SENSE OF COHERENCE AND EMPLOYEES' EXPERIENCE OF HELPING AND
RESTRAINING FACTORS IN THE WORKING ENVIRONMENT

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COMMENTS

The reader is reminded of the following:

- The references as well as the editorial style as prescribed by the *Publication Manual (5th edition)* of the American Psychological Association (APA) were followed in this mini-dissertation. This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University to use APA style in all scientific documents as from January 1999.

- The mini-dissertation is submitted in the form of a research article. The editorial style specified by the *South African Journal of Industrial Psychology* (which agrees largely with the APA style) is used, but the APA guidelines were followed in constructing tables.

- Each chapter of this mini-dissertation has its own reference list.
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# TABLE OF CONTENTS

| Comments | i  |
| Acknowledgements | ii |
| Table of contents | iii |
| List of tables | iv |
| Summary | v |
| Opsomming | vii |

## CHAPTER 1

1.1 Problem statement
1.2 Research objectives
1.2.1 General objective
1.2.2 Specific objectives
1.3 Research method
1.3.1 Literature review
1.3.2 Empirical study
1.3.2.1 Research design
1.2.3.3 Participants
1.3.2.3 Measuring Instruments
1.3.2.4 Statistical analysis
1.4 Research procedures
1.5 Chapter layout
1.6 Chapter summary
References

## CHAPTER 2: RESEARCH ARTICLE

## CHAPTER 3: CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

3.1 Conclusions
3.2 Limitations
3.3 Recommendations
3.3.1 Recommendations for the organisation
3.3.2 Recommendations for future research
References
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Demographic characteristics of the participants</td>
<td>26</td>
</tr>
<tr>
<td>Table 2</td>
<td>Demographic characteristics of the participants with high and low levels of sense of coherence</td>
<td>28</td>
</tr>
<tr>
<td>Table 3</td>
<td>Goodness-of-fit statistics of the hypothesised OLQ model</td>
<td>31</td>
</tr>
<tr>
<td>Table 4</td>
<td>Descriptive statistics and Cronbach’s Alpha coefficient of the OLQ instrument</td>
<td>33</td>
</tr>
<tr>
<td>Table 5</td>
<td>High sense of coherence: Helping and restraining factors</td>
<td>34</td>
</tr>
<tr>
<td>Table 6</td>
<td>Low sense of coherence: Helping and restraining factors</td>
<td>36</td>
</tr>
</tbody>
</table>
SUMMARY

Title: Sense of coherence and employees' experience of helping and restraining factors in the working environment.

Key terms: Sense of coherence, environmental stressors, organisational change, occupational stress, job satisfaction, coping, force field analysis, salutogenic model.

By developing strong, self-sustaining individuals in organisations, employees will need to withstand the forces of stressors and be able to cope with continuous changes within their working environment. To move the equilibrium level from the current to the desired condition, the field of forces must be altered – by adding driving forces and by removing restraining forces. An individual's sense of coherence may either alleviate or aggravate reactions to a stressor and moderate the impact of occupational stressors on the individual's affective outcomes. The objectives of this study were to validate the 13-item version of the Orientation to Life Questionnaire (OLQ) (Antonovsky, 1987) and to determine the experience of employees with high levels of sense of coherence regarding helping and restraining factors within the workplace (compared to that of those with a low sense of coherence).

A cross-sectional survey design was used. The total population ($N = 2,678$) of employees in a financial institution in Gauteng was used in this study. Random samples of groups with a strong ($n = 300$) and low ($n = 300$) sense of coherence were taken for purposes of the qualitative study. The OLQ (Antonovsky, 1987) and a biographical questionnaire were administered.

The scale showed acceptable reliability and construct validity. The study set out to determine the applicability of the theoretical model of sense of coherence to employees in a financial institution. Reliability analysis revealed that the three subscales of sense of coherence were sufficiently internally consistent. The reliability of the measuring instrument were assessed with the use of Cronbach alpha coefficients. Descriptive statistics (e.g. mean and standard deviations) were used to analyse the data.
By using the structural equation modelling approach, a one-dimensional factor structure for sense of coherence amongst employees in a financial institution emerged. The reliability analysis revealed that the alpha scores were acceptable. It can therefore be concluded that the 13-item version of the OLQ is a reliable and valid measuring instrument.

The results showed that although employee groups with high and low levels of sense of coherence are experiencing similar helping and restraining factors within their working environment, helping factors are being experienced with a higher frequency by groups with high levels of sense of coherence and restraining factors with a higher frequency by groups with low levels of sense of coherence.

Recommendations were made for future research.
OPSOMMING

**Titel:** Koherensiesin en werknemers se ervaring van helpende en beperkende faktore in die werksplek.

**Sleutel terme:** Koherensiesin, omgewingstressore, organisatoriese veranderinge, werkstres, werkstevredenheid, coping, kragveld-analise, salutogene model

Ten einde selfonderhoudende werknemers binne ’n organisasie te ontwikkel, moet die individue die kragte van stressore kan deurstaan en met voortdurende veranderinge binne die werksomgewing cope. Die ekwilibrium word verskuif van die huidige na die gewenste omstandighede deurdat kragvelde verander word deur die versterking van helpende kragte en die vermindering van beperkende kragte. ’n Individu se koherensiesin kan die reaksie op ’n stressor verlig of vererger en die uitwerking van werkverwante stressore op die individue se affektiwe uitkomste temper. Die doelstelling van hierdie studie was om die psigometriese eienskappe van die 13-item-weergawe van die Lewensorientasievraelys (LOV) (Antonovsky, 1987) te bepaal. ’n Verdere doelstelling was om ondersoek in te stel na werknemers met hoë vlakke van koherensiesin (in teenstelling met diegene met lae vlakke van koherensiesin) se ervaring van helpende en beperkende faktore in die werksplek.

’n Dwarssnee-opname-ontwerp is gebruik. Die totale populasie \(N = 2\,678\) van werknemers in ’n finansiële instelling in Gauteng is geneem. Vir die kwalitatiewe studie is ewekansige steekproeewes met hoë vlakke \(n = 300\) en lae vlakke \(n = 300\) van koherensiesin geneem. Die LOV (Antonovsky, 1987) en ’n biografiese vraelys is afgeneem. Die betroubaarheid van die meetinstrument is bepaal deur gebruik te maak van Cronbach alfakoëffisiënte. Beskrywende statistiek (rekenkundige gemiddeldes en standaardafwykings) is gebruik om die data te ontleed.

Uit die benutting van strukturele vergelykingsmodellering benadering het ’n een-dimensionele faktorstruktuur vir koherensiesin by werknemers in ’n finansiële instelling na vore gekom. Die resultate vir die LOV toon dat die meetinstrument betroubaar en geldig is.

Die resultate toon dat individue met hoë vlakke en diegene met lae vlakke van koherensiesin soortgelyke helpende en beperkende kragte in die werkomgewing ervaar. Individue met hoë
vlakke van koherensiesin ervaar egter 'n groter frekwensie van helpende faktore en 'n kleiner frekwensie van beperkende faktore in vergelyking met individue met lae vlakke van koherensiesin wat groter frekwensies van beperkende faktore ervaar.

Aanbevelings vir toekomstige navorsing is aan die hand gedoen.
CHAPTER 1

INTRODUCTION

This mini-dissertation deals with sense of coherence and determining helping and restraining factors experienced by individuals with different levels of sense of coherence, in order to cope with the continuously changing environment and eventually stabilise at an equilibrium point.

In Chapter 1 the motivation of the research is discussed in terms of the problem statement and the aim of the research. Thereafter the research method and chapter layout are discussed.

1.1 PROBLEM STATEMENT

Modern businesses are highly competitive and demanding. Companies, management and employees are under constant pressure to achieve high targets, and solutions are expected to be quicker, smarter and cheaper (Brunt, 2000). Adverse career circumstances that careerists could encounter according to Birchall and Lyons (1995), Bridges (1995) and Oginska-Bulik (2005) include fewer stable attachments in the workplace; increased workload, less explicit career paths, acute uncertainty about future and alternative working arrangements; challenges to individuals’ sense of security and identity, multiple roles, high stress levels and balancing work and non-work demands.

According to Grobler, Warnich, Carrell, Elbert, and Hatfield (2002), there is no doubt that dramatic changes in both the external and internal environment of companies during the past few decades in South Africa have resulted in employees being faced with new and important challenges. Externally, the pace of economic change continues to accelerate, and internally there is a growing resistance from workers to the role of authority, and a desire on their part for a more meaningful participation in the decision-making process.

If one considers how the psychological contract has changed in the private sector from the encouragement of loyalty in exchange for a life-long job, to one in which experience, remuneration and change is promise given in exchange for innovation, it is apparent that values have changed. With the increase in the number of e-businesses, dotcoms and large-
scale software implementations undertaken by many staid organisation of the past, it is understandable that change is underwritten into every psychological contract formed today (Grobler et al., 2002).

The question most frequently asked in the literature regarding employee's exposure to this demanding and changing environment is what the actual price of success in today's fast-paced changing global working environment is (Oginska-Bulik, 2005). As human beings we are susceptible to the many influences and pressures in our society that arise because of change, technological progress, political conflict, workplace stressors as well as non-work stressors. Change is both a daunting and exciting possibility. It is exciting if one is able to comprehend the change, interpret it through a meaningful frame of reference and believe it is manageable (Antonovsky, 1987). However, if one fears the change and feels ill prepared, it becomes a daunting concept. The result is that if change is perceived as a major stressor, the individual may struggle to process information required to cope with the change and be left in a state of distress. Researchers show a great deal of interest in the topic of stress, especially in the wake of pervasive changes in organisations (Worrall & Cooper, 1995).

In the majority of stress theories and models, occupational stress is described as a series of factors that have their beginnings in one's actual surroundings and conclude with the individual's reactions. The individual forms a conception of the objective situation through his or her subjective interpretation of the situation (Beehr, 2000). According to Callan (1993), an event becomes stressful when it is appraised by an individual as a threat to that individual's well-being.

