

**THE MEDIATING EFFECT OF SITUATIONAL SENSE OF
COHERENCE ON THE RELATIONSHIP BETWEEN JOB
INSECURITY AND GENERAL HEALTH:
A COMPARATIVE STUDY**

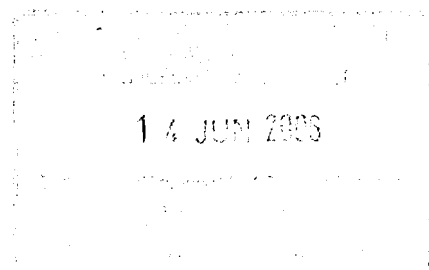
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REMARKS

The reader is reminded of the following:

The references, as well as the editorial style as prescribed by the Publication Manual (*4th edition*) of the American Psychological Association (APA), were followed in this mini-dissertation. This practice is in line with the policy of the Industrial Psychology Programme of the North-West University.

This mini-dissertation is submitted in the form of a research article.

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TABLE OF CONTENTS

	Page
List of Tables	iv
List of Figures	v
Summary	vi
Opsomming	viii
 CHAPTER 1: INTRODUCTION	
1.1 PROBLEM STATEMENT	p. 1
1.2 RESEARCH OBJECTIVES	p. 9
1.2.1 General objective	p. 9
1.2.2 Specific objectives	p. 9
1.3 RESEARCH METHOD	p. 10
1.3.1 Research design	p. 11
1.3.2 Participants	p. 11
1.3.3 Measuring instruments	p. 11
1.3.4 Statistical analysis	p. 13
1.4 CHAPTER DIVISIONS	p. 16
1.5 CHAPTER SUMMARY	p. 16
REFERENCES	p. 17
 CHAPTER 2: RESEARCH ARTICLE	 P. 23
 CHAPTER 3: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS	
3.1 CONCLUSIONS	p. 70
3.1.1 Conclusions regarding specific theoretical objectives	p. 70
3.1.2 Conclusions regarding the specific empirical objectives	p. 72
3.2 LIMITATIONS OF THE RESEARCH	p. 74
3.3 RECOMMENDATIONS	p. 75
3.3.1 Recommendations for the organisation	p. 75
3.3.2 Recommendations for future research	p. 78
3.4 CHAPTER SUMMARY	p. 79
REFERENCES	p. 80

LIST OF TABLES

Table	Description	Page
Table 1	<i>Compilation of the Study Population (N=337)</i>	p. 37
Table 2	<i>Goodness-of-fit Statistics for the JIQ Models</i>	p. 43
Table 3	<i>Goodness-of-fit Statistics for the OLQ-S Models</i>	p. 44
Table 4	<i>Goodness-of-fit Statistics for the GHQ Models</i>	p. 45
Table 5	<i>Descriptive Statistics, Cronbach Alpha Coefficients and Inter-Item Correlation Coefficients of the Measuring Instruments for employees working in Public and Private Sector Organisations</i>	p. 46
Table 6	<i>MANOVA – Differences in Job Insecurity levels of Demographic Groups</i>	p. 47
Table 7	<i>MANOVA – Differences in General Health levels of Demographic Groups</i>	p. 48
Table 8	<i>ANOVA – Differences in Situational Sense of Coherence levels of Demographic Groups</i>	p. 49
Table 9	<i>Correlation Coefficients between the JIQ, OLQ-S and GHQ</i>	p. 50
Table 10	<i>Regression Analysis – Total Job Insecurity and Situational Sense of Coherence: Somatic Symptoms</i>	p. 52
Table 11	<i>Regression Analysis – Total Job Insecurity and Situational Sense of Coherence: Anxiety and Insomnia</i>	p. 54
Table 12	<i>Regression Analysis – Total Job Insecurity and Situational Sense of Coherence: Social Dysfunction</i>	p. 56

LIST OF FIGURES

Figure	Description	Page
Figure 1	<i>Phases of the unemployment process</i>	p. 26

SUMMARY

Title: The mediating effect of situational sense of coherence on the relationship between job insecurity and general health: A comparative study.

Key words: Job insecurity, situational sense of coherence, general health.

Tremendous pressure is being placed on organisations to improve their work performance and to become increasingly competitive. In order to survive in a highly competitive economy, organisations in both the public and the private sector are undergoing major re-structuring and can no longer guarantee employees with life time employment, thus leading to job insecurity. A relatively large amount of research can be found in the literature regarding the relationship between job insecurity and various outcomes, for example, reduced job satisfaction and organisational commitment, and reduced well-being. Limited research has, however, been conducted on possible mediators of the job insecurity – outcomes relationship. Such research may be useful for the development of programmes to reduce the negative impacts of job insecurity.

The primary objectives of this research were to investigate the relationship between job insecurity and general health of employees ($N = 337$) in both the public and the private sector, as well as to determine whether situational sense of coherence mediates the relationship between job insecurity and general health. A further objective was to compare the job insecurity levels of public and private sector employees. A cross-sectional survey design was used. Constructs were measured by means of the Job Insecurity Questionnaire (JIQ), the Orientation to Life Questionnaire (Form S), the General Health Questionnaire (GHQ) and a biographical questionnaire.

Results indicated that a practically-significant relationship exists between job insecurity and general health, implying that high levels of job insecurity are associated with ill health (as displayed in somatic symptoms, anxiety and insomnia,

and social dysfunction). Regression analyses confirmed the partially mediating effect of situational sense of coherence on the relationship between job insecurity and general health. It was also found that public sector employees displayed higher levels of affective job insecurity than their private sector counterparts. Conclusions and recommendations were made.

OPSOMMING

Titel: Die mediërende effek van situasionele koherensiesin op die verhouding tussen werksonsekerheid en algemene gesondheid: 'n Vergelykende studie.

Sleutelwoorde: Werksonsekerheid, situasionele koherensiesin, algemene gesondheid.

Daar word geweldige druk op organisasies geplaas om hulle prestasie te verbeter en om toenemend mededingend te bly. Ten einde te oorleef in 'n hoogs mededingende ekonomie, moet organisasies herstruktureer in beide die openbare en privaat sektors en kan daarom nie meer werknemers met lewenslange indiensname waarborg nie wat op sy beurt aanleiding gee tot verhoogde vlakke van werksonsekerheid. 'n Redelike groot aantal studies wat handel oor die verhouding tussen werksonsekerheid en uitkomst, soos byvoorbeeld verminderde werkstevredenheid en organisasieverbondenheid, en verminderde welstand, kan in die literatuur gevind word. Beperkte navorsing is egter gedoen oor moontlike mediërende faktore in die werksonsekerheid – uitkomst verhouding. Hierdie tipe navorsing kan behulpzaam wees in die ontwikkeling van programme wat gemik is op die vermindering van die negatiewe impakte van werksonsekerheid.

Die primêre doelwitte van hierdie studie was om die verhouding tussen werksonsekerheid en algemene gesondheid te ondersoek, sowel as om te bepaal of situasionele koherensiesin die verhouding tussen werksonsekerheid en algemene gesondheid medieer. 'n Addisionele doelwit was om die werksonsekerheidvlakke van privaat en publieke sektor werknemers te vergelyk. Die Werksonsekerheidsvraelys, die Lewensoriëntasievraelys (Vorm S), die Algemene Gesondheidsvraelys en 'n biografiese vraelys is gebruik as meetinstrumente. 'n Dwarsnee opname-ontwerp is gebruik op werknemers ($N=337$) van beide publieke en private organisasies. Resultate het 'n prakties beduidende verhouding tussen werksonsekerheid en

algemene gesondheid aangedui, wat aandui dat werksonsekerheid verband hou met laer vlakke van algemene gesondheid (soos verteenwoordig deur somatiesse simptome, angstigheid en slapeloosheid, en sosiale disfunksie). Regressie analyses het bevestig dat situasionele koherensies in 'n gedeeltelike mediërende rol speel in die verhouding tussen werksonsekerheid en algemene gesondheid. Daar is ook bevind dat publieke sektor werknemers 'n hoër mate van affektiewe werksonsekerheid ervaar as privaat sektor werknemers. Gevolgtrekkings en aanbevelings is gemaak.

CHAPTER 1

INTRODUCTION

This mini-dissertation covers the relationship between job insecurity, situational sense of coherence and general health of employees in both the public and the private sector. In Chapter 1, the problem statement is discussed, and research objectives and research methods are defined. Chapter divisions are also laid out.

1.1 PROBLEM STATEMENT

So often, with the arrogance that accompanies power, developed countries assume the role of mentors, with the less economically-developed countries falling into the category of protégés. Thus, international institutions and political leaders in the developed countries often maintain that globalisation will inevitably eradicate the post-war social order to which the world has grown accustomed. The developed countries (the OECD and the G-8) control this new world order (Silver, 2004).

Whether globalisation refers solely to market integration or includes the accompanying rise of a "world society", no one denies that the trend brings social change. Change is rarely good for everyone, which means it entails risks. Silver (2004), states that rapid change - whether externally or internally driven - will reduce those aspects of security founded upon predictability. Silver (2004) further maintains that rapid change increases uncertainty, reduces information about the future, and makes it more difficult to plan, to invest, and to take reasonable risks. Just as the developed countries will use their power to shape change in their own interests, those who anticipate losing from change will oppose it, therefore making globalisation a "conflictual" process.

For years, South Africa had been excluded from the global market place and has only recently been exposed to the effects of the world economy, advanced technology and internal competition. In essence, we have only been "playing" by global rules for the past eleven years and, therefore, have much to learn.

Change in South Africa (over the past 11 years) has not only been economical but also political. The once stable, predictable and controllable environment has become complex, out of control and unpredictable. Not only does South Africa have to overcome persistent conditions such as commercial rivalries, governmental deregulation of industry and organisational technology change, but also sporadic/unexpected events such as a soft economy (Probst, 1998). Affirmative action plays a pivotal role in the change taking place in South Africa's corporate environment. Affirmative action programmes have proved controversial, particularly among existing job incumbents who may perceive their job security to be at stake (Day, 1991, as cited in Peverett, 1994). These changes are ongoing and this, together with a shrinking labour market, tends to increase job insecurity.

Above and beyond the current pressures being placed on our economy, South Africa is faced with an additional hurdle – i.e. a public sector which has, for many years, remained unaffected by the changes evolving in the market place. Public sector complacency has now changed owing to the State's privatisation policy (Sibiya, 2003). There is currently a great deal of pressure on the public sector to become profitable and competitive - this has resulted in high levels of job loss.

