models for example Keyes' Flourishing model as a foundation may use the findings of this study to promote personal resources such as sense of coherence and its impact on employee functioning as well as personal and work related wellbeing.

In terms of the results of the empirical study, the study findings provided new insight into the relationship between sense of coherence, work engagement and burnout among middle managers within public service. Despite the fact that the public service is often described as a rigid and stressful environment, the results of the study showed that the participants were able to cope in the complex working environment of the public service; they were engaged in their work; and they demonstrated low to moderate levels of burnout. This knowledge provides new insights into the coping ability of middle managers and their functioning in public service as well as how employee wellness programmes could strengthen the coping ability of employees to work in a stressful environment while remaining healthy.

According to Williams (2009), it is important that public service officials possess personal strengths such as self-efficacy, self-control, social and emotional intelligence, confidence, flexibility and motivation. Therefore, it is recommended that the design of employee wellness programmes should be structured to include consistent messages that emphasise individual strengths associated with positive emotions and wellbeing (Botha & Mostert,

2014). It is therefore incumbent on practitioners to promote effective interpersonal skills and coping abilities so that employees' understanding of the role of personal resources such as a strong sense of coherence may be enhanced as it has a direct impact on assessing and taking control of one's circumstances which leads to positive outcomes such as personal wellbeing.

Factors associated with increasing work engagement are: ensuring that officials have a manageable workload; support from colleagues and seniors; feeling valued and finding meaning in work; participation in consultative processes, autonomy and being offered developmental and growth opportunities (Rothmann et al. 2003). In addition, health and positive emotions are also related to work engagement and wellbeing (Demerouti, Bakker, De Jonge, Janssen & Schaufeli, 2001; Rothbard, 2001, cited in Botha & Mostert, 2014).

Despite the fact previous studies reported that married persons experience lower levels of burnout compared to their unmarried counterparts (Harry, 2011; Maslach et al., 2001), the findings of this study revealed that the participants in the marital status group reported higher levels of cynicism or depersonalisation. It is thus recommended that practitioners should consider employee wellness interventions that relate to work-life integration which include stress audits; stress management programmes; as well as a review of organisational policies and programmes to support employees who have multiple responsibilities both within and outside of the organisation.

Overall, this study did not find significant differences between the socio-demographic variables and sense of coherence, work engagement and burnout (exhaustion and professional efficacy). Nevertheless, differences between diverse population groups and sense of coherence, work engagement and burnout remain an important issue.

The overall results of this study may be said to have contributed to the existing body of knowledge on employee wellness as the study brought to light new knowledge and information on the wellbeing experiences of middle managers in a public service environment. This knowledge and information could therefore contribute to interventions aimed at increasing employee wellbeing amongst managers.

4.2 LIMITATIONS

The limitations identified in the literature review as well as empirical study are discussed in the following section.

4.2.1 Limitations of the literature review

Despite the fact that extensive research has been conducted on sense of coherence, work engagement and burnout, limited studies have been conducted within public service and with specific reference to middle managers.

This study used Keyes' model on wellness (2002; 2005; 2007) as a framework and therefore no other theoretical models on wellbeing were explored.

According to Williams (2009), it is not clear whether personal resources and their relationship with work characteristics are temporary and fluctuating experiences or else fixed qualities. Longitudinal studies are therefore recommended to assess such personal resources and psychological outcomes over time and whether they may act as mediators.

4.2.2 Limitations of the empirical study

The limitations of the empirical study are discussed in this section. As mentioned in Chapter 3, the cross-sectional research design that was used did not provide any information on cause and effect issues.

The convenience sampling used impacted on the generalisability of the results. A random sampling method may possibly be used to improve the generalisability of the findings. The size of the sample ($N = 172$) was too small to enable the generalisation of the findings either to the whole population of middle managers or to other occupational levels in the wider government sector. It is therefore cautioned that the findings of this study not be generalised to the general population of middle managers within the public sector.