Stress in the workplace is a major problem for individuals, organisations and societies. Links between a stressful work environment and health are now quite well established. Experienced stress in turn brings about adverse effects primarily on health, both psychical and mental (Brunt, 2000; Goleman, 1995; Oginska-Bulik, 2005; Semmer, 1996; Sullivan, 1995). Employees also suffer from other consequences resulting from stress in the workplace such as lower self-esteem and motivation, reduced performance and productivity, decreased job satisfaction, a decline in organisational commitment and loyalty, and an increase in accident and turnover (Cascio, 1989, Hobson, Delunas, & Kesic, 2001; Oginska-Bulik, 2005, Sullivan, 1995). The collective effect of this could be disastrous for all organisations.
The literature mentions many possible buffers that could aid the employee against occupational stress (Cooper, Dewe, & O'Driscoll, 2001). In recent years, it has become increasingly clear that the tendency to perceive events and circumstances as stressful, ways of coping with them, and how failure in coping is dealt with, depend in part on characteristics of the person. These characteristics typically involve beliefs about the world and one's relationship with it, especially one's possibilities of dealing with it (Semmer, 1996). Sense of coherence is a broad-band resource (Antonovsky, 1987; Hobfoll, 2001) which is positively associated with coping with change (Fouché & Rothmann, 2001).

Antonovsky's primary contribution to the area of stress and coping has been to bring about a conceptual shift towards what he terms, salutogenic thinking (Antonovsky, 1987; Strümpfer, 1995). Antonovsky's (1987) perspective entails a reorientation towards why it is that, despite being exposed to constant stressors, some individuals maintain their health while others similarly situated succumb to health breakdowns. As an individual progress through life, exposure to certain challenges and stressors will either result in the individual being able to handle the situation or being overcome by the challenge. The result of emerging triumphantly through the challenge is the formation of what Antonovsky refers to as generalised resistance resources (GRRs) (Antonovsky, 1987). The primary function of GRRs is that they enable one to make sense of the barrage of stimuli which constantly assail us, and they help us to interpret the ways our responses are perceived by others. GRRs function at the point of system interaction, is organising and integrating energy exchanges so that phenomena are perceived as patterned rather that chaotic, meaningful rather than nonsensical, and lawful rather than randomly determined (Sullivan, 1993).

Through repeated experiences of such sense-making (being able to apply the general resistant resources in a challenging time of life), a person develops a sense of coherence, which facilitates successful coping with the innumerable, complex stressors confronting individuals in their course of living (Strümpfer, 1990). Antonovsky (1987) defined sense of coherence as a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic, feeling of confidence that one's internal and external environment are predictable and that there is high probability that things will work out well as can be reasonably expected. Sense of coherence can thus be viewed as a stable dispositional orientation. The definition of sense of coherence includes three dimensions that represent the concept, namely comprehensibility, manageability and meaningfulness.
The three constituents of sense of coherence are conceptually similar to those of Kobasa's hardiness (Antonovsky 1987; Kobasa, 1979; Sullivan 1993). Kobasa (1979) hypothesised that people who believe that they can control events, who are deeply committed to the people and activities in which they are involved, and who accept change as a challenge tend to remain healthier under stress than those who believe that they are powerless to shape events, that life's activities and social ties lack importance, and who experience change as threatening. Further important elements of sense of coherence are self-esteem (Kalimo & Vuori, 1990; Pallant & Lae, 2002), self-efficacy (Bandura, 1989) and internal locus of control (Spector, 1988).

A sense of coherence is a world view in which people expect that things will work out, that life is understandable, manageable and meaningful and indicates an individual’s general orientation to life. In particular, sense of coherence is thought to mirror the quality of one’s life in the form of internal resources, and precedes an adaptive coping with difficulty and uncertainty (Antonovsky, 1979; Pallant & Lae, 2002). Coping is the way individuals deal with or adapt to a threat (Monat & Lazarus, 1991).

Sense of coherence as a construct has been well validated in terms of equipping an individual to be more resilient to stress and hence avoid the ill effect stress may result in (Strümpfer & Wissing, 1998). Studies conducted found a statistical significant correlation between sense of coherence and job satisfaction (Coetzee & Rothmann, 1999; Strümpfer, 1997; Strümpfer, Danana, Gouws, & Viviers, 1998) and work engagement (Rothmann, Steyn, & Mostert, 2005). Sense of coherence was negatively related to burnout (Basson & Rothmann, 2002; Naudé & Rothmann, 2000; Rothmann, Malan, & Rothmann, 2001; Schaufeli & Bakker, 2004; Wissing, De Waal, & De Beer, 1992).

An individual's sense of coherence may either alleviate or aggravate reactions to a stressor and might moderate the impact of occupational stressors on the individual's affective outcomes. This means that the impact of stressful experiences would vary for individuals between high and low-scoring on sense of coherence (Bolger & Zuckerman, 1995; Cooper et al., 2001). Employees who have a strong sense of coherence perceive that they are able to cope with job stress, which makes it possible to experience eustress and work engagement (Nelson & Simmons, 2003), presumably because stimuli from the environment are perceived
as making cognitive sense (comprehensibility), as being under control of others (manageable), and as being motivationally relevant and meaningful (meaningfulness).

Employees who have a low sense of coherence probably find it difficult to structure their world to be understandable, orderly and consistent. They tend to experience life events as unmanageable and perceive that they lack the resources to meet the demands, and they might feel that life does not make sense on an emotional level. It is understandable that they would perceive situations as stressful (Antonovsky, 1987, 1991). Experiences that are characterised by unpredictability, uncontrollability and uncertainty will lead to a low sense of coherence which is likely to result in poor tension management and an inability to mobilize adequate resources, culminating in health breakdown (Antonovsky, 1987).

According to Cooper et al. (2001), work-related well-being does not solely reside within the environment of the individual but is the result of a dynamic transaction between the constituting elements of the environment and the individual’s cognitive processes.

Kurt Lewin (1947) stated that individuals were seen to behave differently according to the way in which tensions between perceptions of the self and of the environment were worked through. Of crucial importance is Lewin’s classic formula of a person’s relationship to his or her environment. \( B = f(P \times E) \), where behaviour \( B \) equates to the function \( f \) of the person \( P \) multiplied by \( \times \) his or her environment \( E \). Lewin (1947) viewed the social environment as a dynamic field which impacted on human consciousness in an interactive manner. The whole psychological field or ‘living space’ within which people acted had to be viewed in order to understand behaviour. Individuals participate in a series of living spaces (such as the family, work, school and church), and these were constructed under the influence of various force vectors (Cady & Dannemiller, 2005).

Kurt Lewin (1947) thought of motives as goal-directed forces. He also looked at the power of underlying forces (needs) to determine behaviour and hence expressed a preference for psychological as opposed to physical or physiological descriptions of the field (Pareek, Scherer, & Brinkerhoff, 2005). According to the force-field analysis (Lewin, 1947), a present situation is not a static pattern but a dynamic balance of forces working in opposite directions. The present state of things (the current condition) is a quasi-stationary equilibrium presenting a resultant in a field of opposing forces. A desired future state of affairs (the
desired conditions) can only be achieved by dislodging the current equilibrium, moving it to the desired state and stabilising the equilibrium at that point. To move the equilibrium level from the current to the desired condition, the field of forces need to be altered – by adding driving forces and by removing restraining forces (French & Bell, 1999).

Force field analysis can be defined as a device for understanding a problematic situation and planning corrective actions. In the literature it is stated that the impact of stressful changing events varies between individuals with high and low levels of sense of coherence (Bolger & Zuckerman, 1995; Cooper et al., 2001) due to their perception of the comprehensibility, manageability and meaningfulness of stimuli from the environment. Individuals with different levels of sense of coherence might then experience different helping and restraining factors within their working environment.

Individuals with high levels of sense of coherence perceive stimuli from their environment as making cognitive sense, being under control of themselves or others and as being meaningful. It should be possible then for individuals with high levels of sense of coherence to understand problematic situations and successfully alter the driving forces to exceed the restraining forces in order to stabilise at the desired equilibrium point.

Individuals with low levels of sense of coherence who find it more difficult to make cognitive sense of environmental stimuli, therefore manage and motivate the meaningfulness, might find it more difficult to alter driving forces in order to exceed restraining forces and therefore experience more restraining forces, and not be successful in stabilising at the given equilibrium point, nor being able to cope with the changes in the environment.

In any situation there are driving forces that push for change as well as restraining forces that act against change (Lewin, 1947). In order for any change to be successful, the driving forces must exceed the restraining forces. Should it be possible to identify the restraining forces experienced by employees with low levels of coherence, helping factors could be added in order to ensure that major changes and stressful situations are managed more successfully.

The following research questions arise on the basis of the description of the research problem:
• What are the construct validity and reliability of the 13-item version of the Orientation to Life Questionnaire?
• How do employees with high levels of sense of coherence experience helping and restraining factors in the work environment?
• How do employees with low levels of sense of coherence experience helping and restraining factors in the working environment?

1.2 RESEARCH OBJECTIVES

The research objectives can be divided into a general objective and specific objectives.

1.2.1 General objective

With reference to the formulation of the problem above, the general objective of this research is to validate the 13-item version of the Orientation to Life Questionnaire (Antonovsky, 1987) and to determine the helping factors to be added and restraining factors to be removed by individuals with high levels of sense of coherence (compared to those with a low sense of coherence) in order to cope with the continuously changing environment in order to stabilise at an equilibrium point.

1.2.2 Specific objectives

• To assess the construct validity and reliability of the 13-item version of the Orientation to Life Questionnaire (Antonovsky, 1987).
• To investigate how employees with high levels of sense of coherence experience helping and restraining factors in the working environment.
• To investigate how employees with low levels of sense of coherence experience helping and restraining factors in the work environment.
1.3 RESEARCH METHOD

The research method includes a literature review and empirical study.

1.3.1 Literature review

The literature review will be conducted by making use of databases such as ERIC, Academic Search Premier, and EBSCOHost. Relevant books and dissertations will also form part of this literature review.

The literature review focused on previous research on environmental stressors, organisational change, occupational and psychological stress, coping mechanisms, sense of coherence, and the force field analysis method. An overview is given of the conceptualisation of these constructs in literature.

1.3.2 Empirical study

The empirical study entailed that the specifically stated objectives could be achieved as follows:

1.3.2.1 Research design

A cross-sectional survey design will be utilised to obtain part of the research objectives, whereby a sample will be drawn from a population all at once and the focus will be on describing the characteristics of that population. This design is ideal to assess interrelationships among variables within a population and ideally suited to the descriptive and predictive functions associated with correlation research (Kerlinger & Lee, 2000).