According to De Witte (1997, 1999), the subject of job insecurity relates to people in their work context who fear they may lose their jobs and become unemployed. Job insecurity has been defined as an individual's "expectations about continuity in a job situation" (Davy, Kinicki & Scheck, 1997); "overall concern about the future existence of the job" (Rosenblatt & Ruvio, 1996); "perception of a potential threat to continuity in his or her current job" (Heany, Israel & House, 1994); and "powerlessness to maintain desired continuity in a threatened job situation" (Greenhalgh & Rosenblatt, 1984). Van Vuuren (1990) defines job insecurity as the concern felt by a person in respect of the continued existence of his/her job. She specifically highlights three components: Firstly, job insecurity is a subjective experience or perception (different employees might perceive the same situation differently). Secondly, it implies uncertainty regarding the future and, finally, that doubts as such about the continuation of the job are central to job insecurity.

Hellgren, Sverke and Isaksson (1999) distinguish between quantitative and qualitative job insecurity. Quantitative job insecurity refers to the continuity of the job itself, whereas qualitative job insecurity refers to insecurity regarding the continued existence of valued aspects of the job, for example, pay, working hours, colleagues and job content. Job insecurity has usually been defined according to the global (quantitative) view, signifying the threat of job loss or job discontinuity (Hartley, Jacobson, Klandermans & Van Vuuren, 1991). The global viewpoint is concerned with the threats of imminent job loss. These measures typically focus on either the perceived probability (Mohr, 2000; Van Vuuren, 1990) or fear of job loss (Johnson, Messe & Crano, 1984). The Job Insecurity Questionnaire (JIQ) (De Witte, 2000) summarises both the cognitive and affective dimensions of job insecurity and conceptualises job insecurity from a global perspective. The cognitive dimension relates to the perceived *likelihood* of job loss as experienced by an employee, while the affective dimension deals with the *fear* of job loss.

De Witte (1999) is of the opinion that job loss is more upsetting for older employees (between the ages of 30 to 50). According to De Witte (1999), a possible reason for this could be that younger employees have less financial responsibilities and also better prospects of securing employment. Manki and Straub (2000) found that job insecurity tends to decrease with schooling. Dekker and Schaufeli (1995) elaborate that the threat of job loss should be less problematic for the more highly educated, as such occupational groups possess more resources to counteract the adverse consequences of unemployment. In South Africa, Viljoen (2005) found that culture has an influence on the way participants experience job insecurity - with concern among the white group being higher than their black counterparts. Bosman (2005) hypothesises that the high levels of job insecurity among white South Africans could be the result of current legislation (Employment Equity Act) and preferential procurement.

Literature suggests that perceptions of job insecurity may hold detrimental consequences for employees' attitudes (Ashford, Lee & Bobko, 1989; Davy et al., 1997; Rosenblatt, Talmud & Ruvio, 1999; Sverke & Hellgren, 2002); and it is further indicated that well-being (Barling & Kelloway, 1996; De Witte, 1999; Kinnunen, Mauno, Natti & Happonen, 2000; Mohr, 2000) has been found to have moderating effects on the stressor-

health relationship, as well as on employee mental health and family well-being (Larson, Weilson & Beley, 1994). Job insecurity has been associated with negative physical health outcomes (Dooley, Rook & Catalano, 1987; Hellgren & Sverke, 2003; Mohren, Swaen, Van Amelsvoort, Borm & Galama, 2003); and with higher reports of psychological distress (Probst, 2000). Employees with perceptions of low security are more likely to engage in work withdrawal behaviour (Probst, 1999) and job insecurity is often reported to result in reduced psychological well-being, characterised by symptoms such as anxiety, depression, irritation or strain-related psychosomatic complaints (Catalano, Rook & Dooley, 1986; Dekker & Schaufeli, 1995). The relationship between job insecurity and psychological well-being is also demonstrated in the research of Barchiesi (1999), who found that there is a clear indication that job insecurity and unemployment are detrimental to employee health. Barchiesi (1999) found that job insecurity creates stress by disturbing a person's sense of identity and self-esteem. McDonough (2000) reports that an analysis of data taken from a Canadian National probability sample conducted in 1994, determined that high levels of job insecurity tended to lower self-rated health and increased distress. The findings of this analysis support one possible mechanism of action whereby job insecurity reduces both the feeling of control over one's environment and the opportunities for positive self-evaluation. These psychological experiences, in turn, have deleterious health consequences. In a South African study, Viljoen (2005) found that affective job insecurity is related to increased levels of somatic symptoms, anxiety and insomnia, and social dysfunction.

This research will be conducted from an affective events theory perspective (Weiss & Cropanzano, 1996). The affective events theory is centred around the importance of "the structure, causes and consequences of affective experiences at work" (Weiss & Cropanzano, 1996: p. 11). The theory provides an explicit framework for examining the role of experience in the workplace, and hypothesises that cognitive evaluations of work will have different antecedents and outcomes than will emotional reactions experienced in real-time at work. If a goal obstruction is identified and there is a perceived imbalance between the environmental demands and the employee's ability to cope with those

demands (based on aspects such as disposition and available resources) stress will result. Resultant strain may become evident at a physiological, behavioural or psychological level, or a combination of these. For this reason, when stress exists, work attitudes and affective reactions are expected to be negative. Two additional strains that can result from stress are physical and mental health outcomes, which are expected to be mediated by work attitudes and affective reactions, but may also occur directly (Probst, 2002).

Psychological well-being is a complex construct consisting of various dimensions. According to Brodsky (1988), psychological well-being has four specific characteristics, namely, (1) it is subjective and emotional, (2) it is a state as opposed to a continuous part of who we are, (3) it is a product of personal endeavour, and (4) it is more than the absence of negative affect and personal conflict, but comes from moving toward desired life goals. Brodsky (1988) identifies various antecedents of psychological well-being, such as stress, physical health, work, career paths and work environment. It would appear as if one's job could either bring on illness, or contribute towards good health. Schaufeli and Bakker (2001) suggest that, on the one hand, work requires effort and is associated with negative feelings and a lack of freedom - while, on the other hand, work provides individuals with energy, enables them to develop and generate positive feelings.

In this research, general health is conceptualised according to the theory of Goldberg and Hillier (1979), which considers four aspects of general health, namely, (1) somatic symptoms, (2) anxiety and insomnia, (3) social dysfunction, and (4) severe depression.

Viljoen (2005) found that white South African employees experienced poorer health than black employees, particularly in terms of anxiety and insomnia, social dysfunction and severe depression (Viljoen, 2005). Viljoen's (2005) research furthermore indicated that persons employed at a government organisation for less than one year demonstrated lower levels of anxiety and insomnia than those participants who had worked in the organisation for six years or longer, indicating that tenure also plays a role in employee well-being.

It can readily be assumed that employees will react differently to the gradually changing characteristics of employment conditions and jobs (Sverke & Hellgren, 2002). An individual's reaction may depend on a number of factors, such as labour market characteristics, individual characteristics, family responsibility, age and gender. On the one hand, employees who feel that they could obtain work easily may view the changing nature of work in a positive light. On the other hand, those who hold economic responsibility for their family, and who feel that they would experience difficulty in finding work, would experience this in a more negative manner.

The manner in which individuals appraise and cope with stressful situations is known as sense of coherence (Antonovsky, 1987). Sense of coherence refers to an integrated way of looking at the world in which one lives (Antonovsky, 1993a). Sense of coherence describes a "salutogenic" orientation to life that makes successful coping possible by enabling individuals to learn to use their own resources to their best advantage when dealing with life's challenges (Artinian & Conger, 1997).

This research will focus on *situational* sense of coherence rather than *dispositional* sense of coherence. Artinian and Conger (1997) define situational sense of coherence as a narrower construct that describes the response that occurs in the period of time in which a client is attempting to deal with a serious life event. Situational sense of coherence measures the integrative potential in a person's understanding of his/her situation, his/her way of looking at the situation, and the ability to gather and use resources.

Situational sense of coherence contains the same three dimensions identified in sense of coherence, but they are defined by Artinian and Conger (1997) to reflect a present, specific orientation rather than a global orientation. Artinian and Conger (1997) note that comprehensibility refers to the extent to which one perceives the stimuli present in the situational environment as making cognitive sense and being consistent, structured and clear, rather than disordered, random, or inexplicable. Meaningfulness refers to the extent to which one feels that the problems and demands posed by the situation are worth investing time and energy into, rather than viewing them as burdens. Manageability relates to the extent to which one perceives the resources at one's disposal as being

adequate to meet the demands posed by the stimuli present in the situation so that one does not feel victimised or treated unfairly (Artinian & Conger, 1997).

Wissing and Van Eeden (2002) found significant differences between the scores of black and white groups on indices of psychological well-being. The black group presented with lower levels of psychological well-being. It should be noted, however, that these differences may result from different socio-cultural backgrounds, idiosyncratic factors, as well as life circumstances. Antonovsky (1979) states that resistance resources are lower in historically black communities and, as a result of this, people from these groups are more prone to stress and a lower sense of coherence. According to Wissing and Van Eeden (2002), it is generally expected that the new socio-political dispensation (which upholds basic human rights and ensures equality for all) will eventually bring about higher levels of psychological well-being throughout the previously disadvantaged communities. With regard to gender, Hobfoll (1989) is of the opinion that women have less access to resources that could help buffer stress and maintain wellness. Antonovsky (1991) argued that cultural, social and role patterns constructed for men and women - as well as a lack of the socio-economic value of women's contributions to society and the labour market – feature largely in determining females' level of psychological well-being. However, one needs to interpret these findings within the present context of Employment Equity initiatives and the move towards gender equality and empowerment.

Limited research on situational sense of coherence has been conducted in the South African context. However, an international study conducted by Suominen, Helenius, Blomberg, Uutela and Koskenvuo (2001) showed that a strong sense of coherence is associated with various aspects of perceived good health. The association does not seem to be entirely attributable to underlying associations of sense of coherence with other variables such as age or level of education. The result of their study indicates that a strong sense of coherence predicted good health in men and women. Research conducted by Feldt, Kinnunen and Mauno (2000) showed that a good organisational climate and low job insecurity were related to strong sense of coherence, which was, in turn, linked to a high level of general, as well as occupational, well-being. In addition, employees who experienced changes in organisational climate and leadership relations during the follow-

up period, showed changes in sense of coherence which were, in turn, related to changes in the well-being indicators. For this reason, it is perceived that situational sense of coherence may play a mediating role in the relationship between job insecurity and general health. According to Baron and Kenny (1986), a given variable may function as a mediator to the extent that it accounts for the relation between the predictor and the criterion. A mediator explains how external physical events take on internal psychological significance.

Ferrie (2003) states that, until recently, the public sector and the civil service in South Africa were immune to pressures emanating from the marketplace. Among the main attractions of public sector employment were the offer of a career, job security, and satisfactory conditions of service. However, much of these aspects have changed due to the adoption of the privatisation policy by the State, as well as the deregulation of industry (Sibiya, 2003). In 1994, Manksi and Straub (2000) found that, despite the changes occurring in the public service, government employees still tended to feel more secure than their counterparts in the private sector. It is, however, important to note that restructuring only really started taking place in 1994 and, at that stage, not many employees had been affected by the changes. However, many employees have since been retrenched or offered "packages" to leave - this has increased employees' fears of losing their jobs.