The role of job characteristics was not included in the study, for example, job resources and job demands and their impact on psychological functioning and outcomes. Previous studies indicated that the public service is a stressful environment that contributes to employee burnout levels (Borg & Riding, 1991; Hornbaek, 2006; Kyriacou, 1987; Laughlin, 1984; Nilsson, 2010). Future research should therefore include investigations into the impact of job characteristics on the three constructs among middle managers who are perceived to have a unique role to play in supporting and implementing organisational strategies and programmes.

This study involved self-reporting measures that may have led to the common method variance that could influence the regression coefficients (Antonakis et al., 2010). The three constructs were measured using one psychometric instrument only. In addition, no objective variables, such as staff turnover or absenteeism, were included in the study.

The fact that the study was conducted in one government department makes it difficult to compare the study findings with other government departments, for example education and health and which would serve a greater population. One population only, namely, middle managers, was included in the study and therefore the results may not be applicable to other occupations in either this government department or in other departments.

However, despite the limitations in the empirical study that were identified, the findings of the study may still be used to develop an understanding of the relationship between sense of coherence, work engagement and burnout. In addition, these findings have the potential to initiate further studies into the salutogenic functioning and flourishing of middle managers in public service.

4.3 RECOMMENDATIONS FOR PRACTICAL USE AND FUTURE RESEARCH

Based on the findings, conclusions and limitations of the study, the following recommendations are summarised and discussed for the purposes of future research:

The results of the empirical study suggested that the managers in the sample were coping in their working environment; they were engaged in their work and they appeared to be experiencing moderate levels of burnout. These high levels of sense of coherence and work engagement and the moderate levels of burnout are indicators of flourishing employees. These results are contrary to numerous researchers who cite the various challenges involved in working in a public sector environment that result in burnout among employees (Borg & Riding, 1991; Hornbaek, 2006; Kyriacou, 1987; Laughlin, 1984; Nilsson, 2010). The implications of this study are therefore that, within the public sector working context, employees with a strong sense of coherence are engaged in their work and they demonstrate moderate levels of burnout that are indications of wellbeing or flourishing.

The focus on individual strengths and proactive behaviour relate to the experiences of positive states and wellbeing that hold positive outcomes for the individual as well as the organisation (Botha & Mostert, 2014; Govindji & Linley, 2007).

4.3.1 Recommendations regarding employee wellness programmes

The theory suggests that, in order to be successful, employee wellness programmes must include three levels, namely, primary, secondary and tertiary level intervention strategies (Rothmann, 2003).

On the primary level, the organisation should constantly monitor the wellbeing levels of its employees. Despite the fact that the results of this study revealed that the participants at the

time of the study were functioning positively and that their burnout levels were moderate, this may or may not change should the study be repeated. It is therefore recommended that the employees' internal strengths and functioning be periodically evaluated to assess the health of the individuals in conjunction with regular assessments of the health of the organisation. In addition, other interventions should include a greater awareness of and education on the impact of personal resources and strengths, such as sense of coherence and its impact on human functioning and wellbeing (Haley, Mostert & Els, 2013). Employee wellbeing programmes must also encourage employees to take responsibility for their own wellbeing by introducing tools and techniques to empower employees to manage and respond to stressors while remaining healthy. Other primary level strategies include organisational design and scientific job analyses; job-person matching; leadership development and coaching as well as improved management communication which would prevent or minimise the job stressors for individuals. Also recommended is the setting of behavioural indicators in line with the code of conduct principles for public service and the promotion of support structures by managers.

On a secondary level, interventions that empower employees with coping strategies to enable them to identify and manage environmental stressors and prevent burnout are recommended, for example, programmes to manage and prevent stress and fatigue. In addition, regular studies into the organisational culture should be conducted as these will reveal current management practices and encourage managers to identify and support employees who may be experiencing stress in the workplace.

Tertiary level interventions should include counselling, coaching and in-depth therapeutic programmes for employees who are displaying dysfunctional behaviour and who appear not to be coping with their job demands (Rothmann, 2003).