The method of qualitative research will also be used to reach the research objectives. The specific phenomenological method of content analysis will be utilised. Qualitative research is naturalistic, participatory, and interpretive and emanates from phenomenological perspectives and emphasizes internal, mental events as the basic unit of existence (Kerlinger & Lee, 2000).
1.3.2.2 Participants

A sample ($N = 2\,678$) will be taken from a financial institution in the Gauteng Province. For purposes of the qualitative survey, smaller samples will be taken from the larger survey where a sample ($n = 300$) will be taken from groups with high levels of sense of coherence, and a sample ($n = 300$) will be taken from groups with low levels of sense of coherence.

1.3.2.3 Measuring instruments

The Orientation to Life Questionnaire (OLQ) (Antonovsky, 1987) and a biographical questionnaire will be used to reach the objectives set for this study.

The *Orientation to Life Questionnaire* (OLQ) (Antonovsky, 1987). This is a 13-item self-report questionnaire used to measure the construct of sense of coherence. This scale contains four meaningfulness, five comprehensibility, and four manageability items. The items are scored on a seven-point semantic differential scale with two anchoring phrases varying from $1$ (very often) to $7$ (very seldom or never). In a study conducted by Antonovsky (1987), Kalimo and Vuori (1990) and Coetzee and Rothmann (1999) high internal consistency was reported (Cronbach’s alfa between 0.84 to 0.93) and test-retest reliability was reported by Antonovsky (1993) as ranging between 0.41 to 0.97.

The impact of stressful experiences vary for individuals with high and low levels of sense of coherence (Bolger & Zuckerman, 1995; Cooper et al., 2001), since sense of coherence may either alleviate or aggravate reactions to a stressor. According to the force field analysis (Lewin, 1947), which is being utilised as a device for understanding problematic situations, a situation is not a static pattern but a dynamic balance of forces working in opposite directions, and for any change to be successful the driving forces must exceed the restraining forces. It might be then that individuals with different levels of sense of coherence might experience different helping and restraining factors as well as a difference in the frequency of these experienced forces within their working environment.
1.3.2.4 Statistical analysis

The statistical analysis will be carried out by means of the SPSS programme (SSPS Inc., 2003) and the Amos programme (Arbuckle, 2003). The SPSS program is used to carry out statistical analysis regarding reliability and validity of the measuring instrument, descriptive statistics, and correlation coefficients (SPSS Inc., 2003). The reliability of the measuring instrument are assessed with the use of Cronbach alpha coefficients (Clark & Watson, 1995). Coefficient alpha contains important information regarding the proportion of variance of the item of a scale in terms of the total variance explained by the particular scale.

Descriptive statistics (e.g. means and standard deviation) are used to analyse the data. Structural equation modelling (SEM), as implemented in AMOS (Arbuckle, 1997), will be used to test the factorial model for the OLQ, using the maximum likelihood method. Hypothesised relationships will be tested empirically for goodness of fit with sample data (Byrne, 2001). Among the fit indices produced by the AMOS programme is the $\chi^2$ statistics which is the test of absolute fit of the model. However, the $\chi^2$ value is sensitive to sample size. Therefore, additional goodness-of-fit indices will be used in this study such as the $\chi^2$/degrees of freedom ration (CMIN/df) (Wheaton, Muthen, Alwin, & Summers, 1977), the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit index (AGFI), the Normed Fit Index (NFI), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root Means Square Error of Approximation (RMSEA) were also used in this study.

1.4 RESEARCH PROCEDURE

The measuring battery will be compiled. A letter requesting participation and motivation of the research will be included. Ethical aspects regarding the research will also be communicated to the participants in a formal letter. The most important ethical issue to be addressed is confidentiality, and each participant will be afforded the opportunity to complete the two different questionnaires anonymously.

The test battery will be administered on an electronic website on the personal computers of the employees in the privacy of their individual offices on suitable dates. The results will be analyzed and feedback will be given to all individuals who so requested.
5. CHAPTER LAYOUT

The chapters in the mini-dissertation will be presented as follows:

Chapter 1: Introduction
Chapter 2: Research article
Chapter 3: Conclusions, limitations and recommendations.

6. CHAPTER SUMMARY

Chapter 1 focused on the problem statement, objectives and research method in this study.

Chapter 2 focuses on the research article.
REFERENCES


SENSE OF COHERENCE AND EMPLOYEES' EXPERIENCE OF HELPING AND RESTRAINING FACTORS IN THE WORKING ENVIRONMENT

ABSTRACT
The objectives of this study were to validate the 13-item version of the Orientation to Life Questionnaire (OLQ) (Antonovsky, 1987) and to determine the experience of helping and restraining factors within the workplace of the employees with high levels of sense of coherence (compared to those with a low sense of coherence). A cross-sectional survey design was used. The total population \((N = 2678)\) of employees in a financial institution in Gauteng was used in this study. Random samples of groups with a strong \((n = 300)\) and low \((n = 300)\) sense of coherence were taken for the purposes of the qualitative study. The OLQ (Antonovsky, 1987) was administered. The scale showed acceptable reliability and construct validity. The results showed that although individuals with high levels and those with low levels of sense of coherence experience similar helping and restraining factors in the workplace, a higher frequency of helping factors and a lower frequency of restraining factors are being experienced by individuals with a strong sense of coherence compared to the higher frequency of restraining factors experienced by individuals with a weak sense of coherence.

OPSOMMING
Die doelwitte van hierdie studie was om die psigometriese eienskappe van die 13-item weergawe van die Lewensorientasievraelys (LOV) (Antonovsky, 1987) te bepaal. ‘n Verdere doelstelling was om ondersoek in te stel na die ervaring van helpende en beperkende faktore in die werkplek van werknemers met hoë vlakke van koherensiesin (in teenstelling met diegene met ‘n lae vlak van koherensiesin). ‘n Dwarssnee-onname-ontwerp is gebruik. Die totale populasie \((N = 2678)\) van werknemers in ‘n finansiële instelling in Gauteng is geneem. Vir die kwalitatiewe studie is ewekansige steekproewe met hoë vlakke \((n = 300)\) en lae vlakke \((n = 300)\) van koherensiesin geneem. Die LOV (Antonovsky, 1987) is afgeneem. Die skaal het aanvaarbare betroubaarheid en konstruiskongedigheid getoon. Die resultate toon dat individue met hoë vlakke en diegene met lae vlakke van koherensiesin soortgelyke helpende en beperkende krags in die werkomgewing ervaar. Individue met ‘n sterk koherensiesin het egter ‘n groter frekwensie van helpende faktore en ‘n kleiner frekwensie van beperkende faktore ervaar in vergelyking met individue met ‘n swak koherensiesin wat groter frekwensies van beperkende faktore ervaar.
Very few people in our modern world are privileged enough to experience real inner peace and fulfilment. Modern businesses are highly competitive and demanding. According to Grobler, Warnich, Carrell, Elbert, and Hatfield (2002), there is no doubt that dramatic changes, in both the external and internal environment of companies during the past few decades in South Africa have resulted in employees being faced with new and important challenges.

If one considers how the psychological contract has changed in the private sector from the encouragement of loyalty in exchange for a life-long job, to one in which experience, remuneration and change is promises given in exchange for innovation, it is apparent that values have changed. With the increase in the number of e-businesses, dotcoms and large-scale software implementations undertaken by many staid organisation of the past, it is understandable that change is underwritten into every psychological contract formed today (Grobler et al., 2002).

The question most frequently asked in the literature regarding employee’s exposure to this demanding and changing environment is what the actual price of success in today’s fast-paced changing global working environment is (Oginska-Bulik, 2005). Change is both a daunting and exciting possibility. It is exciting if one is able to comprehend the change, interpret it through a meaningful frame of reference and believe it is manageable (Antonovsky, 1987). However, if one fears the change and feels ill prepared, it becomes a daunting concept. The result is that if change is perceived as a major stressor, the individual may struggle to process information required to cope with the change and be left in a state of distress.

The literature mentions many possible buffers that could aid the employee against occupational stress (Cooper, Dewe, & O'Driscoll, 2001). In recent years, it has become increasingly clear that the tendency to perceive events and circumstances as stressful, ways of coping with them, and how failure in coping is dealt with, depend in part on characteristics of the person. Sense of coherence is a broad-band resource (Antonovsky, 1987; Hobfoll, 2001, Semmer, 1996) which is positively associated with coping with change (Antonovsky, 1991; Fouche & Rothmann, 2001). A positive correlation between sense of coherence and coping with organisational change has been found (Ludik, 1996). An individual’s sense of coherence may either alleviate or aggravate reactions to a stressor and moderate the impact of
occupational stressors on the individual's affective outcomes. This means that the impact of stressful experiences would vary for individuals between high and low-scoring on sense of coherence (Bolger & Zuckerman, 1995; Cooper et al., 2001) due to differences in their perception of the comprehensibility, manageability and meaningfulness of stimuli from the environment.

According to Cooper et al. (2001), work-related well-being does not solely reside within the environment or the individual but is the result of a dynamic transaction between the constituting elements of the environment and the individual’s cognitive processes. Kurt Lewin (1947) stated that individuals were seen to behave differently according to the way in which tension between perceptions of the self and of the environment were worked through. Lewin sought to investigate the conditions and forces which bring about change or resist change. Alban and Scherer (2005) proposed that the force field analysis (Lewin, 1947) will provide the individual with an opportunity to create an action plan for change in order to identify the forces that may work for and against change initiatives.

Force field analysis can be defined as a device for understanding a problematic situation and planning corrective actions. According to the force-field analysis (Lewin, 1947), a present situation is not a static pattern but a dynamic balance of forces working in opposite directions. The present state of things (the current condition) is a quasi-stationary equilibrium presenting a resultant in a field of opposing forces. A desired future state of affairs (the desired conditions) can only be achieved by dislodging the current equilibrium, moving it to the desired state, and stabilising the equilibrium at that point. To move the equilibrium level from the current to the desired condition, the field of forces must be altered – by adding driving forces and by removing restraining forces (French & Bell, 1999).