Unemployment is rife in South Africa and, as such, job insecurity is prevalent among employees. A clear link has been found between high levels of job insecurity and ill health (both physical and psychological), and as such it is imperative to determine whether any variable is able to mediate the relationship between these two variables. If situational sense of coherence is found to have a mediating effect on the relationship between job insecurity and general health, it will mean that there will be ways in which individuals can learn to deal with or manage the negative effects that job insecurity has on one's health.

The aim of this research is, therefore, to determine whether situational sense of coherence has a mediating effect on the relationship between job insecurity and general health, as well as to compare the job insecurity levels of both public and private sector employees.

On the basis of the abovementioned problem statement, the following research questions can be formulated:

- How are job insecurity, situational sense of coherence and general health - and the relationship between these constructs - conceptualised in the research literature?
- What is the relationship between job insecurity, situational sense of coherence and general health with regard to public and private sector employees?
- Does situational sense of coherence mediate the relationship between job insecurity and general health as experienced by public and private sector employees?
- Do public and private sector employees differ in terms of their levels of job insecurity?
- Do demographic groups differ in terms of their job insecurity, situational sense of coherence and general health levels?

1.2 RESEARCH OBJECTIVES

The research objectives can be divided into the general and specific objectives.

1.2.1 General objective

With reference to the above formulation of the problem, the general objective of this research is to establish the relationship of job insecurity and general health, and to determine whether situational sense of coherence mediates the relationship between these two variables.

1.2.2 Specific objectives

The specific objectives are:

- To conceptualise job insecurity, situational sense of coherence and general health, and the relationship between these constructs, from literature.
- To determine the levels of job insecurity, situational sense of coherence and general health with regard to public and private sector employees.
- To determine whether situational sense of coherence mediates the relationship between job insecurity and general health as experienced by public and private sector employees.
- To determine whether public and private sector employees differ in terms of their levels of job insecurity.
- To determine whether demographic groups differ in terms of their job insecurity, situational sense of coherence and general health levels

1.3 RESEARCH METHOD

The research method consists of a literature review and empirical study.

1.3.1 Literature review

In the literature review, the focus is on previous research that has been done on job insecurity, situational sense of coherence and general health. The following databases will be consulted:

- Internet
- Emerald
- Reportorium of South African and International journals
- Library catalogues
- Newspapers
- Books

1.3.2 Empirical study

1.3.2.1 Research design

A cross-sectional survey design will be used to reach the objectives of the study. Use will also be made of a correlation design (Huysamen, 1993). This design can be used to assess interrelationships among variables at one point in time, without any planned intervention. According to Shaughnessy and Zechmeister (1997), this design is ideally suited when the aim of a study is predictive and descriptive by nature.

1.3.2.2 Participants

The total populations of employees, both from a public ($N=168$) and a private ($N=169$) sector organisation, will be targeted for the purposes of this research.

1.3.2.3 Measuring instruments

The following measuring instruments will be used in this study:

- The Job Insecurity Questionnaire (De Witte, 2000)
- The Orientation to Life Questionnaire – Form S (Antonovsky, 1987)
- The General Health Questionnaire (Goldberg & Hillier, 1979)

The *Job Insecurity Questionnaire (JIQ)* (De Witte, 2000) will be used to measure job insecurity. The eleven items of the JIQ summarise both the cognitive and affective dimensions of job insecurity and are arranged along a five-point scale, with one (1) being "strongly disagree" and five (5) representing strong agreement. An example of a question relating to cognitive job insecurity would be, "I am sure I can keep my job", whereas an example of a question relating to affective job insecurity would be "I am worried about keeping my job". The items on the JIQ, measuring global insecurity, are reported to have a Cronbach alpha coefficient of 0, 92 (De Witte, 2000). De Witte (2000) found that the overlap between both predictive factors (cognitive and affective) is significant, making it complicated to distinguish between the two dimensions. Both scales are shown to be highly reliable, with the six items measuring cognitive job insecurity displaying a Cronbach alpha coefficient of 0, 90; and the five items of affective job insecurity having

a Cronbach alpha coefficient of 0,85. According to De Witte (2000), the content of these two scales do not overlap but, nevertheless, show a high underlying correlation ($r = 0,76$; $p < 0,0001$). This indicates that both aspects strongly refer to one another and are not "accurately" differentiated in the perceptions of the respondents. In terms of South African research, Labuschagne (2005) obtained an alpha coefficient of 0,79 for the total JIQ - 0,73 for the affective subscale, and 0,70 for the cognitive subscale.

The *Orientation to Life Questionnaire – Form S (OLQ-S)* (Antonovsky, 1987) will be used to measure the participant's situational sense of coherence. The OLQ-S (situational form) is new to South Africa and, as such, no reliability and validity statistics are available on it. The reliability and validity statistics of the OLQ (general form) will therefore be incorporated into this study. The items of the OLQ-S summarise the manageability, meaningfulness and comprehensibility dimensions of situational sense of coherence and are arranged along a seven-point scale. An example of a question relating to manageability would be, "In the situation you are in, do you feel that: You can find a solution, or, There is no solution". An example of a question relating to meaningfulness would be, "When you think about the situation you are in, you very often: Feel how good it is to be alive, or, Ask yourself why you exist at all", whereas an example of a question relating to comprehensibility would be, "Do you feel that your feelings and ideas are mixed-up?" After reviewing 29 validity and reliability results of the OLQ, Antonovsky (1993) found the average alpha coefficient to vary between 0,85 and 0,91. Antonovsky (1993) further noted that the test-retest reliability studies indicate coefficients between 0,41 and 0,97. In South Africa, Rothmann, Malan and Rothmann (2001) found Cronbach alpha coefficients varying from 0,73 to 0,85 for the OLQ.

The *General Health Questionnaire (GHQ)* (Goldberg & Hillier, 1979) will be used to measure psychological well-being. For the purpose of this study, the 28-item version will be used. Responses are given on a 4-point Likert-type scale, with the total scale ranging from 28 to 112. Four subscales measure the degree of somatic symptoms; anxiety and insomnia; social dysfunction and severe depression. An example of a question relating to somatic symptoms would be, "Felt that you are ill?". An example of a question relating to anxiety and insomnia would be, "Lost much sleep over worry?", whereas an example of

social dysfunction would be, "Been managing to keep yourself busy and occupied?". Lastly, an example of a question relating to severe depression would be, "Felt that life is entirely hopeless?". A high score on the GHQ is indicative of a high level of psychological distress, whereas a low score is indicative of a low level of psychological distress. In South Africa, Isaksson and Johansson (2000) obtained Cronbach alpha coefficients of 0,86, and Oosthuizen (2001) obtained a reliability coefficient of 0,89 for the GHQ. Viljoen (2005) obtained an alpha coefficient of 0,76 for the total GHQ, 0,71 for the somatic symptoms subscale, 0,79 for the anxiety and insomnia subscale, 0,74 for the social dysfunction subscale, and 0,80 for the severe depression subscale.

1.3.3 Statistical analysis

The statistical analysis is conducted using the SPSS (2003) statistical tool. Descriptive statistics (mean, standard deviation, skewness and kurtosis) will be used to analyse the data. Alpha coefficients and inter-item correlations will be used to determine the validity and reliability of the measuring instruments. Furthermore, Structural Equation Modelling (SEM) methods, as implemented by AMOS (Arbuckle, 1997), will be used to test the factorial models for the JIQ, OLQ-S and GHQ. SEM is a statistical method that follows a hypothesis-testing approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2001). In essence, the researcher imposes the structure of the hypothesised model on the sample data, thereafter testing how well the observed data fit the restricted structure. Hypothesised relationships will be tested empirically for the goodness of fit with the sample data. The χ^2 statistic and several other goodness-of-fit indices which sum up the degree of correspondence between the inferred (hypothesised) and observed covariance matrices, will be used. If used in isolation, the χ^2 statistic can lead to certain limitations, given its sensitivity to sample size. Researchers have addressed the χ^2 limitations by developing goodness-of-fit indexes that take a more pragmatic approach to the evaluation process. One of the first fit statistics to address this problem was the $\chi^2/\text{degrees of freedom}$ ratio (CMIN/DF) (Wheaton, Muthén, Alwin & Summers, 1977), which is the minimum discrepancy per degree of freedom. These

criteria, also referred to as "subjective" or "practical" indices of fit, are frequently used as additions to the χ^2 statistic.

The Goodness of Fit Index (GFI) indicates the relative amount of the variance/co-variances in the sample predicted by the estimates of the population. The Adjusted Goodness-of-Fit Index (AGFI), which is a measure of the relative amount of variance accounted for by the model, corrected for degrees of freedom in the model relative to the number of variables, will also be used. The AGFI differs from the GFI in that the AGFI adjusts for the number of degrees of freedom in the specified model, thus also addressing the issue of parsimony by incorporating a penalty for the inclusion of additional parameters. Both the GFI and AGFI are classified as absolute indexes of fit because they basically compare the hypothesised model with no other model at all (Hu & Bentler, 1999). Both these indexes range from 0 to 1, with values close to 1 (i.e. exceeding 0,9) being considered as indicative of good fit.

The next set of goodness-of-fit statistics can be classified as incremental or comparative indexes of fit. The Normed Fit Index (NFI) is used to assess a global model fit. The NFI, similar to the CFI and TLI, is normed to fall on a 0 to 1 continuum and is considered to represent the point at which the model under evaluation falls on the scale running from a null model to perfect fit. The Comparative Fit Index (CFI) also compares the hypothesised and independent models, but takes cognisance of sample size. Although both the NFI and CFI are included in the AMOS output, it has been suggested that the CFI should be the index of choice (Bentler, 1990). The Tucker-Lewis Index (TLI) is a relative measure of co-variation, explained by the model, which is specifically developed to assess factor models (Tucker & Lewis, 1973). Although a value larger than 0,90 was originally considered representative of a well-fitting model, a revised cut-off value close to 0,95 has been devised (Hu & Bentler, 1999). As suggested by Browne and Cudeck (1993), the Root Mean Square Error of Approximation (RMSEA), which estimates the overall amount of error in the hypothesised model-data fit, relative to the estimated parameters of the model and the 90% confidence interval of the RMSEA, will be used. The RMSEA essentially asks how well the model, with unknown but optimally chosen parameters, would fit the population covariance matrix if it were available. Values less

than 0,05 represent good fit, and values as high as 0,08 represent reasonable errors of approximation in the population (Browne & Cudeck, 1993).