Based on the limitations, results and conclusion of this study, the following recommendations are made:

4.3.1.1 Sense of coherence

Despite the fact that the participants in this study demonstrated a strong sense of coherence, continuous awareness of and education on the internal transformation of the employee is recommended. Employee wellness programmes should include regular cognitive development interventions to change existing mind-sets and thus enhance and promote the employees' internal strengths and coping strategies, as this would enable them to deal with a complex environment while remaining healthy. Work tasks should therefore

be realistic, structured and manageable while employees should have the necessary skill, tools and equipment to execute their duties. According to Williams (2009), it is recommended that employees in the public sector possess skills that include flexibility, self-confidence, self-control and motivation in interacting with the public. The importance of assessing and promoting personal strengths should start from the time new recruits are met and also include developing and empowering existing employees.

4.3.1.2 Work engagement

Effective organisational design as well as valid and scientific job analyses will promote meaningful jobs and prevent either job under-load or job overload. Performance management must include clear and realistic performance indicators while regular, constructive feedback sessions must be held. The public service salary structure is fairly fixed and therefore alternatives such as emotional incentives or career mobility should be considered in order to reward consistently high levels of work engagement. Although the public service environment is rigid, managers must allow for flexibility, autonomy and co-creation in solving problems.

4.3.1.3 Burnout

It is hoped that the results of this study will be used to implement developmental, coaching/mentoring and retention programmes aimed at motivating and supporting employees and thereby creating healthy individuals and healthy organisations. Collegial support and healthy relationships between supervisors and employees will also prevent burnout. Employees must be encouraged to take regular breaks, for example, from their computers and also through annual leave.

In view of the fact that the findings of the study suggested that employees in the marital status group demonstrated greater levels of cynicism or depersonalisation on the burnout scale compared to the other groups, it is essential that employee wellness programmes include work-life integration programmes. Flexi-time policies, access to childcare, onsite health and wellness programmes, support for career development and wellbeing are all interventions that will promote work-life integration.

The government employee counselling programme must include the training of managers to ensure that they monitor employees and encourage them to make use of the counselling programmes as a vehicle with which to address or prevent burnout.

4.3.2 Future research

Based on the conclusions and limitations of the study, the following recommendations for future research are made:

There is an on-going need to address the wellbeing properties of public officials and their impact on the work performance as this may influence employee programmes aimed at addressing the poor performance and service delivery of government departments.

It is recommended that future studies in the public sector address the limitations of this study, for example, a larger sample may yield more significant results. Accordingly, the sample should be extended to include larger occupational groups as well as a comparison between the government departments of different sectors.

A longitudinal study in the future may provide information on the cause and effect factors such as perceptions on sense of coherence, work engagement and burnout may or may not change.

In order to obtain richer data and a greater understanding of the constructs than those yielded by this study, a qualitative research design could be combined with a quantitative research study.

4.4 INTEGRATION OF THE RESEARCH

The primary aim of the study was to investigate the relationship between sense of coherence, work engagement and burnout among middle managers in a government department. The study found that a relationship existed between the variables of sense of coherence, work engagement and burnout. It is hoped that the insights into this relationship may provide a greater understanding of the personal resources and internal strengths of government officials than may presently be the case.

The findings suggested that employees with a strong sense of coherence are most likely to possess the coping ability required to manage their stressors and to function effectively by being engaged in their work – indications of flourishing individuals. In practice, it is therefore important to consider the salutogenic properties, such as sense of coherence and work engagement, which enable employees to cope and to function optimally even if faced with challenges. This may result in positive outcomes such as increased work performance and improved service delivery (Fourie et al., 2007; May, 2006)

In conclusion, the findings of the study demonstrated the coping ability of middle managers

in the public sector organisation and how this relates to their wellbeing functioning, thereby indicating flourishing characteristics. The knowledge obtained of the relationship between sense of coherence, work engagement and burnout may be used to guide employee wellness programmes. The results suggested that employee wellbeing practices should promote the internal strengths of employees in order to help them to deal with the work environment, as it would have a positive impact on both the individual and the public sector at large.

4.5 CHAPTER SUMMARY

Chapter 4 discussed the conclusions drawn both from the literature review and the empirical study as well as the limitations of the study. The chapter also contained recommendations for practical use in relation to both employee wellness and future research.

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