Individuals with different levels of sense of coherence might experience different helping and restraining factors within their working environment. Individuals with high levels of sense of coherence perceive stimuli from their environment as making cognitive sense, being under control of themselves or others and as being meaningful. It should be possible for individuals with high levels of sense of coherence to understand problematic situations and successfully alter the driving forces to exceed the restraining forces in order to eventually stabilise at the desired equilibrium point.
Individuals with low levels of sense of coherence who find it more difficult to make cognitive sense of environmental stimuli, therefore manage and motivate the meaningfulness, might find it more difficult to alter driving forces in order to exceed restraining forces and therefore experience more restraining forces, and will not be successful in stabilising at the given equilibrium point, nor be able to cope with the changes in the environment.

Employees need a very specific mindset to adapt to the demands of the workplace. Job specific skills have to be complemented by emotional intelligence, a healthy lifestyle and a soul connection. In order to be marketable, employees have to be willing to accept change as part of their career and life in general. By developing strong, self-sustaining individuals in organisations, employees will need to withstand the forces of stressors in both their personal and work life and be able to cope with continuous changes within their workplace (Greeff, 2002).

**Occupational stress**

According to Spielberger, Vagg, and Wasala (2003), employees evaluate their work environment in terms of the severity and frequency of occurrence of specific job demands and pressure and the level of support provided by supervisors, co-workers and organisational policies and procedures. In the majority of stress theories and models, occupational stress is described as a series of factors that have their beginnings in one’s actual surroundings and conclude with the individual’s reactions. The individual forms a conception of the objective situation through his or her subjective interpretation of the situation (Beehr, 2000). According to Callan (1993), an event becomes stressful when it is appraised by an individual as a threat to that individual’s well-being.

Stress in the workplace is a major problem for individuals, organisations and societies. Links between a stressful work environment and health are now quite well established. Experienced stress in turn brings about adverse effects primarily on health, both psychical and mental (Brunt, 2000; Goleman, 1995; Oginska-Bulik, 2005; Semmer, 1996; Sullivan, 1995). Research found that employees suffer consequences resulting from stress in the workplace such as lower self-esteem, disruption in intimate life and many hours of professional development (Oginska-Bulik, 2005). Further research identifies high stress levels as being associated with reduced performance and productivity, decreased job satisfaction, a decline in
organisational commitment and loyalty and an increase in turnover (Hobson, Delunas & Kesic, 2001; Sullivan, 1995). Cascio (1989) adds to this list the direct costs of low morale, motivation, communication breakdowns and a negative effect on the quality of work relations. The collective effect of this could be disastrous for all organisations.

**Sense of coherence**

Antonovsky (1987) defined sense of coherence as a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic, feeling of confidence that one’s internal and external environment are predictable and that there is high probability that things will work out well as can be reasonably expected. Sense of coherence can thus be viewed as a stable dispositional orientation. The sense of coherence is a dynamic aspect of the personality which is formed throughout childhood and adolescence and can be viewed as a stable dispositional orientation. The sense of coherence is believed to be a construct that is universally meaningful, cutting across lines of gender, social class, region and culture (Strümpfer, 1990).

The definition of sense of coherence includes three dimensions that represent the concept, namely comprehensibility, manageability and meaningfulness (Antonovsky, 1987):

- **Comprehensibility** refers to the extent to which one perceives stimuli from the external and internal environment as information that is ordered, structured and consistent. The stimuli are perceived as comprehensible and make sense on a cognitive level (cognitive component);
- **Manageability** refers to the extent to which individuals experience events in life as situations that are endurable or manageable, or even as a new challenge (instrumental component);
- **Meaningfulness** refers to the extent to which one feels that life is making sense on an emotional and not simply a cognitive level (motivational component).

The first dimension refers to an internal locus of control. This means a sense of self-reliance in the face of challenges (Paulhus, 1983; Rotter, 1966). The second mirrors self-confidence, in the form of sense of efficacy and potency to deal with the demanding
encounters, while the third echoes motivation 'to go on' and basic trust placed in the course of life events (Antonovsky, 1987).

Sense of meaningfulness is the most central component of sense of coherence because of its motivational element. It can be seen, for example, in cases where a person is high on both the comprehensibility and manageability components (the individual knows the rules of the game and believes that the requisite resources are at his/her disposal to develop successfully, but if the individual's sense of meaningfulness is low, understanding tends to lose ground and the command of resources is lost) (Antonovsky, 1987).

Antonovsky (1987, 1993) and Sullivan (1993) state that although the components of meaningfulness, comprehensibility and manageability are conceptually distinguishable from one another, they are interrelated as facets of the sense of coherence and should be used uni-dimensionally, indicating a global concept. Although there may be individual variations on the configuration of these components and their relative contribution to the overall sense of coherence, it is not anticipated that the three components will function independently so as to reflect three distinct personality variables.

A sense of coherence is a world view in which people expect that things will work out, that life is understandable, manageable and meaningful and indicates an individual's general orientation to life. In particular, sense of coherence is thought to mirror the quality of one's life in the form of internal resources, and precedes an adaptive coping with difficulty and uncertainty (Antonovsky, 1979; Pallant & Lae, 2002). A part of sense of coherence appears to refer to an active and dynamic disposition which encourages adaptive coping (Pallant & Lae, 2002). Kleinke (1991, p.3) defined coping as the effort individuals make to manage situations that have been appraised as potentially harmful or stressful. Coping is the way individuals, physically and mentally, deal with or adapt to a threat (Monat & Lazarus, 1991).

The three constituents of sense of coherence are conceptually similar to those of Kobasa's hardiness (Antonovsky 1987, Kobasa, 1979, Sullivan 1993). Kobasa (1979) hypothesised that people who believe that they can control events, who are deeply committed to the people and activities in which they are involved, and who accept change as a challenge tend to remain healthier under stress than those who believe that they are powerless to shape events, that
life's activities and social ties lack importance, and who experience change as threatening. Further important elements of sense of coherence is self-esteem (Kalimo & Vuori, 1990; Pallant & Lae, 2002), self-efficacy (Bandura, 1989), and internal locus of control (Spector, 1988).

Studies conducted found a statistical significant correlation between sense of coherence and job satisfaction (Coetzee & Rothmann, 1999; Strümpfer, 1997; Strümpfer, Danana, Gouws & Viviers, 1998) and work engagement (Nelson & Simmons, 2003, Rothmann, Steyn, & Mostert, 2005). Sense of coherence was negatively related to burnout (Basson & Rothmann, 2002; Naudé & Rothmann, 2000; Rothmann, Malan, & Rothmann, 2001; Schaufeli & Bakker, 2004; Wissing, De Waal, & De Beer, 1992) and measures of negative affectivity, such as anxiety and neuroticism (Flannery & Flannery, 1990; Frenz, Carey & Jorgensen, 1993; Gibson & Cook, 1996), depression and job stress (Feldt, 1997).

According to Antonovsky (1987), a person with a strong sense of coherence selects the particular coping strategy that seems most appropriate to deal with the stressor he/she is being confronted with. Redelinghuys and Rothmann (2005) found a correlation between a strong sense of coherence and problem-focused, active coping strategies. Individuals with a high level of sense of coherence express less affective impairment in their coping while those with a low level of sense of coherence use avoidant coping. A strong sense of coherence is also related to competence and life satisfaction (Kalimo & Vuori, 1990), general well-being (Feldt, 1997), and emotional stability (Mlonzi & Strümpfer, 1998).

Individuals with a strong sense of coherence will be able to understand the nature and dimensions of an acute stressor and will be able to cope by applying resources within that individual's or other individual's control rather than becoming helpless. Such an orientation positions the individual to optimally handle stress and even turn it into something positive (Antonovsky, 1993; Strümpfer, 1990).

Employees who have low levels of sense of coherence find it difficult to structure their world to be understandable, orderly and consistent. They tend to experience life events as unmanageable and perceive that they lack the resources to meet the demands, and they might feel that life does not make sense at an emotional level. Experiences that are characterised by unpredictability, uncontrollability and uncertainty will lead to a low sense of coherence.
which is likely to result in poor tension management and an inability to mobilise adequate
resources, culminating in health breakdown (Antonovsky, 1987; Strümpfer, 1990).

**Force field analysis**

Kurt Lewin (1947) formulated a person’s relationship to his or her environment as $B = f (P \times E)$, where behaviour (B) equates to the function (f) of the person (P) multiplied by (x) his or her environment (E). His formula implies that individuals are not isolated entities behaving in a vacuum; rather, they interact with and are shaped by what is going on around them. Attempting to change a person’s attitudes or behaviour in isolation from the environment may limit long-term success.

Lewin (1947) viewed the social environment as a dynamic field which impacted in an interactive way on human consciousness. The whole psychological field, or ‘living space’, within which people acted, had to be viewed in order to understand behaviour. Individuals participate in a series of living spaces (such as the family, work, school and church), and these were constructed under the influence of various force vectors (Cady & Dannemiller, 2005).

Organisations were defined by Lewin (1947) as systems in which the present situation was not a static pattern but a dynamic balance of forces working in opposite directions. In any situation there are driving forces that push for change as well as restraining forces that act against change. In order for any change to be successful, the driving forces must exceed the restraining forces. He thought of motives as goal-directed forces (Lewin, 1951). He also assessed the power of underlying forces (needs) to determine behaviour and hence expressed a preference for psychological as opposed to physical or physiological descriptions of the field (Pareek, Scherer, & Brinkerhoff, 2005).

It seems that the critical skills of the 21st century employee will not be about winning and coming out on top, but about having the capacity to change before the case for change becomes desperately obvious (Hamel, 2004). Working from the perspective that work-related well-being is the result of a dynamic transaction between the constituting elements of the environment and the individual’s cognitive processes, the objective of this research is therefore to determine the helping factors to be added and restraining factors to be removed
by individuals with high levels of sense of coherence (compared to those with a low sense of coherence) in order to cope with the continuously changing environment in order to eventually stabilise at an equilibrium point.

A person’s sense of coherence requires certain inherent prerequisites for coping successfully with change, which are represented by the concept of comprehensibility, manageability and meaningfulness (Antonovsky, 1987). Employees with low levels of sense of coherence who find it difficult to structure their world to be understandable, orderly and consistent might find communication and feedback from management and colleagues to be helping factors in order to structure the stimuli deriving from their internal and external environment. A lack of resources and stringent job demands might be experienced as restraining factors by these groups with low levels of coherence, since they will not be able to meet the demands posed by the stimuli. A further restraining factor for groups with low levels of sense of coherence could also include them not being part of the decision-making process as they could feel that the demands derived from these decisions are not worthy of being committed to.