In addition to statistical significance, Pearson product moment correlation coefficients will be determined in order to indicate the extent to which one variable is related to another. Effect sizes will be used to determine the practical significance of relationships between variables. The level of statistical significance is set at $p < 0,01$. Steyn (2002) criticises the sole use of statistical significance testing and recommends that effect sizes be established to determine the importance of a statistically-significant relationship. While reporting of effect sizes is encouraged by the American Psychological Association (APA) in their Publication Manual (APA 1994), most of these measures are seldom found in published reports (Kirk, 1996; Steyn, 2002). Therefore, effect sizes will be computed to assess the practical significance of relationships in this study. A cut-off point of 0,30, which represents a medium effect (Cohen, 1988; Steyn, 2002), is set for the practical significance of the correlation coefficients. MANOVA and ANOVA will be used to determine differences between different demographic groups' levels of job insecurity, sense of coherence and general health. Regression analyses will be carried out to determine the percentage variance in the dependent variable that is predicted by the independent variables, as well as to test whether situational sense of coherence plays a mediating role in the relationship between job insecurity and general health.

1.3.4 Research procedure

Permission to undertake the research was granted by a local municipality in the Vaal Triangle region (public sector), as well as from various private sector organisations. The testing will be conducted on employees from various departments within these entities and, for the most part, the tests will be administered in groups in order to be as cost and time efficient as possible. Anonymity of the participants and their organisations will be guaranteed.

1.4 CHAPTER DIVISION

Chapter 1: Introduction, problem statement and objectives

Chapter 2: Article: "The mediating effect of situational sense of coherence on the relationship between job insecurity and general health: A comparative study".

Chapter 3: Conclusions, limitations and recommendations

1.5 CHAPTER SUMMARY

In this chapter an introduction to the research study was given. The problem statement briefly outlined the constructs and reasons for the study. Research objectives were given and the chapter was concluded by discussing the research method and providing an indication of the chapter divisions.

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CHAPTER 2

¹THE MEDIATING EFFECT OF SITUATIONAL SENSE OF COHERENCE ON THE RELATIONSHIP BETWEEN JOB INSECURITY AND GENERAL HEALTH: A COMPARATIVE STUDY

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ABSTRACT

The primary objectives of this research were to examine the relationship between job insecurity and general health and to test whether situational sense of coherence mediates the relationship between job insecurity and general health. A further objective was to compare the job insecurity levels of public and private sector employees. The Job Insecurity Questionnaire, Orientation to Life Questionnaire (Form S), the General Health Questionnaire and a biographical questionnaire were used as measuring instruments. A cross-sectional survey design was conducted among employees ($N=337$) at both public and private organisations. Results demonstrated a practically-significant relationship between job insecurity and general health (as demonstrated by somatic symptoms, anxiety and insomnia, and social dysfunction) and that situational sense of coherence partially mediates this relationship. It was furthermore indicated that public sector employees experience higher levels of affective job insecurity than their private sector counterpart.

OPSOMMING

Die primêre doelwitte van hierdie studie was om die verhouding tussen werksonsekerheid en algemene gesondheid te ondersoek, sowel as om te bepaal of situasionele koherensiesin die verhouding tussen werksonsekerheid en algemene gesondheid medieer. Daar is verdermeer gepoog om die werksonsekerheidsvlakke van publieke en privaat sektor werknemers te vergelyk. Die Werksonsekerheidsvraelys, die Lewensorientasievraelys (Vorm S), die Algemene Gesondheidsvraelys en 'n biografiese vraelys is gebruik as meetinstrumente. 'n Dwarsnee opname-ontwerp is gebruik op werknemers ($N=337$) van beide publieke en private organisasies. Resultate het 'n prakties beduidende verhouding tussen werksonsekerheid en algemene gesondheid (soos verteenwoordig deur somatiese simptome, angstigheid en slapeloosheid, en sosiale disfunksie) aangedui, asook dat situasionele koherensiesin die verhouding gedeeltelik medieer. Dit was

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verdermeer aangedui dat publieke sektor werknemers hoër vlakke van affektiewe werksonsekerheid ervaar as privaat sektor werknemers.

During the course of the past few decades, numerous studies have examined the psychological effects of work and unemployment (De Witte, in press). A review of the literature and research to date shows that well-being is negatively influenced by unemployment and that work conditions impact on aspects such as well-being and work-related attitudes. According to De Witte (in press), the topic of job insecurity is situated between employment and unemployment, as it relates to employed persons who feel threatened by unemployment.

Owing to various factors such as fundamental changes in the economic system of numerous countries, as well as globalisation, job insecurity has become a sizeable social phenomenon (De Witte, in press). Globalisation has brought about many changes and upheavals in organisations worldwide (Greenglass, Burke & Fiksenbaum, 2002). Increasing pressure is being placed on organisations to improve their work performance and to become increasingly competitive. Profitability has become the focal point, as sources of cost-saving are determined. According to Sverke, Hellgren and Näswall (2002), organisational downsizing (through permanent layoffs and offers of early retirement) has become one of the most commonly used strategies for the improvement of effectiveness and competitive ability. For many years the public sector remained unaffected by the changes evolving in the market place. However, as a result of the State's privatisation policy, a great deal of pressure is being placed on the public sector to become profitable and competitive and this has resulted in high levels of job insecurity.

Jacobson (1991) is of the opinion that a preliminary step towards a better understanding of job insecurity is appreciating that there is no one-to-one correspondence between job insecurity and other employment-related crises, especially within the job loss experience. Nevertheless, job insecurity is the forerunner in the process of job loss in some respects. Hartley, Jacobson, Klandermans and Van Vuuren (1991) have built on, and modified, earlier writers' representations of the stages of job loss. Their representation of the sequence of the job loss process (as reflected in Figure 1) plots job insecurity as the first of three stages; and is associated with planned, but unannounced, redundancies.

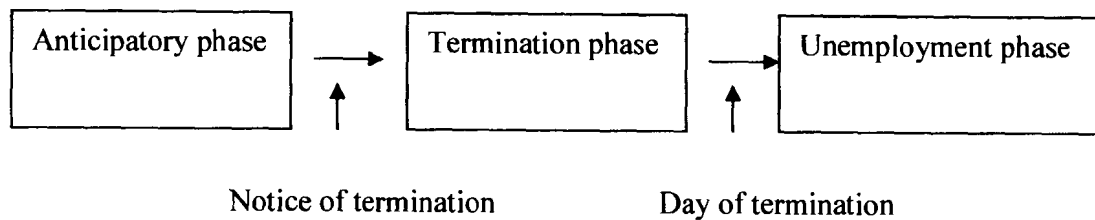


Figure 1: *Phases of the unemployment process (Jacobson, 1991, p.24)*

With regard to the above depiction of the unemployment process (Figure 1), Jacobson (1991) notes that viewing job insecurity as a stage in a sequence does not imply that it will necessarily be followed by job loss or unemployment. This is due to the fact that, in a large majority of cases, the population experiencing job insecurity is significantly larger than the number of employees who end up losing their jobs.

De Witte (1997, 1999) states that the subject of job insecurity relates to people in their work context who fear that they may lose their jobs and become unemployed. Rosenblatt and Ruvio (1996) view job insecurity as the overall concern about the future existence of the job, while Heany, Israel and House (1994) conceptualise it as a perception of a potential threat to continuity of a person's current job.

According to Mauno and Kinnunen (1999), literature usually conceptualises job insecurity from three general points of view, as being (i) a global or (ii) multi-dimensional concept, or (iii) a job stressor. In most instances, job insecurity has been defined according to the global viewpoint, signifying the threat of job loss or job discontinuity (Caplan, Cobb, French, Van Harrison & Pinneau, 1980). Generally, this definition has been applied in the context of organisational crisis or change, in which job insecurity is considered as a first phase of the process of job loss (Ferrie, 1997; Joelson & Wahlquist, 1987). Van Vuuren (1990) emphasises that job insecurity has the following components: Firstly, it is a subjective experience or perception, as different employees might perceive the same situation differently. Secondly, job insecurity implies uncertainty regarding the future and, finally, doubts about the continuation of the job, as such, are central to job insecurity.

Researchers who have adopted the multi-dimensional definition of job insecurity, argue that job insecurity refers not only to the degree of uncertainty, but also to the continuity of certain dimensions such as opportunities for promotion (Ashford, Lee & Bobko, 1989; Borg & Elizur, 1992; Rosenblatt & Ruvio, 1996). According to De Witte (1999) and Van Vuuren (1990), job insecurity consistently presents itself as a stressor. With regard to consequences, a distinction is made between stress reactions and coping behaviour. According to Van Vuuren (1990), stress reactions refer to the consequences of the stressor for psychological well-being, while coping refers to the way in which the person deals with stress. Sverke, Hellgren, Näswall, Chirumbolo, De Witte & Goslinga (2004) note that in terms of the stress theories, a stressor is considered to be the result of some type of strain reaction, with consequences for the health and well-being of the individual, as well as for the individual's work-related attitudes and behaviour.

Researchers differentiate between quantitative and qualitative job insecurity (Hellgren, Sverke & Isaksson, 1999). Quantitative job insecurity refers to the continuity of the job itself, i.e. people are uncertain about whether they will be able to retain their job or if they will become unemployed. Qualitative job insecurity refers to insecurity regarding the continued existence of valued aspects of the job, such as pay, working hours, colleagues and the job content (i.e. responsibility and autonomy). The Job Insecurity Questionnaire (JIQ) (De Witte, 2000) summarises both the cognitive and affective dimensions of job insecurity and conceptualises job insecurity from a global perspective. The cognitive dimension relates to the perceived *likelihood* of job loss as experienced by an employee, while the affective dimension deals with the *fear* of job loss.

De Witte (1999) is of the opinion that job loss is more upsetting for older employees (between the ages of 30 to 50). He believes that a possible reason for this could be that younger employees have less financial responsibilities and better prospects of finding a job. Contrary to these findings, Manki and Straub (2000) found that expectations of job loss decrease with age. They also found that job insecurity tends to decrease with schooling. Dekker and Schaufeli (1995) elaborate that the threat of job loss should be less problematic for the more highly educated, as such occupational groups possess more resources to counteract the adverse consequences of unemployment.

Viljoen (2005) and Bosman (2005) found that culture has an influence on the way participants experience job insecurity - with concern among the white group being higher than their black counterparts. The high levels of job insecurity among white South Africans could be a result of current legislation (Employment Equity Act) and preferential procurement. No statistical differences were found to exist in the job insecurity levels of difference in tenure, qualification and age groups in a sample of South African government employees (Bosman, 2005).