METHOD

Research design

A cross-sectional survey design was utilised to obtain the study objectives whereby a sample is drawn from a population all at once and the focus is on describing the characteristics of that population. This design is ideal to assess interrelationships among variables within a population and ideally suited to the descriptive and predictive functions associated with correlation research. It can also be used to assess changes in attitudes or behaviour over time (Shaughnessy & Zechmeister, 1997).

The method of qualitative research was used to reach the study objectives. The specific phenomenological method of content analysis was utilised. Qualitative research is naturalistic, participatory and interpretive and emanates from the phenomenological perspectives and emphasises internal, mental events as the basic unit of existence (Kerlinger & Lee, 2000).
Participants

The participants were employees from a financial institution in the Gauteng Province \((N = 2678)\). Participation was voluntary and the measuring battery was administered and completed electronically on a website on the employees' personal computers. The characteristics of the participants are shown in Table 1.

Random samples of groups with a strong \((n = 300)\) and low \((n = 300)\) sense of coherence were taken for purposes of the qualitative study.
<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
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<td>1074</td>
<td>40,1</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>1604</td>
<td>59,9</td>
</tr>
<tr>
<td>Marital status</td>
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<td>1050</td>
<td>39,2</td>
</tr>
<tr>
<td></td>
<td>Engaged</td>
<td>54</td>
<td>2,0</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>1395</td>
<td>52,1</td>
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<tr>
<td></td>
<td>Divorced</td>
<td>145</td>
<td>5,4</td>
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<tr>
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<td>1,1</td>
</tr>
<tr>
<td></td>
<td>Widower</td>
<td>5</td>
<td>0,2</td>
</tr>
<tr>
<td>Language</td>
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</tr>
<tr>
<td></td>
<td>English</td>
<td>1278</td>
<td>47,7</td>
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<tr>
<td></td>
<td>Sepedi</td>
<td>61</td>
<td>2,3</td>
</tr>
<tr>
<td></td>
<td>Sesotho</td>
<td>40</td>
<td>1,5</td>
</tr>
<tr>
<td></td>
<td>Setswana</td>
<td>64</td>
<td>2,4</td>
</tr>
<tr>
<td></td>
<td>isiSwati</td>
<td>9</td>
<td>0,3</td>
</tr>
<tr>
<td></td>
<td>Tshivenda</td>
<td>8</td>
<td>0,3</td>
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<tr>
<td></td>
<td>isiZulu</td>
<td>83</td>
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<td>isiNdebele</td>
<td>5</td>
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<td></td>
<td>isiXhosa</td>
<td>53</td>
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</tr>
<tr>
<td></td>
<td>Xitsonga</td>
<td>10</td>
<td>0,4</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>13</td>
<td>0,5</td>
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<tr>
<td>Education</td>
<td>Grade 8 – Grade 11</td>
<td>190</td>
<td>7,1</td>
</tr>
<tr>
<td></td>
<td>Grade 12</td>
<td>1339</td>
<td>50,0</td>
</tr>
<tr>
<td></td>
<td>3 to 4 year Degree/Diploma</td>
<td>913</td>
<td>34,1</td>
</tr>
<tr>
<td></td>
<td>5 to 7 year Degree</td>
<td>96</td>
<td>3,6</td>
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<tr>
<td></td>
<td>Master’s Degree</td>
<td>74</td>
<td>2,8</td>
</tr>
<tr>
<td></td>
<td>Doctoral Degree</td>
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<tr>
<td></td>
<td>Technical College Qualification</td>
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<td>2,4</td>
</tr>
<tr>
<td>Age Category</td>
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<td>730</td>
<td>27,3</td>
</tr>
<tr>
<td></td>
<td>30-39 years</td>
<td>1208</td>
<td>44,9</td>
</tr>
<tr>
<td></td>
<td>40-49 years</td>
<td>551</td>
<td>20,7</td>
</tr>
<tr>
<td></td>
<td>50-59 years</td>
<td>159</td>
<td>6,0</td>
</tr>
<tr>
<td></td>
<td>60-69 years</td>
<td>30</td>
<td>0,9</td>
</tr>
</tbody>
</table>
As can be seen from Table 1, the sample constituted of 59.9% females, 52.1% were married, between the age of 30-39 years and English-speaking (47.7%). Grade 12 was the highest qualification for half of the participants (50%) and 34.1% of the participants were in possession of a 3 to 4 year degree or diploma.

Table 2 shows the descriptive statistics of participants with high and low levels of sense of coherence.

As can be seen from Table 2, in both the high and low group females constituted most of the sample (59.9%), most of the participants in both groups were between ages 29 and 37 years (44.9%), spoke English (47.7%) and in both samples most of the individuals had a Grade 12 qualification (50.0%). Most of the individuals in the sample with high levels of sense of coherence were married (54.3%) while most of the individuals in the sample with low levels of sense of coherence were single (47.7%).
### Table 2

*Demographic Characteristics of the Participants with High and Low Level of Sense of Coherence*

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>High levels of SOC</th>
<th>Low levels of SOC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
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<td>42,0</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>174</td>
<td>58,0</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
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<td>Engaged</td>
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</tr>
<tr>
<td></td>
<td>Married</td>
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<td>54,3</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
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</tr>
<tr>
<td></td>
<td>Widow</td>
<td>3</td>
<td>1,0</td>
</tr>
<tr>
<td>Language</td>
<td>Afrikaans</td>
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<tr>
<td></td>
<td>English</td>
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<td>48,7</td>
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<td>Sepedi</td>
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<td>0,7</td>
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<td>Sesotho</td>
<td>2</td>
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</tr>
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<td></td>
<td>Setswana</td>
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<td>isiSwati</td>
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<td>Age Category</td>
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<tr>
<td></td>
<td>29-37 years</td>
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<td>38-46 years</td>
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</tr>
<tr>
<td></td>
<td>56-63 years</td>
<td>10</td>
<td>3,1</td>
</tr>
</tbody>
</table>
Measuring instruments

The Orientation to Life Questionnaire (OLQ) (Antonovsky, 1987) and a biographical questionnaire were used to reach the objectives set for this study.

The Orientation to Life Questionnaire (OLQ) (Antonovsky, 1987) was used to measure the construct of sense of coherence. The OLQ exists in two forms; the longer version consisting of twenty-nine items, and the abridged 13-item scale. For purposes of this study the 13-item short form of this self-report questionnaire was used, which contains four meaningfulness, five comprehensibility, and four manageability items. The items are scored on a seven-point semantic differential scale with two anchoring phrases varying from 1 (very often) to 7 (very seldom or never). The 13-item version has been found to be a highly reliable measure. Antonovsky (1993) reported adequate Cronbach alphas for the scale, as did a number of local studies (Strümpfer & Wissing, 1998). In a study conducted by Antonovsky (1987), Kalimo and Vuori (1990) and Coetzee and Rothmann (1999), high internal consistency was reported (Cronbach's alpha between 0.84 and 0.93) and test-retest reliability was reported by Antonovsky (1993) as ranging between 0.41 and 0.97. The high inter-correlations between the three components of meaningfulness, comprehensibility and manageability have also been found in several previous studies (Flannery & Flannery, 1990; Kravets, Drory, & Florian, 1993).

The biographical questionnaire was used to gather information concerning the demographic characteristics of the participants, including gender, age, language, level of qualification and job title.

Statistical analysis

Statistical analysis was carried out by means of the SPSS programme (SPSS, 2003) and the AMOS programme (Arbuckle, 2003). SPSS was used to carry out statistical analysis regarding reliability, validity, construct equivalence, descriptive statistics and correlation coefficients. Cronbach alpha coefficients were used to assess the reliability (i.e. internal consistency) of the measuring instrument (Clark & Watson, 1995). Coefficient alpha contains important information regarding the proportion of variance of the items of a scale in terms of the total variance explained by the particular scale.
Descriptive statistics (e.g. means and standard deviations) were used to analyse the data. Structural equation modelling (SEM) as implemented in AMOS (Arbuckle, 1997) was used to test the factorial model for the OLQ, using the maximum likelihood method. Hypothesised relationships were tested empirically for goodness of fit with sample data (Byrne, 2001). Among the fit indices produced by the AMOS programme is the Chi-$\chi^2$ statistics which is the test of absolute fit of the model. However, the $\chi^2$ value is sensitive to sample size. Therefore additional goodness-of-fit indices were used in this study such as the $\chi^2$/degrees of freedom ratio ($\chi^2/df$) (Wheaton, Muthen, Alwin, & Summers, 1977), the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit index (AGFI), the Normed Fit Index (NFI), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root Means Square Error of Approximation (RMSEA).

The Normed Fit Index (NFI) is normed to fall on a 0 and 1 continuum. For the fit indexes (NFI, CFI, TLI) it is generally accepted that a value of less than 0,90 indicated that the fit of the model can be improved (Hoyle, 1995), although a revised cut-off value close to 0,95 has recently been advised (Hu & Bentler, 1999). Browne and Cudeck (1993) suggest the Root Mean Square Error of Approximation (RMSEA) should be 0,05 or less and the upper limit of the confidence interval should not exceed 0,08. Hu and Bentler (1999) suggested a value of 0,06 to be indicative of good fit between the hypothesised model and the observed data. MacCallum, Browne and Sugawara (1996) recently elaborated on these cut-off points and noted that RMSE values ranging from 0,08 to 0,10 indicate mediocre fit, and those larger than 0,10 indicate poor fit.

The content analysis was done by defining and categorising all written replies and eliminating redundant data. The units of analysis were determined in themes and sub-themes and then analysed before quantifying the data. The language was then transformed to scientific concepts and exact words to confirm themes.
RESULTS

Table 3 shows the goodness-of-fit statistics of the hypothesised OLQ model.