Job insecurity is considered a work stressor and it is, therefore, not surprising that it has a negative impact on employees' health and well-being (Karasek & Theorell, 1990; Siegrist, 1996; Warr, 1987). Research indicates that job insecurity correlates consistently with a lower score on various indicators of well-being at work (Ashford et al., 1989; Davy, Kinicki & Scheck, 1997; Rosenblatt, Talmud & Ruvio, 1999). Another finding is that general indicators of psychological well-being (Büssing, 1999; Hellgren et al., 1999) and life satisfaction (Lim, 1997) are lower among insecure workers. An increased level of irritation and anxiety, and psychosomatic as well as physical complaints, is found among insecure workers (Burchell, 1994; Hartley et al., 1991).

This research will be conducted from an affective events theory perspective (Weiss & Cropanzano, 1996). Central to the theory, is the notion that individuals' affective reactions to specific, emotionally-loaded work events are key determinants of their attitudes and their behaviour at work. Weiss and Cropanzano (1996) distinguish between specific affective events and more general features of the work environment, suggesting that the former exerts a greater influence on work attitudes and behaviour than the latter. They argue that an event is first appraised for relevance to well-being in terms of whether it is positive or negative in nature, and how important it is. This appraisal process produces an initial emotional reaction that occurs very rapidly and varies both in intensity and in valence (positive-negative). In other words, this emotional reaction is a positive or negative feeling that varies in terms of how intensely it is experienced. This process is known as *primary appraisal*. Primary appraisal is consistent with evolutionary psychology theory which posits that emotions have arisen in response to the adaptive problem of coordinating the mind's various specialised functions (Cosmides & Tooby,

2000) Thus, an event significant for well-being would provoke an affective reaction that overrides all other current motivational considerations and produces behaviour adapted to protecting well-being. While both positive and negative events can elicit affective reactions, negative events tend to produce stronger reactions than do positive events, because generally they indicate more pressing concerns for well-being. Primary appraisal is followed by *secondary appraisal*, which involves a more specific evaluation of the event that focuses on making attributions of causality, gathering coping resources, and planning behavioural responses. Discrete emotions such as happiness or anger (as opposed to primary appraisal's general positive or negative feeling) are also experienced. The main purpose of secondary appraisal is to re-evaluate the event after it is no longer a pressing consideration for well-being, in order to initiate action designed to cope with the event. Weiss and Cropanzano (1996) recognise the importance of individuals' affective dispositions in their model, conceptualising them as a moderator of the relationship between work events and individuals' affective reactions to them. According to them, affective traits predispose individuals to have more or less intense positive and/or negative reactions.

In terms of the structure of production, some jobs are disappearing and new ones are being created. Traditionally secure jobs are being displaced by temporary, fixed or short-term contracts (International Labour Organization, 2001). As a result, job insecurity has become a relatively permanent state for an increasing number of employees. It negatively affects attitudes (Ashford et al., 1989; Davy et al., 1997; Rosenblatt et al., 1999; Sverke & Hellgren, 2002), work behaviour, psychological health, and stress levels. The World Health Organization (2005) states that job insecurity harms health even more than unemployment.

Psychological well-being is a complex construct consisting of various dimensions. According to Brodsky (1988), psychological well-being has four specific characteristics, namely, (1) it is subjective and emotional, (2) it is a state as opposed to a continuous part of who we are, (3) it is a product of personal endeavour, and (4) it is more than the absence of negative affect and personal conflict, but comes from moving toward desired

life goals. Brodsky (1988) identifies various antecedents of psychological well-being, such as stress, physical health, work, career paths and work environment. It would appear as if one's job could either bring on illness, or contribute towards good health. Schaufeli and Bakker (2001) suggest that, on the one hand, work requires effort and is associated with negative feelings and a lack of freedom - while, on the other hand, work provides individuals with energy, enables them to develop and generates positive feelings.

In this research, general health is conceptualised by the theory of Goldberg and Hillier (1979), and looks at four concepts, namely, (1) somatic symptoms, (2) anxiety and insomnia, (3) social dysfunction, and (4) severe depression.

Barchiesi (1999) states that there is a clear indication that unemployment is detrimental to health. It creates stress by disturbing a person's sense of identity and self-esteem and by disrupting social networks. McDonough (2000) reports that an analysis of data taken from a Canadian National probability sample conducted in 1994, determined that high levels of job insecurity tended to lower self-rated health and increased distress. The findings of this analysis support one possible mechanism of action whereby job insecurity reduces both the feeling of control over one's environment and the opportunities for positive self-evaluation. In turn, these psychological experiences have deleterious health consequences. Empirical studies have repeatedly found job insecurity to be associated with impaired employee well-being, and it appears that physical health problems and mental distress increase proportionately with the level of job insecurity experienced (Ashford et al, 1989; Lim, 1996; Hartley et al, 1991). The negative impact of job insecurity on health can be largely explained by a combination of pessimism, always being alert, having financial difficulties, lack of support from colleagues and supervisors, lack of control at work and general job dissatisfaction (Ferrie & Marmot, 2001).

In a study conducted by Domenighetti, D'Avanzo & Bisig (2000), it was found that fear of unemployment had a stronger unfavourable effect on health for highly educated employees than for the less educated. In South Africa, however, Viljoen (2005) found no link between general health and qualifications, although she found that general health

levels varied according to culture and tenure. It was found that white South African employees experienced poorer health than black employees, particularly in terms of anxiety and insomnia, social dysfunction and severe depression (Viljoen, 2005). Viljoen's research (2005) indicated that persons working in a government organisation for less than one year demonstrated lower levels of anxiety and insomnia than participants who had worked in the organisation for six years or longer. According to the International Labour Organization (2001), women appear to be more vulnerable to the effects of job insecurity, which can in turn increase exhaustion and impact negatively on home life.

Viljoen (2005) found that affective job insecurity correlates positively with somatic symptoms, anxiety and insomnia and social dysfunction as measured by the General Health Questionnaire (GHQ), indicating that increased feelings of fear of job loss lead to increased physical symptomatology, anxiousness and sleeping difficulties and even impacts on individuals' interpersonal relationships.

Analyses based on a longitudinal British Household Panel Survey also revealed that people *do not* adjust to job insecurity. On the contrary, physical and mental well-being continues to deteriorate the longer employees remain in a state of insecurity (Ferrie & Marmot, 2001). In a South African manufacturing company, the correlations between perceived job insecurity and psychological well-being were examined among 54 white managers in relatively 'safe' jobs, and 78 black production workers in relatively 'unsafe' jobs. It was found that the white managers felt more secure in their jobs, but not less anxious or depressed, than the black production workers. Job insecurity related positively to both anxiety and depression (0,30 to 0,40) in both groups, confirming the benefits of perceived job security to employees, irrespective of whether they felt initially secure or not in their jobs (Orpen, 1993).

It can readily be assumed that employees will react differently to the gradually changing characteristics of employment conditions and jobs (Sverke & Hellgren, 2002). An individual's reaction may depend on a number of factors, such as labour market characteristics, individual characteristics, family responsibility, age and gender. On the

one hand, employees who feel that they could easily obtain work may view the changing nature of work in a positive light. On the other hand, those who hold the economic responsibility for their family, and who feel that they would experience difficulty in finding work, would experience this in a negative manner.

The manner in which individuals appraise and cope with stressful situations is known as sense of coherence (Antonovsky, 1987). Sense of coherence refers to an integrated way of looking at the world in which one lives (Antonovsky, 1993a). Sense of coherence describes a "salutogenic" orientation to life that makes successful coping possible by enabling individuals to learn to use their own resources to their best advantage when dealing with life's challenges (Artinian & Conger, 1997). An individual with a strong sense of coherence would appraise job insecurity as more understandable and manageable (Hauge, 2004). According to Jackson and Rothmann (2001), individuals with a strong sense of coherence should be able to make cognitive sense of the workplace (perceiving its stimulation as clear, ordered, structured, consistent and predictable information). They should also experience their work as consisting of experiences that are bearable (with which they can cope), and as challenges that they can meet by availing themselves of personal resources or resources under the control of legitimate others. Lastly, they should be able to make emotional and motivational sense of work demands as welcome challenges, worthy of engaging and investing their energies in. However, Strümpfer, (1990) states that sense of coherence on its own - without the appropriate abilities, skills, training and development - would be of no avail.

This research will focus on *situational* sense of coherence rather than *dispositional* sense of coherence. Artinian and Conger (1997) define situational sense of coherence as a narrower construct that describes the response that occurs in the period of time in which a client is attempting to deal with a serious life event. Situational sense of coherence measures the integrative potential in a person's understanding of his/her situation, his/her way of looking at the situation, and the ability to gather and use resources.

Situational sense of coherence contains the same three dimensions identified in sense of coherence, but they are defined by Artinian and Conger (1997) to reflect a present,

specific orientation rather than a global orientation. Artinian and Conger (1997) note that comprehensibility refers to the extent to which one perceives the stimuli present in the situational environment as making cognitive sense and being consistent, structured and clear, rather than disordered, random, or inexplicable. Meaningfulness refers to the extent to which one feels that the problems and demands posed by the situation are worth investing time and energy into, rather than viewing them as burdens. Manageability relates to the extent to which one perceives the resources at one's disposal as being adequate to meet the demands posed by the stimuli present in the situation so that one does not feel victimised or treated unfairly (Artinian & Conger, 1997).

Wissing and Van Eeden (2002) found significant differences between the scores of black and white groups on indices of psychological well-being. The black group presented with lower levels of psychological well-being. It should be noted, however, that these differences may result from different socio-cultural backgrounds, idiosyncratic factors, as well as life circumstances. Antonovsky (1979) states that, resistance resources are lower in historically black communities and, as a result of this, people from these groups are more prone to stress and a lower sense of coherence. According to Wissing and Van Eeden (2002), it is generally expected that the new socio-political dispensation (which upholds basic human rights and ensures equality for all) will eventually bring about higher levels of psychological well-being throughout the previously disadvantaged communities. With regard to gender, Hobfoll (1989) is of the opinion that women have less access to resources that could help buffer stress and maintain wellness. Antonovsky (1991) argued that cultural, social and role patterns constructed for men and women - as well as a lack of the socio-economic value of women's contributions to society and the labour market – feature largely in determining females' level of psychological well-being. However, one needs to interpret these findings within the present context of Employment Equity initiatives and the move towards gender equality.

According to Antonovsky (1987), people vary with respect to their "general strain resistance resources". For people with good resources, it is easier to cope successfully with potentially health endangering stressing experiences and to pass them without adverse consequences to health. This theoretical idea is explicated as sense of coherence,

or a person's capacity for manageability, comprehensibility, and meaningfulness. Studies conducted by Larsson and Kallenberg (1996) found that men scored significantly higher on the sense of coherence scale than women. Regarding age, sense of coherence scores increased with increasing age. Bivariate statistics showed that sense of coherence was more strongly related to general well-being and psychological symptoms than to overall physical health and somatic symptoms. Sense of coherence was also more strongly related to health among women than men. Multivariate statistics (separately for men and women) indicated that sense of coherence was more strongly related to the health indicators than age, education and income levels, number of persons in the household, and number of friends.