Table 3

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>$\chi^2/df$</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>2183,19</td>
<td>35,21</td>
<td>0,89</td>
<td>0,84</td>
<td>0,79</td>
<td>0,74</td>
<td>0,80</td>
<td>0,11</td>
</tr>
<tr>
<td>Model 2</td>
<td>2410,09</td>
<td>37,08</td>
<td>0,88</td>
<td>0,83</td>
<td>0,77</td>
<td>0,73</td>
<td>0,77</td>
<td>0,12</td>
</tr>
<tr>
<td>Model 3</td>
<td>1133,04</td>
<td>17,70</td>
<td>0,94</td>
<td>0,91</td>
<td>0,89</td>
<td>0,88</td>
<td>0,90</td>
<td>0,08</td>
</tr>
<tr>
<td>Model 4</td>
<td>897,41</td>
<td>14,25</td>
<td>0,95</td>
<td>0,93</td>
<td>0,91</td>
<td>0,90</td>
<td>0,92</td>
<td>0,07</td>
</tr>
</tbody>
</table>

Table 3 shows that the statistically significant $\chi^2$ value of 2183,19 ($df = 35,21; p = 0,00$) revealed a relatively poor overall fit of the hypothesised first model tested, Model 1(2 factor). However, both the sensitivity of the likelihood ratio test to sample size and its basis on the central $\chi^2$ distribution, which assumes that the model fits perfectly in the population, have been reported to lead to problems of fit (Joreskog & Sorbom, 1993).

The hypothesised first model was also not good from a practical perspective. The NFI, TLI and CFI values lower than 0,95 and RMSEA value higher than 0,05 is indicative of failure to confirm the hypothesised model. It is therefore apparent that some modification in specification is needed in order to determine a model that better represents the sample data. To pinpoint possible areas of misfit, standardised residual values were examined. Standardised residuals are fitted residuals divided by their asymptotically (large sample) standard errors (Joreskog & Sorbom, 1986). In essence, they represent estimates of the number of standard deviators that the observed residuals are from the zero residuals that would exist if model fit were perfect (Byrne, 2001). Values larger than 2,58 are considered to be large (Jorgeskog & Sorbom, 1986).

Post hoc analyses

Given rejection to the initially postulated 2-factor model, the focus shifted from model testing to model development (exploratory factor analysis). Considering the high-standardised residuals of one item, it was decided to re-specify the model to a 1-factor model, which is
labelled here as Model 2. The fit statistics are presented in Table 2 and also show a relatively poor fit of the hypothesised 1-factor OLQ model.

In Model 3, error variance of single items within the OLQ subscale, was permitted to correlate. A correlation was found between Item 5 and Item 6. The fit of the 1-factor Model was improved by allowing correlations of these error variances. The fit statistics for Model 3 still indicate poor fit for the re-specified model.

Error variance of single items within the OLQ subscale was again allowed to correlate in Model 4. Correlations were then found between Item 9 and Item 12. The fit statistics indicated a good fit for the re-specified model. Although the $\chi^2$ value of 897.41 ($df = 14.25; p = 0.00$) is still high, it is considerably lower than in Model 1. Although the RMSEA value is still relatively high, all the other fit statistics indicate acceptable fit of the measurement model to the data.

The hypothesised first model was also not good seen from a practical perspective. The PGI value lower than 0.80, NFI, TLI and CFI values lower than 0.95 and an RMSEA value higher than 0.05 is indicative of failure to confirm the hypothesised model. It is therefore apparent that some modification in specification is needed in order to determine a model that better represents the sample data. Since this model fits satisfactorily and the results agreed with the theoretical assumptions underlying the structure of the OLQ, no further modifications of the model were deemed necessary.

Table 4 shows the descriptive statistics, mean, and cronbach’s alpha coefficients of the OLQ.
Table 4

Descriptive Statistics, and Cronbach's Alpha Coefficient of the OLQ Instrument (N=2 678)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-item OLQ</td>
<td>64,21</td>
<td>12,36</td>
<td>-0,31</td>
<td>-0,13</td>
<td>0,85</td>
</tr>
<tr>
<td>High sense of Coherence (n = 300)</td>
<td>9,27</td>
<td>0,82</td>
<td>-0,53</td>
<td>-1,32*</td>
<td>0,83</td>
</tr>
<tr>
<td>(sten)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sense of Coherence (n = 300)</td>
<td>1,97</td>
<td>0,80</td>
<td>-0,54</td>
<td>-1,43*</td>
<td>0,85</td>
</tr>
<tr>
<td>(sten)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* High skewness and kurtosis

Table 4 reveals that acceptable alpha coefficients, ranging from 0,83 to 0,85, were obtained for the scales. This is in line with the guidelines provided by Nunnally and Bernstein (1994). From the α values it is evident that, with regard to internal consistency, all dimensions of OLQ are reliable. It is evident from Table 4 that the scores on the measuring instrument are relatively normally distributed, without high skewness and kurtosis. It can be said that this instrument showed sufficient reliability and validity to be used for subsequent analysis.

Table 5 shows the identified helping and restraining factors experienced by those employee groups with high levels of sense of coherence.
Table 5

*High Sense of Coherence: Helping and Restraining Factors*

<table>
<thead>
<tr>
<th>Helping Factors</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Having a challenging job</td>
<td>65</td>
</tr>
<tr>
<td>2. Being satisfied and passionate about job</td>
<td>50</td>
</tr>
<tr>
<td>3. Colleagues' support and cooperation</td>
<td>50</td>
</tr>
<tr>
<td>4. Reaching goals and being performance driven</td>
<td>36</td>
</tr>
<tr>
<td>5. Obtaining knowledge – continued training and development</td>
<td>30</td>
</tr>
<tr>
<td>6. Being able to render support to others and delivering a high quality service</td>
<td>26</td>
</tr>
<tr>
<td>7. Managerial style and skills</td>
<td>25</td>
</tr>
<tr>
<td>8. Relationships amongst colleagues, management and workers (satisfactory</td>
<td>25</td>
</tr>
<tr>
<td>working environment and conditions)</td>
<td></td>
</tr>
<tr>
<td>9. Monetary reward (monthly salary)</td>
<td>23</td>
</tr>
<tr>
<td>11. Having resources available</td>
<td>17</td>
</tr>
<tr>
<td>12. Receiving recognition from management, colleagues and clients</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restraining Factors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work overload and long working hours</td>
<td>30</td>
</tr>
<tr>
<td>2. Workforces being unskilled and no knowledge of product selling</td>
<td>27</td>
</tr>
<tr>
<td>3. Monetary reward (salary) insufficient</td>
<td>26</td>
</tr>
<tr>
<td>4. Managerial style being autocratic</td>
<td>21</td>
</tr>
<tr>
<td>5. Unnecessary administrative tasks and meetings (not using time optimally)</td>
<td>21</td>
</tr>
<tr>
<td>6. Company bureaucracy/red tape/company culture</td>
<td>18</td>
</tr>
<tr>
<td>7. No training, exposure or possible career progression</td>
<td>17</td>
</tr>
<tr>
<td>8. No recognition and appreciation from management, colleagues and clients</td>
<td>16</td>
</tr>
<tr>
<td>9. Mistrust among colleagues (working environment)</td>
<td>16</td>
</tr>
<tr>
<td>10. No assistance and support from management and colleagues</td>
<td>14</td>
</tr>
<tr>
<td>11. Negative attitudes held by management</td>
<td>12</td>
</tr>
<tr>
<td>12. Lack of communication within the organisation</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 5 shows that employees with high levels of sense of coherence regard a challenging job with which one is satisfied and passionate about as helping factors indicated with very high frequency rates. These employee groups reported high frequencies of helping factors in being empowered ("obtaining knowledge") and being performance driven ("reaching goals"). Further helping factors have been indicated as rendering support to others, the management style and skills of the supervisor, the environment and conditions in which the employees are
working, the monetary reward received and their own internal resources ("being self-driven and self-motivated"). The availability of resources (i.e. personal computers) and receiving recognition from management, colleagues and clients has also been identified as helping factors reported with relatively high frequency rates.

Employees with high levels of sense of coherence reported high frequency restraining factors in the form of work overload, working long hours and colleagues being unskilled and not knowledgeable about the product they need to sell. Further external restraining factors include dissatisfaction with monetary reward and a lack of recognition, appreciation, assistance and support from management, colleagues and clients. Managerial factors identified as restraining factors include an autocratic managerial style and negative attitudes portrayed by supervisors. Time management ("unnecessary administrative tasks and meetings"), the working environment ("no trusting relationship amongst colleagues"), a lack of communication and no set career paths ("no training, exposure, career progression") are restraining factors reported with relatively high frequency by employees with high levels of sense of coherence.

It is evident that employee groups with high levels of sense of coherence reported mostly external elements as restraining factors within the environment, while helping factors have been identified as both internal factors within the individual and external factors in the direct environment.

Table 6 shows the identified helping and restraining factors experienced by those employee groups with low levels of sense of coherence.
Table 6

*Low Sense of Coherence: Helping and Restraining Factors*

<table>
<thead>
<tr>
<th>Helping Factors</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Monetary reward/salary satisfactory</td>
<td>46</td>
</tr>
<tr>
<td>2 Receiving support and motivation from management and colleagues</td>
<td>38</td>
</tr>
<tr>
<td>3 Being performance driven and reaching goals</td>
<td>30</td>
</tr>
<tr>
<td>4 Gratitude; being thankful for having a job</td>
<td>27</td>
</tr>
<tr>
<td>5 Good team work among colleagues</td>
<td>25</td>
</tr>
<tr>
<td>6 Receiving training for development of new skills</td>
<td>23</td>
</tr>
<tr>
<td>7 Recognition and appreciation from management and colleagues</td>
<td>22</td>
</tr>
<tr>
<td>8 Having a challenging job with a variety of tasks</td>
<td>21</td>
</tr>
<tr>
<td>9 Positive relationship between management and workers</td>
<td>20</td>
</tr>
<tr>
<td>10 Being self-motivated/self-driven</td>
<td>19</td>
</tr>
<tr>
<td>11 Positive relationship among colleagues / positive working climate</td>
<td>18</td>
</tr>
<tr>
<td>12 Esthetical working environment</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restraining Factors</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Monetary reward/salary insufficient</td>
<td>43</td>
</tr>
<tr>
<td>2 Working long hours due to work overload and being understaffed</td>
<td>35</td>
</tr>
<tr>
<td>3 Managerial style</td>
<td>30</td>
</tr>
<tr>
<td>4 Quality relationship between management and workers and among colleagues</td>
<td>30</td>
</tr>
<tr>
<td>5 Receiving no recognition or appreciation from management and colleagues</td>
<td>27</td>
</tr>
<tr>
<td>6 Shortage of skilled and knowledgeable colleagues</td>
<td>25</td>
</tr>
<tr>
<td>7 Stress and pressure in the workplace</td>
<td>24</td>
</tr>
<tr>
<td>8 Lack of opportunities for being trained and developed</td>
<td>18</td>
</tr>
<tr>
<td>9 Negative attitudes of colleagues in workplace</td>
<td>15</td>
</tr>
<tr>
<td>10 Experiencing uncertainty about the future of the company</td>
<td>13</td>
</tr>
<tr>
<td>11 Lack of communication between workers and management and among colleagues</td>
<td>12</td>
</tr>
<tr>
<td>12 No procedures in place</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 6 shows that satisfactory monetary reward and receiving support and motivation from management and colleagues are reported with high frequency rates as helping factors by employee groups with low levels of sense of coherence. Not only does the external environment ("esthetical working environment") in which the employees find themselves act as helping factor, but also internal forces within the individual ("being self-motivated/self-driven"), gratitude, internal drive and general orientation towards working responsibilities...
Further helping factors identified by employees with low level of sense of coherence include a positive relationship among colleagues and management and workers, and good team work. Empowerment ("receiving training and development"), receiving support, motivation and recognition from management and colleagues are factors reported by employees with low levels of sense of coherence with high frequency.

Groups with low levels of sense of coherence reported high frequency of restraining factors as dissatisfaction with monetary reward, long working hours due to work overload and being understaffed. A shortage of skilled and knowledgeable workers, no training and development provided within the company acts as restraining factors, reported with a high frequency rate. Management issues such as supervisors not giving recognition and not showing appreciation, the management style of supervisors, a lack of communication between management and employees and a bad quality relationship between management and workforce are reported as restraining factors. Further restraining factors reported by groups with low levels of sense of coherence include negative attitudes among colleagues, stress in the workplace, and employees experiencing uncertainty regarding the future of the company.

Employee groups with low levels of sense of coherence reported helping factors as well as restraining factors as those internal forces within the individual as well as external forces in the environment.

Employee groups with both high and low levels of sense of coherence experience some similar helping and restraining factors within their working environment. Those groups with high levels of sense of coherence mostly experience a higher frequency of helping factors and a lower frequency of restraining factors compared to the employee groups with lower levels of sense of coherence that experience a higher frequency of restraining factors and a lower frequency of helping factors.

DISCUSSION

The first objective of this study was to validate the 13-item version of the Orientation to Life Questionnaire (Antonovksy, 1987). The study set out to determine the applicability of the theoretical model of sense of coherence to employees in a financial institution. Reliability
analysis revealed that the three subscales of sense of coherence were sufficiently internally consistent. The results obtained using the structural equation modelling approach supported the one-dimensional factor structure for sense of coherence amongst employees in a financial institution. The reliability analysis revealed that the alpha scores were acceptable. It can therefore be concluded that the 13-item version of the OLQ is a reliable and valid measuring instrument.

In this study an attempt was also made to determine how employees with high levels of sense of coherence (compared to those with low levels of sense of coherence) experience helping and restraining factors in their working environment in order to cope with the continuously changing environment and to eventually stabilise at an equilibrium point.

Sense of coherence is a general coping resource presumed to alleviate life stress by affecting the overall quality of cognitive and emotional appraisal of stimuli that impact on the individual. A strong sense of coherence is negatively-related to measures of negative affectivity such as anxiety and neuroticism (Frenz et al., 1993) and job stress (Feldt, 1997). A strong sense of coherence is positively related to competence and life satisfaction (Kalimo & Vuori, 1990) and general well-being (Feldt, 1997). A strong sense of coherence enables one to mobilise effective coping resources in the face of tension, predisposing one to move towards the health side of the health/disease continuum. A low sense of coherence is likely to result in poor tensions management and an inability to mobilise adequate resources, culminating in health breakdown (Antonovsky, 1987).

In this study it was found that employee groups with high levels of sense of coherence experience some similar helping and restraining factors within their changing working environment as those employee groups with low levels of sense of coherence. However, employee groups with high levels of sense of coherence experience higher frequency of helping factors compared to those employee groups with low levels of sense of coherence that experience higher frequency of restraining factors within their working environment. Groups with high levels of sense of coherence experience a higher frequency of helping factors such as having a challenging job, gratitude, the support and cooperation from colleagues and management, reaching goals and obtaining knowledge. These findings correlate with the research findings of Fouché and Rothmann (2001) who indicated that groups with high levels of psychological strengths (i.e. sense of coherence) use social support
from their environment, which includes their families and senior management, and obtaining knowledge in order to cope with changes within the organisation. Nel, Crafford, and Roodt (2004) find goal setting to have a moderating effect on sense of coherence. An organisation can therefore employ related dimensions of goal setting, to enhance an environment which promotes sense of coherence in the workplace to be utilised as a helping factor and better equip employees to cope with the changes within the working environment.

Having a positive relationship with colleagues and management and receiving recognition are helping factors both employee groups experience, but they are experienced with a higher frequency by groups with high levels of sense of coherence. Individuals who have rewarding interpersonal interactions with their co-workers experience more meaning in their work (May, Gilson, & Harter, 2004). When individuals are treated with dignity, respect and value for their contributions, and not simply as the occupants of that role, they are likely to obtain a sense of meaningfulness from their interactions. Qualitative (Isaksen, 1995) and quantitative (May, 2003) research support the relationship between rewarding co-worker interactions and meaningfulness. The above-mentioned helping factors are therefore to be added and reinforced by those individuals who find it difficult to define demands as meaningful.

Employees with low levels of sense of coherence experience good team work and identify the esthetical environment as helping factors within their working environment, whilst employees with high levels of sense of coherence experience the support rendered to others, managerial style and skills as well as having resources available as helping factors within their working environment.

Restraining factors experienced with a higher frequency by employee groups with low levels of sense of coherence include work overload, working long hours, insufficient monetary reward and the managerial style of supervisors and lack of communication within the company. In previous research (Corrigan, Holmes, Luchins, Buican, Basit & Parks, 1994) work overload has been identified as a stressor. No recognition from management, colleagues and clients, a negative attitude portrayed by management (compared to a negative attitude portrayed by colleagues within groups with high levels of sense of coherence), mistrust among colleagues, and no opportunity to progress in a career are experienced as restraining forces with higher frequency within groups with low levels of sense of coherence. These findings correlate with the literature findings that employees evaluate their work environment
in terms of the frequency of occurrence of specific job demands and pressure and the level of support provided by supervisors, co-workers and organisational policies and procedures (Callan, 1993; Spielberger et al., 2003).

An unskilled workforce is the only restraining factor experienced in a higher frequency by employee groups with high levels of sense of coherence compared to groups with low levels of sense of coherence. Employees with high levels of sense of coherence experience time management issues and the company bureaucracy as restraining factors within their working environment, whilst employee groups with low levels of sense of coherence identified restraining factors within their working environment as occupational stress, uncertainty about the future of the company and the lack of procedures in place.

From this study it is evident that employees behave differently in accordance with the way in which tension between perceptions of the self and of the environment were worked through, as indicated by Kurt Lewin (1947) and that employee well-being results from a dynamic transaction between the constituting elements of the environment and the individual’s cognitive processes (Cooper et al., 2001).

The employee group with a low level of sense of coherence experiences factors within their workplace as unpredictable, uncontrollable and uncertain (Antonovsky, 1987). These employees find it difficult to structure their world to be understandable, orderly and consistent and find it more difficult to make cognitive sense of the environmental stimuli. They find it difficult to dislodge the current equilibrium (i.e. stress due to changes within the working environment) and move it to the desired state (i.e. to cope with the changes) and stabilising the equilibrium at that point. To move the equilibrium level from the current to the desired conditions, the field of forces must be altered by adding driving forces and by removing restraining forces (French & Bell, 1999; Lewin, 1947). It is evident that groups with low levels of sense of coherence find it more difficult to alter driving forces in order to exceed restraining forces (Lewin, 1947). Therefore this group experiences more restraining factors within their working environment, and it is not successful in stabilising at the given equilibrium point. All this results in them not being able to cope with the changes in the working environment.
The employee group within this study with strong levels of sense of coherence perceive stimuli from their environment as making cognitive sense, being under control and as being meaningful (Antonovsky, 1987). These groups have a better understanding of the dimensions of the stressors within their environment and regard it as manageable by making use of effective coping strategies (Basson, Basson, Rothmann & Rothmann, 2001). It can therefore be said that these individuals understand the problematic situation within the working environment and are able to plan corrective actions. The stronger the sense of coherence, the stronger the tendency to identify the stressor within the environment and choosing the most suitable resource (i.e. helping factor) for the specific situation (Antonovsky, 1987). Groups with a strong sense of coherence are able to move to the desired state (i.e. to cope with the changes within the working environment) and to stabilise the equilibrium at that point by altering the field of forces through adding driving forces and removing restraining forces (French & Bell, 1999; Lewin, 1947).

The study population was also very homogeneous. Out of the sample of 600 employees, most were English-speaking females with a grade 12 qualification. Future studies should take into consideration the multi-cultural society in South Africa. This necessitates studying helping and restraining factors identified by individuals with different levels of sense of coherence for other industries from different cultural groups. A larger diverse sample size should be conducted in this field within other industries.

**RECOMMENDATION**

This study suggests that employee groups with high levels of sense of coherence experience a higher frequency of helping factors within their working environment compared to employees with low levels of coherence who experience a higher frequency of restraining factors within the working environment.

As proposed by Alban and Scherer (2005), the force field analysis (Lewin, 1947) will provide the individual with an opportunity to create an action plan for change in order to identify the forces that may work against change initiatives. By identifying helping and restraining factors within a specific organisation, employees will be able to take cognisance of restraining factors to be removed and helping forces to be added in order to successfully cope with occupational stress and changes within the working environment. The outcome could result
in an employee experiencing eustress which results in an increase in performance and productivity, job satisfaction and organisational commitment (Hobson et al., 2001).