Suominen, Helenius, Blomberg, Uutela and Koskenvuo (2001) state that a number of cross-sectional population studies have shown that a strong sense of coherence is associated with various aspects of perceived good health. The association does not seem to be entirely attributable to underlying associations of sense of coherence with other variables, such as age or level of education. The result of their study indicates that a strong sense of coherence predicted good health in men and women. Research conducted by Feldt, Kinnunen and Mauno (2000) showed that a good organisational climate and low job insecurity were related to a strong sense of coherence, which was, in turn, linked to a high level of general, as well as occupational, well-being. In addition, employees who experienced changes in organisational climate and leadership relations during the follow-up period, showed changes in sense of coherence which were, in turn, related to changes in the well-being indicators. For this reason, it is perceived that situational sense of coherence may play a mediating role in the relationship between job insecurity and general health. According to Baron and Kenny (1986), a given variable may function as a mediator to the extent that it accounts for the relation between the predictor and the criterion. A mediator explains how external physical events take on internal psychological significance. A strong situational sense of coherence may help prevent stress from turning into potentially harmful tension, which in turn may later develop into health problems (Antonovsky, 1987). Situational sense of coherence can act as a classic

mediator for life stress and, in this context, a mediator for the effects of job insecurity (Hauge, 2004).

Owing to the fact that public and civil service sectors in South Africa have, for many years, been immune to the pressures emanating from the marketplace (Ferrie, 2003), private sector employees have had to come to terms with job insecurity far sooner than public sector employees. As a result, private sector employees have learned to adapt and deal with job insecurity. In 1994, Manksi and Straub (2000) found that, despite the changes occurring in the public service, government employees still tended to feel more secure than their counterparts in the private sector. It is, however, important to note that restructuring only really started taking place in 1994 and, at that stage, not many employees had been affected by the changes. However, many employees have since been retrenched or offered "packages" to leave, and this has increased employees' fears of losing their jobs. Among the main attractions of public sector employment were the offer of a career, job security, and satisfactory conditions of service, which is in stark contrast to their current situation. Accordingly, this researcher is of the opinion that job insecurity levels will probably not be higher among the private sector employees when compared to employees working in the public sector.

Research indicates that a link exists between high levels of job insecurity and ill health (both physical and psychological) and, as such, it is imperative to determine whether any variable mediates the relationship between job insecurity and health. If situational sense of coherence is found to have a mediating effect on the relationship between job insecurity and general health, it will indicate that job insecurity can be managed through training and intervention. Managing job insecurity will equip employees with the necessary skills to cope with their changing circumstances more effectively, and result in a reduced risk of physical and psychological ill health. The information obtained in this study can be used for wellness programmes and will benefit organisations tremendously by providing them with the means to reduce their costs (incurred by employee absenteeism and sick leave). Based on the above problem statement, the following hypotheses are proposed:

- H1: A practically-significant relationship exists between job insecurity and general health, and job insecurity holds predictive value with regard to general health.
- H2: Situational sense of coherence mediates the relationship between job insecurity and general health.
- H3: Practically-significant differences, based on biographical characteristics, exist regarding job insecurity, general health, and situational sense of coherence.
- H4: No significant differences exist in the job insecurity levels of public and private sector employees.

AIM OF THE STUDY

The objectives of this study are to investigate the relationship between job insecurity and general health and also to determine whether sense of coherence mediates this relationship. This research furthermore aims to compare the job insecurity levels of employees in the public and the private sectors.

METHOD

Research design

A cross-sectional survey design was used to reach the objectives of the study. This design can be used to assess interrelationships among variables at one point in time, without any planned intervention. According to Shaughnessy and Zechmeister (1997), this design is ideally suited when the aim of a study is predictive and descriptive by nature.

Participants

A total population of 337 was targeted for this research and a 100% response rate was obtained. Participants consisted of employees from both the public and the private sector, from various educational levels and of various ages. The population includes workers from all levels, ranging from unskilled workers to professionals. The lowest level employees are of a literacy level adequate enough to allow for the valid completion of the questionnaires. The biographical characteristics of the study population are detailed in Table 1.

Table 1
Compilation of the Study Population (N = 337)

Item	Category	Frequency	Percentage
Sector	Public (1)	168	49,9
	Private (2)	169	50,1
	Total	337	100,0
Gender	Male (1)	145	43,0
	Female (2)	192	57,0
	Total	337	100,0
Cultural group	Black (1)	85	25,2
	White (2)	232	68,8
	Other (3)	20	5,9
	Total	337	100,0
Contract	Permanent (1)	276	81,9
	Temporary (2)	27	8,0
	Fixed-term (3)	23	6,8
	Not contractual (4)	11	3,3
	Total	337	100,0
Category	Professional (1)	59	17,5
	Semi-professional (2)	39	11,6
	Skilled (3)	166	49,3
	Semi-skilled (4)	61	18,1
	Unskilled (5)	12	3,6
	Total	337	100,0
Age	24 years and younger (1)	58	17,2
	25 - 35 years (2)	102	30,3
	36 - 45 years (3)	76	22,6
	46 - 55 years (4)	70	20,8
	56 years and older (5)	31	9,2
	Total	337	100,0
Qualification	Std 8-10 (1)	162	48,1
	Diploma (2)	99	29,4
	Degree (3)	39	11,6
	Degree+ (4)	37	11,0
	Total	337	100,0

Tenure	Less than 1 year (1)	63	18,7
	2 - 5 years (2)	94	27,9
	6 – 10 years (3)	55	16,3
	11 – 20 years (4)	75	22,3
	Longer than 20 years (5)	50	14,8
	Total	337	100,0

From Table 1, it is apparent that the study population was more or less equally represented by employees from both the public and the private sectors. Females (57%) slightly outweighed the male population (43%) in this sample. The predominant section of the population was white (68,8%). In terms of work contracts 81,9% of the population was permanent staff members. 49,3% of the population was skilled, while only 17,5% of the population was professionals (registered with a controlling board). The predominant section of the population fell within the age range 25-35 years (30,3%), with only 9,2% of the population being 56 years and older. The majority of the study population had qualifications ranging between Grades 10 and 12, while 29, 4% had at least a Diploma. In terms of years of service offered to a company, the bulk of the study population's tenure ranged between 2 to 5 years of service (27,9%).

Measuring instruments

The following standardised measuring instruments were used in the empirical study:

- The *Job Insecurity Questionnaire (JIQ)* (De Witte, 2000) was used as a measure of job insecurity. The eleven items of the JIQ summarise both the cognitive and affective dimensions of job insecurity and are arranged along a five-point scale, with one (1) being "strongly disagree" and five (5) representing strong agreement. An example of a question relating to cognitive job insecurity would be, "I am sure I can keep my job", whereas an example of a question relating to affective job insecurity would be, "I am worried about keeping my job". The items on the JIQ, measuring global insecurity are reported to have a Cronbach alpha coefficient of 0,92, and both scales (cognitive and affective) were shown to be

highly reliable, with the six scales measuring cognitive job insecurity displaying a Cronbach alpha of 0,90; and the five items of the affective job insecurity scale having a Cronbach alpha coefficient of 0,85 (De Witte, 2000). According to De Witte (2000), the content of these two scales do not overlap but, nevertheless, they show a high underlying correlation ($r = 0,76$; $p < 0,0001$). Labuschagne (2005) obtained an alpha coefficient of 0,79 for the JIQ. Bosman (2005) obtained an alpha coefficient of 0,72 for the affective job insecurity scale and 0,70 for the cognitive subscale.

- The *Orientation to Life Questionnaire – Form S (OLQ-S)* (Antonovsky, 1987) will be used to measure the participant's situational sense of coherence. The OLQ-S (situational form) is new to South Africa and, as such, no reliability and validity statistics are available on it. The reliability and validity statistics of the OLQ (general form) will, therefore, be incorporated into this study. The items of the OLQ-S summarise the manageability, meaningfulness and comprehensibility dimensions of sense of coherence and are arranged along a seven-point scale. An example of a question relating to manageability would be, "In the situation you are in, do you feel that: You can find a solution, or, There is no solution". An example of a question relating to meaningfulness would be, "When you think about the situation you are in, you very often: Feel how good it is to be alive, or, Ask yourself why you exist at all", whereas an example of a question relating to comprehensibility would be, "Do you feel that your feelings and ideas are mixed-up?". After reviewing 29 validity and reliability results of the OLQ, Antonovsky (1993) found the average alpha coefficient to vary between 0,85 and 0,91. Antonovsky (1993) further noted that the test-retest reliability studies indicate coefficients between 0,41 and 0,97. In South Africa, Rothmann, Malan and Rothmann (2001) found Cronbach alpha coefficients varying from 0,73 to 0,85 for the OLQ.
- The *General Health Questionnaire (GHQ)* (Goldberg & Hillier, 1979) will be used to measure psychological well-being. For the purpose of this study, the 28-item version will be used. Responses are given on a 4-point Likert-type scale, with the total scale ranging from 28 to 112. Four subscales measure the degree

of somatic symptoms; anxiety and insomnia; social dysfunction and severe depression. An example of a question relating to somatic symptoms would be, "Felt that you are ill?". An example of a question relating to anxiety and insomnia would be, "Lost much sleep over worry?", whereas an example of social dysfunction would be, "Been managing to keep yourself busy and occupied?". Lastly, an example of a question relating to severe depression would be, "Felt that life is entirely hopeless?". A high score on the GHQ is indicative of a high level of psychological distress, whereas a low score is indicative of a low level of psychological distress. In South Africa, Isaksson and Johansson (2000) obtained Cronbach alpha coefficients of 0,86, and Oosthuizen (2001) obtained a reliability coefficient of 0,89 for the GHQ. Viljoen (2005) obtained an alpha coefficient of 0,76 for the total GHQ, 0,71 for the somatic symptoms subscale, 0,79 for the anxiety and insomnia subscale, 0,74 for the social dysfunction subscale, and 0,80 for the severe depression subscale.

Data analysis

The SPSS programme (SPSS, 2003) was used to carry out the statistical analysis. Cronbach alpha coefficients and inter-item correlation coefficients were used to determine the validity and reliability of the measuring instruments, while descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) were used to analyse data. The Pearson product Moment correlation Coefficient was determined so as to indicate the extent to which one variable is related to another. Effect sizes were used to determine the practical significance of relationships between variables.

Structural Equation Modelling (SEM) methods, as implemented by AMOS (Arbuckle, 1997), were used to test the factorial models for the JIQ, OLQ-S and GHQ. SEM is a statistical method that follows a hypothesis-testing approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2001). In essence, the researcher imposes

the structure of the hypothesised model on the sample data, thereafter testing how well the observed data fit the restricted structure.