Management should ensure that employees with high levels of sense of coherence receive constant recognition and support and are given the opportunity to support colleagues within the working environment. These employees should be placed in positions which they perceive as being challenging and unnecessary administrative tasks should be removed from their daily job tasks. Their working environment should be defined by a trusting relationship amongst colleagues. A clear set career path with continuous opportunities to obtain knowledge should be reinforced for these groups. Vague communication should be avoided within the working environment.

Team building activities should be reinforced for groups with low levels of sense of coherence in order to enhance good team work and positive relationships amongst colleagues and management. These groups should not have the burden of a huge work overload and be exposed to excessive stress in the workplace. Support, motivation and recognition from management and colleagues should be reinforced. These groups should be well informed about processes and procedures within the company.

It is suggested that organisation employ related dimensions of goal setting, life long learning, effective communication, career progression and support and recognition to employees, in order to enhance an environment which promotes sense of coherence in the workplace to be utilised as a helping factor and better equipping employees to cope with the changes within the working environment (Alban & Scherer, 2005).

No other studies have been done to identify those specific restraining and helping factors experienced by employees with high and low levels of sense of coherence. More studies should be conducted in this field in order to identify similar or additional restraining and helping factors as experienced by employees with high and low levels of sense of coherence. Also, groups with medium levels of sense of coherence should also be included in order to identify helping and restraining factors in their working environment. Further research should focus on quantifying the relationship between levels of sense of coherence and the helping and restraining factors within the working environment.
REFERENCES


CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to provide analysis and discussion of the literature and empirical results of the study. Conclusions are made with regard to the set research objectives. The first part of the chapter answers the research questions put forth in the first chapter. The limitations of the current study will be pointed out. Finally, recommendations are made for the organisation and future research.

3.1 CONCLUSIONS

In this section, conclusions are drawn regarding specific objectives and the empirical findings obtained in the present study.

- To determine the construct validity and reliability of the 13-item version of the Orientation to Life Questionnaire (OLQ) (Antonovsky, 1987).

For the Orientation to Life Questionnaire, the results obtained using the structural equation modelling approach supported a one-dimensional factor structure for sense of coherence among employees in a financial institution. The validity analysis revealed that all the alpha scores were acceptable. It can therefore be concluded that the OLQ 13-item version as a 1-factor model, is a reliable and valid measuring instrument. This finding is consistent with various previous studies done with other sample groups (Antonovsky, 1987, 1993; Coetzee & Rothmann, 1999; Kalimo & Vuori, 1990; Strümpfer & Wissing, 1998).

- To determine how employees with high levels of sense of coherence experience helping and restraining factors within their working environment.

Individuals with high levels of sense of coherence regard a challenging job one is satisfied with and passionate about as helping factors and indicated with very high frequency rates. These groups reported high frequencies of helping factors in being empowered by obtaining knowledge and by reaching goals. These findings correlate with the research findings of
Fouché and Rothmann (2001) who indicated that groups with high levels of psychological strengths (i.e. sense of coherence) use social support from their environment, which includes their families and senior management, and obtaining knowledge, in order to cope with changes within the organisation. Nel, Crafford and Roodt (2004) find goal setting to have a moderating effect on sense of coherence. An organisation can therefore employ related dimensions of goal setting with the view to enhance an environment which promotes sense of coherence in the workplace to be utilised as a helping factor and better equip employees to cope with the changes within the working environment.

Further helping factors have been indicated as rendering support to others, the management style and skills of the supervisor, the environment and conditions in which the employees are working, their monthly monetary reward, and being self-driven and self-motivated. The availability of personal computers and receiving recognition from management, colleagues and clients have all also been identified as helping factors, reported with relatively high frequency rates.

Employees with high levels of sense of coherence reported high frequency restraining factors as work overload and long working hours, and unskilled colleagues who are not knowledgeable about the product they are selling. Further external restraining factors include dissatisfaction with monthly salary and a lack of recognition, appreciation, assistance and support from management, colleagues and clients. Managerial factors identified as restraining factors include an autocratic managerial style and negative attitudes portrayed by supervisors.

Unnecessary administrative tasks and meetings which necessitate effective time management practices, no trusting relationship among colleagues, a lack of communication and no opportunity for training and exposure and thus career progression, are restraining factors reported with relatively high frequency by employees with high levels of sense of coherence. Individuals who have rewarding interpersonal interactions with their co-workers experience more meaning in their work (May, Gilson, & Harter, 2004). Qualitative (Isaksen, 1995) and quantitative (May, 2003) research support the relationship between rewarding co-worker interactions and meaningfulness. The above-mentioned helping factors are therefore to be added and reinforced by those individuals who find it difficult to define demands as meaningful.
It is evident that employee groups with high sense of coherence reported mostly external elements as restraining factors within the environment, while helping factors have been identified as both internal forces within the individual and external forces in the direct environment.

Individuals with high levels of sense of coherence perceive the stimuli from their working environment as making cognitive sense (comprehensibility), as being under control of others (manageable) and as being motivationally relevant and meaningful (meaningfulness). These groups then have the ability to make sense of a problematic situation (Lewin, 1947) and are able to understand the nature and dimensions of these stressors (Antonovsky, 1993; Strümpfer, 1990).

These groups are able to move to the desired state (i.e. eustress within the working environment) and eventually stabilise the balance at that point by means of driving forces that exceed the restraining forces (French & Bell, 1999; Lewin, 1947, 1951).

- To determine how employees with low levels of sense of coherence experience helping and restraining factors within their working environment.

Individuals with low levels of sense of coherence experience helping factors with a high frequency as satisfactory monetary reward and a challenging job with a variety of tasks. Not only does the esthetical working environment act as helping factor, but also internal forces within the individual such as gratitude, internal drive and general orientation towards working responsibilities. Further helping factors identified by employees with low level of sense of coherence include a positive relationship among colleagues and management and workers, and good team work. With high frequency by employees with low levels of sense of coherence reported empowerment by receiving training and being developed, receiving support, motivation and recognition from management and colleagues as helping factors.

Groups with low levels of sense of coherence reported high frequency of restraining factors as dissatisfaction with monetary reward, long working hours due to work overload and being understaffed. A shortage of skilled and knowledgeable workers and, no training and development provided within the company acts as restraining factors reported with a high frequency rate. Management issues such as supervisors not giving recognition and not
showing appreciation, the management style of supervisors, a lack of communication between management and employees and a bad quality relationship between management and workforce are reported as restraining factors. Further restraining factors reported by groups with low levels of sense of coherence include negative attitudes among colleagues, stress in the workplace, and employees experiencing uncertainty regarding the future of the company.

Employee groups with low levels of sense of coherence reported helping factors as well as restraining factors as both those internal forces within the individual and external forces in the environment. The group with a low level of sense of coherence experiences factors within its workplace as unpredictable, uncontrollable and uncertain (Antonovsky, 1987). They find it difficult to move from the current situation (i.e. stress due to changes within the working environment) to the desired state (i.e. to cope with the changes) and eventually stabilising the equilibrium at that point due to the fact that they are unable to add driving forces and remove restraining forces (Lewin, 1947; French & Bell, 1999). Therefore this group experiences more restraining factors within its working environment. This results in them not being able to cope with the changes in the working environment.

From this research it is evident that although employee groups with high and low levels of sense of coherence are experiencing similar helping and restraining factors within their working environment, helping factors are being experienced with a higher frequency by groups with high levels of sense of coherence and restraining factors with a higher frequency by groups with low levels of sense of coherence.

3.2 LIMITATIONS

The study population was very homogeneous. Out of the sample of 600 employees most were English-speaking females with a grade 12 qualification. Future studies should take into consideration the multi-cultural society in South Africa. This necessitates studying helping and restraining factors identified by individuals with different levels of sense of coherence for different cultural groups.
A further limitation of this study was that the focus was on employee groups within only one industry and therefore the results cannot be generalised to other employee groups within the broader industry.

3.3 RECOMMENDATIONS

3.3.1 Recommendations for the organisation

Organisations must take into consideration that occupational stress has a significant influence on the employee’s mental and physical health (Brunt, 2000; Goleman, 1995; Oginska-Bulik, 2005; Semmer, 1996; Sullivan, 1995). High stress levels have also been associated with reduced performance and productivity, decreased job satisfaction, a decline in organisational commitment and loyalty and an increase in turnover (Hobson, Delunas, & Kesic, 2001; Sullivan, 1995). Cascio (1989) adds to this list the direct costs of low morale, motivation, communication breakdowns and a negative effect on the quality of work relations. The collective effect of this could be disastrous for all organisations.

By using the force field analysis technique, organisations would be able to identify those restraining factors to be removed within the working environment and those helping factors to be added in order for individuals with low levels of sense of coherence to eventually stabilise at the desired equilibrium point and experience eustress and work engagement (Nelson & Simmons, 2003). It is suggested that organisation employ related dimensions of goal setting, life long learning, effective communication, career progression and support and recognition to employees, in order to enhance an environment which promotes sense of coherence in the workplace to be utilised as a helping factor and better equipping employees to cope with the changes within the working environment.

Employees with high levels of sense of coherence should receive continuous recognition from management and colleagues. These groups should also have the opportunity to give their support to colleagues. Routine administrative tasks should be removed from their scope of work and the job should be a challenge to the individual. Since individuals with high levels of sense of coherence regards self-motivation and being self-driven as helping factors, these individuals should not be managed by only giving instructions, they should have the freedom of making own decisions. Career progression opportunities and continuous training to acquire
new knowledge should be reinforced for these groups. Communication within the working environment should be clear.

Team building activities should be reinforced for groups with low levels of sense of coherence in order to enhance good teamwork and positive relationships amongst colleagues and management. It may be that individuals with low levels of sense of coherence should work as part of a team and not in isolation. These employees should not be recruited for positions which may be stressful; these groups should not work long hours, and have the burden of a huge work overload. Support, motivation and recognition from management and colleagues should be reinforced. These groups should be well informed about processes and procedures within the company.

3.3.2 Recommendations for future research

This is the first study to assess the helping and restraining factors identified by groups with different levels of sense of coherence. This concept warrants further quantitative research in terms of the relationship between levels of sense of coherence and the experience of force vectors within the working environment. This should also include groups with medium levels of sense of coherence experiences of helping and restraining factors within the environment.

Further research should also focus on quantifying the relationship between levels of sense of coherence and the helping and restraining factors within the working environment. Finally, future studies should include larger sample sizes from more homogeneous groups within different industries.
REFERENCES