Hypothesised relationships were tested empirically for the goodness of fit with the sample data. The χ^2 statistic and several other goodness-of-fit indices, which sum up the degree of correspondence between the inferred (hypothesised) and observed covariance matrices, were used. If used in isolation, the χ^2 statistic can lead to certain limitations, given its sensitivity to sample size. Researchers have addressed the χ^2 limitations by developing goodness-of-fit indexes that take a more pragmatic approach to the evaluation process. One of the first fit statistics to address this problem was the $\chi^2/\text{degrees of freedom}$ ratio (CMIN/DF) (Wheaton, Muthén, Alwin & Summers, 1977), which is the minimum discrepancy per degree of freedom. These criteria, also referred to as "subjective" or "practical" indices of fit, are frequently used as additions to the χ^2 statistic.

The Goodness of Fit Index (GFI) indicates the relative amount of the variance/covariances in the sample predicted by the estimates of the population. The Adjusted Goodness-of-Fit Index (AGFI), which is a measure of the relative amount of variance accounted for by the model, corrected for degrees of freedom in the model relative to the number of variables, was also used. The AGFI differs from the GFI in that the AGFI adjusts for the number of degrees of freedom in the specified model, thus also addressing the issue of parsimony by incorporating a penalty for the inclusion of additional parameters. Both the GFI and AGFI are classified as absolute indexes of fit because they basically compare the hypothesised model with no other model at all (Hu & Bentler, 1999). Both these indexes range from 0 to 1, with values close to 1 (i.e. exceeding 0,9) being considered as indicative of good fit.

The next set of goodness-of-fit statistics can be classified as incremental or comparative indexes of fit. The Normed Fit Index (NFI) is used to assess a global model fit. The NFI, similar to the CFI and TLI, is normed to fall on a 0 to 1 continuum, and is considered to represent the point at which the model under evaluation falls on the scale running from a null model to perfect fit. The Comparative Fit Index (CFI) also compares the

hypothesised and independent models, but takes cognisance of sample size. Although both the NFI and CFI are included in AMOS output, it has been suggested that the CFI should be the index of choice (Bentler, 1990). The Tucker-Lewis Index (TLI) is a relative measure of covariation, explained by the model, which is specifically developed to assess factor models (Tucker & Lewis, 1973). Although a value larger than 0,90 was originally considered representative of a well-fitting model, a revised cut-off value close to 0,95 has been devised (Hu & Bentler, 1999).

As suggested by Browne and Cudeck (1993), the Root Mean Square Error of Approximation (RMSEA), which estimates the overall amount of error in the hypothesised model-data fit relative to the estimated parameters of the model and the 90% confidence interval of the RMSEA, was used. The RMSEA essentially asks how well the model, with unknown but optimally chosen parameters, would fit the population covariance matrix if it were available. Values less than 0,05 represent good fit, and values as high as 0,08 represent reasonable errors of approximation in the population (Browne & Cudeck, 1993).

Regression analyses were carried out to determine the percentage variance in the dependent variable that is predicted by the independent variables, as well as to test whether situational sense of coherence plays a mediating role in the relationship between job insecurity and general health.

RESULTS

Structural equation modelling (SEM) methods were used to test factorial models for the JIQ, OLQ-S and GHQ. Data analyses proceeded as follows: An overview of model fit was done by looking at the overall χ^2 value, together with its degrees of freedom and probability value. Global assessments of model fit were based on several goodness-of-fit statistics (GFI, AGFI, NFI, TLI, CFI and RMSEA). Secondly, based on findings of an ill-fitting initially hypothesised model, analyses proceeded in an exploratory mode. Possible misspecifications (as suggested by the so-called modification indices) were looked for, and eventually a revised, re-specified model was fitted to the data.

Hypothesised model of job insecurity

The full hypothesised 2-factor model, as well as a 1-factor model consisting of all 11 items of the JIQ, was tested. Table 2 presents fit statistics for the test of the various models.

Table 2

Goodness-of-fit Statistics for the JIQ Models

Model	χ^2	χ^2/df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Model 1 (1-factor)	414,71	9,43	0,79	0,68	0,76	0,72	0,78	0,16
Model 1 (2-factor)	404,79	9,41	0,79	0,68	0,76	0,72	0,78	0,16
Model 2 (2-factor)	84,19	2,81	0,95	0,91	0,94	0,94	0,96	0,07

Confirmatory factor analyses

First, a uni-dimensional model which assumes that all 11 items on the JIQ load on one single factor, was tested. Table 2, provides a summary of the fit statistics for the hypothesised one-factor model. This model did not reveal a good overall fit. Although the $\chi^2 = 404,79$ ($df = 43$) was statistically significant, the other fit indices did not indicate a good fit between the model and the data.

Subsequently, a two-factor model consisting of a cognitive and affective subscale was tested. Although a statistically significant $\chi^2 = 404,791$ ($df = 43$) was obtained, the fit indices revealed a relatively poor overall fit of data to the originally hypothesised JIQ model (Model 1).

Exploratory factor analyses

To pinpoint possible areas of misfit, modification indexes were examined. Modification

indexes (MI) demonstrated misspecification associated with the pairing of items 1 and 3, 1 and 5, 1 and 6, 3 and 4, 3 and 10, 3 and 11, 10 and 11, 9 and 11, 6 and 7, and 6 and 9. Upon inspecting the regression weights, it was noted that item 2 ("There is only a small chance that I will become unemployed") delivered a poor estimate and was consequently deleted. A lower statistically significant $\chi^2 = 56,60$ ($df = 24$) and fit indices revealed a good overall fit of the hypothesised JIQ model.

Hypothesised model of situational sense of coherence

The full hypothesised 3-factor model, as well as a 1-factor model consisting of all 12 items of the OLQ-S, was tested. Table 3 presents fit statistics for the test of the various models.

Table 3

Goodness-of-fit Statistics for the OLQ-S Models

Model	χ^2	χ^2/df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Model 1 (1-factor)	209,98	3,88	0,91	0,87	0,73	0,73	0,78	0,09
Model 1 (3-factor)	198,39	3,89	0,91	0,86	0,74	0,73	0,79	0,09
Model 2 (3-factor)	43,24	1,44	0,98	0,96	0,92	0,96	0,97	0,04

Confirmatory analyses

First, a uni-dimensional model, which assumes that all 12 items on the OLQ load on one single factor, was tested. Table 3, provides a summary of the fit statistics for the hypothesised one-factor model. This model did not reveal a good overall fit. Although the $\chi^2 = 209,98$ ($df = 54$) was statistically significant, the other fit indices did not indicate a good fit between the model and the data.

Next, the original three-factor model, consisting of manageability, meaningfulness and comprehensibility subscales, was tested for goodness of fit. The statistically significant $\chi^2 = 198,39$ ($df = 51$) and fit indices revealed a poor overall fit of the originally

hypothesised 3-factor OLQ-S model, although the 1-factor model resulted in an even poorer fit.

Exploratory analyses

To pinpoint possible areas of misfit, modification indexes (MI) were examined. Looking at the regression weights, items 7 and 9 demonstrated comparatively low values. The standardised residual covariances confirmed the problematic nature of these items, with a loading higher than 2,85. Consequently, it was decided to re-specify the model with these items deleted, resulting in Model 2. The errors of items 3 and 5 ($MI = 13,66$), as well as items 3 and 10 ($MI = 8,75$), were allowed to correlate due to the high covariance associated with these errors. A lower statistically-significant $\chi^2 = 43,24$ ($df = 30$) and fit indices revealed a good overall fit of the hypothesised OLQ-S model.

Hypothesised model of general health

The full hypothesised 4-factor model, as well as a 1-factor model consisting of all 28 items of the GHQ, was tested. Table 4 presents fit statistics for the test of various models.

Table 4

Goodness-of-fit Statistics for the GHQ Models

Model	χ^2	χ^2/df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Model 1 (1-factor)	2166,41	6,19	0,62	0,56	0,56	0,56	0,60	0,12
Model 1 (4-factor)	1204,55	3,50	0,79	0,76	0,75	0,79	0,80	0,08
Model 2 (4-factor)	290,78	1,82	0,92	0,90	0,90	0,94	0,95	0,05

Confirmatory analyses

A uni-dimensional model, which assumes that all 28 items on the GHQ load on one single factor, was tested initially. Table 3, provides a summary of the fit statistics for the hypothesised one-factor model. This model did not reveal a good overall fit. Although

the $\chi^2 = 2166,41$ ($df = 350$) was statistically significant, the other fit indices indicated poor fit between the model and the data.

Next, the originally hypothesised four-factor model was tested. The statistically-significant $\chi^2 = 1204,55$ ($df = 344$) and fit indices revealed a poor overall fit of the originally hypothesised 4-factor GHQ model.

Exploratory Analyses

To pinpoint possible areas of misfit, modification indexes (MI) were examined. Items A6, A7, B1, C7, D1, D2, D4 and D5 proved to be problematic, either loading on the wrong factor or delivering standardised residual covariances falling above 2,85. Consequently, these items were removed, resulting in much improved fit with $\chi^2 = 290,78$ ($df = 160$) and goodness of fit indices adhering to the recommended cut-off points. Additionally, items A2 and D7 as well as B5 and C3, were allowed to correlate due to the comparatively high covariance associated with these errors.

Descriptive statistics, Cronbach alpha coefficients and the inter-item correlation coefficients of the JIQ, OLQ-S and GHQ for employees ($N = 337$) working in the public and private sectors, are reported in Table 5.

Table 5

Descriptive Statistics, Cronbach Alpha Coefficients and Inter-Item Correlation Coefficients of the Measuring Instruments

Test and subscales	N	Mean	SD	Skewness	Kurtosis	Inter-item r	α
JIQ-Total	337	2,36	0,78	0,29	-0,45	0,41	0,88
JIQ-Affective	337	2,20	0,79	0,56	0,15	0,43	0,80
JIQ-Cognitive	337	2,52	0,89	0,11	-0,64	0,44	0,79
GHQ-Total	337	1,77	0,43	0,86	1,23	0,28	0,89
GHQ-Somatic	337	1,92	0,65	0,67	-0,17	0,50	0,83
GHQ-Anxiety	337	1,86	0,67	0,76	0,20	0,53	0,87
GHQ-Social	337	1,84	0,45	0,63	2,02	0,35	0,76
GHQ-Severe Depression	337	1,19	0,43	3,01	10,46	0,47	0,72
OLQ-S	337	4,64	0,97	-0,15	-0,13	0,22	0,77

Table 5 shows that acceptable Cronbach alpha coefficients were obtained on all the measuring instruments, as well as their subscales (Nunnally & Bernstein, 1994). All of the inter-item correlation coefficients were acceptable (Clark & Watson, 1995). Scores on all the dimensions seem to be distributed normally (skewness and kurtosis were smaller than one), with the exception of the severe depression subscale, which was high (10,46) and the kurtosis of the total score of the *GHQ*, which fell marginally above 1.

Next, MANOVA and ANOVA analyses followed to determine the relationship between the scores and the measuring instruments and various demographic characteristics, such as age, qualification, gender, culture, sector and tenure, the results of which are reported in Table 6.

Table 6

MANOVA – *Differences in Job Insecurity levels of Demographic Groups*

Variable	Value	<i>F</i>	<i>Df</i>	Error <i>df</i>	<i>p</i>	Partial eta squared
Age	0,96	1,54	8	662	0,142	0,02
Qualification	0,97	1,64	6	664	0,133	0,02
Gender	0,99	0,27	2	334	0,767	0,00
Culture	0,98	1,49	4	666	0,204	0,01
Sector	0,98	3,95	2	334	0,020*	0,02
Tenure	0,97	1,14	8	662	0,335	0,01

* Statistically significant difference: $p < 0,05$

Table 6 shows that there were no significant effects of age, qualification, gender, culture, or tenure on the combined dependent variable, job insecurity. A statistically significant effect of sector on job insecurity was, however, found ($F_{(2,334)} = 3,95$, $p < 0,05$; Wilk's Lambda = 0,98; partial eta squared = 0,02). This effect was small (2% of the variance explained). Analysis of each individual dependent variable, using a Bonferroni-adjusted alpha level of 0,005, showed that the groups differed in terms of the level of affective job insecurity ($F_{(1,335)} = 7,743$, $p < 0,05$, partial $\eta^2 = 0,02$). Statistically-significant differences were found between the mean affective job insecurity scores of the public and the private

sector employees, where the public sector employees obtained a higher mean affective job insecurity score compared to the private sector employees.

Table 7

MANOVA – *Differences in General Health levels of Demographic groups*

Variable	Value	F	Df	Error df	P	Partial eta squared
Age	0,94	1,29	16	1002,69	0,195	0,02
Qualification	0,98	0,44	12	870,74	0,948	0,01
Gender	0,97	2,91	4	331	0,022*	0,03
Culture	0,89	5,11	8	660	0,000*	0,06
Sector	0,98	1,64	4	331	0,164	0,02
Tenure	0,94	1,21	16	1002,69	0,255	0,01

* Statistically significant difference: $p < 0,05$

Table 7 shows that there was a significant effect of gender on the combined dependent variable, general health ($F_{(4,331)} = 2,91$, $p < 0,05$; Wilk's Lambda = 0,97; partial eta squared = 0,03). This effect was small (3% of the variance explained). Analysis of each individual dependent variable, using a Bonferroni-adjusted alpha level of 0,005, showed that the groups differed in terms of the level of social dysfunction ($F_{(1, 334)} = 8,22$, $p < 0,05$, partial $\eta^2 = 0,02$), as well as their anxiety and insomnia ($F_{(1, 334)} = 7,34$, $p < 0,05$, partial $\eta^2 = 0,02$). Results suggested that females demonstrated higher dysfunction than males with regard to the social dysfunction and anxiety and insomnia dimensions.

Table 7 also shows that there was a significant effect of culture on the combined dependent variable, general health ($F_{(8,660)} = 5,11$, $p < 0,01$; Wilk's Lambda = 0,89; partial eta squared = 0,06). This effect was small (6% of the variance explained). Analysis of each individual dependent variable, using a Bonferroni-adjusted alpha level of 0,005, showed that the groups differed in terms of the level of Social Dysfunction ($F_{(2, 333)} = 8,40$, $p < 0,01$, partial $\eta^2 = 0,05$). Statistically-significant differences were found between the mean social dysfunction scores of the black and the white cultural groups, as well as between the 'other' and black cultural groups. The 'other' category

displayed a statistically-significant higher level of social dysfunction as compared to the black cultural group, and the white cultural group also displayed a statistically-significant higher level of social dysfunction as compared to the black cultural group. The groups also differed in terms of their levels of somatic symptoms ($F_{(2, 333)} = 4,71, p < 0,01$, partial $\eta^2 = 0,03$). Statistically-significant differences were found between the mean somatic symptoms scores of the black and the white groups, as well as the 'other' and black cultural groups. The 'other' category displayed a statistically-significant higher level of somatic symptoms as compared to the black cultural group, and the white cultural group also displayed a statistically-significant higher level of somatic symptoms as compared to the black cultural group.

Table 8
ANOVA – *Differences in Situational Sense of Coherence levels of Demographic Groups*

Variable	Sum of squares	Df	Mean Square	F	p	Partial eta squared
Age	5,964	4	1,49	1,60	0,174	0,02
Qualification	1,575	3	0,53	0,56	0,644	0,01
Gender	0,602	1	0,60	0,64	0,424	0,00
Culture	1,247	2	0,62	0,66	0,516	0,00
Sector	3,503	1	3,50	3,76	0,053	0,01
Tenure	3,618	4	0,90	0,96	0,428	0,01

* Statistically significant difference: $p < 0,05$

Table 8 shows that there were no significant effects of age, qualification, gender, culture, sector or tenure on situational sense of coherence levels.

The correlation coefficients between the JIQ, OLQ-S and GHQ for employees in the public and private sectors are reported in Table 9.

Table 9

Correlation Coefficients between the JIQ, OLQ-S and GHQ

	1	2	3	4	5	6	7	8	9
1. JI Cog		0,73++*	0,94++*	-0,38+*	0,34+*	0,26*	0,29*	0,27*	0,13*
2. JI Aff			0,92++*	-0,40+*	0,35+*	0,26*	0,28*	0,32+*	0,15*
3. JI Total				-0,42+*	0,37+*	0,28*	0,31+*	0,31+*	0,15*
4. SSOC					-0,44+*	-0,30+	-0,41*	-0,33+	-0,28*
5. GHQ Total						0,82++*	0,88++*	0,70++*	0,47+*
6. GHQ Som Sym							0,62++*	0,39+*	0,26*
7. GHQ Anx/Ins								0,45+*	0,31+*
8. GHQ Soc Dys									0,22*
9. GHQ Sev Dep									

*Statistically significant $p \leq 0,01$ + Correlation is practically significant $r \geq 0,30$ (medium effect)++ Correlation is practically significant $r \geq 0,50$ (large effect)

As indicated by Table 9, both job insecurity subscales demonstrated a practically-significant relationship of medium effect with the total score of the GHQ. The relationships between both job insecurity subscales and the somatic symptoms scale, as well as the anxiety and insomnia scale, fell marginally below the medium effect cut-off point - as did the relationship between cognitive job insecurity and social dysfunction. A practically-significant correlation of medium effect was found between affective job insecurity and social dysfunction.

Table 9 demonstrates that a practically-significant negative correlation of medium effect was obtained between affective job insecurity and situational sense of coherence. This correlation indicates that within the study population, employees with high levels of affective job insecurity displayed lower sense of coherence and vice versa. A positive correlation of medium effect was found between affective job insecurity and the social dysfunction scale of the GHQ. Increased affective job insecurity is thus related to increased social dysfunction.

A practically-significant negative correlation of medium effect was also obtained between cognitive job insecurity and situational sense of coherence. This correlation

indicates within the study population that employees with high levels of cognitive job insecurity displayed lower sense of coherence and vice versa. A positive correlation of medium effect was found between cognitive job insecurity and the total score of the GHQ; which suggests that high levels of cognitive job insecurity are associated with ill health.

A practically-significant negative correlation of medium effect was obtained between situational sense of coherence and the total score of the general health questionnaire (as well as the somatic symptoms, anxiety and insomnia, and social dysfunction subscales). It can therefore be concluded that participants with a high sense of coherence displayed higher levels of general health, as displayed by decreased somatic symptomatology, anxiety and insomnia, and social dysfunction (and to some extent severe depression, given that the correlation was found to fall slightly below the medium effect cut-off point).

Next, a series of multiple regression analyses were performed to test whether job insecurity (as measured by the JIQ) predicted general health (as measured by the GHQ), and to test whether situational sense of coherence (as measured by the OLQ-S) mediates the relationship between job insecurity and the dependent variables. Baron and Kenny (1986) recommend three steps in order to test for mediation. According to these authors, beta coefficients of different regression equations must be compared. Firstly, the mediator should be predicted by the independent variable. Secondly, the dependent variable should be predicted by the mediator and the independent variable and, lastly, the dependent variable should be regressed on the independent variable controlling for the mediator. If all steps prove significant, perfect mediation holds when, controlling for the mediator, the independent variable does not predict the dependent variable.

The possible mediating role of situational sense of coherence in the relationship between job insecurity and general health (somatic symptoms) was investigated (Refer to Table 10). Firstly, support for the first criterion set by Baron and Kenny (1986) was shown when a regression analysis with job insecurity as dependent variable and situational sense

of coherence as independent variable was conducted. Secondly, a regression analysis with job insecurity as independent variable and somatic symptoms (GHQ) as dependent variable resulted in a statistically-significant F-value ($F = 28,90$, $p < 0,0001$). Regression analyses with somatic symptoms (GHQ) as dependent variable and situational sense of coherence as predictor also showed statistically-significant results ($F = 22,20$, $p < 0,0001$). These results provide support for the second criterion of Baron and Kenny (1986) and, lastly, in order to test adherence to the third criterion, somatic symptoms were regressed on job insecurity controlling for situational sense of coherence - the results of which are provided in Table 10.

Table 10

Regression Analysis – Total Job Insecurity and Situational Sense of Coherence: Somatic Symptoms (GHQ)

ANALYSIS OF VARIANCE					
Model 1: Total job insecurity					
R : 0,28	Source of variation	Df	Sum of	Mean	
R^2 : 0,08			squares	Square	
Adjusted R^2 : 0,08	Regression	1	11,20	11,20	
	Residual	335	129,83	0,39	
	$F = 28,90 \quad p = 0,000$				
Model 2: Total job insecurity and situational sense of coherence					
	Source of variation	Df	Sum of	Mean	
R : 0,34			squares	Square	
R^2 : 0,12	Regression	2	16,54	8,27	
Adjusted R^2 : 0,11	Residual	334	124,50	0,40	
	$F = 22,20 \quad p = 0,000$				
VARIABLES IN THE EQUATION					
INDEPENDENT VARIABLES	B	SEB	Beta	t	p
Total job insecurity	0,24	0,04	0,30	5,40	0,000*
Total job insecurity	0,20	0,05	0,20	3,40	0,001*
SSOC	-0,14	0,04	-0,21	-3,80	0,000*

* Statistically significant difference: $p < 0,05$

From Table 10 it is evident that although the regression coefficient of total job insecurity remains statistically-significant upon inclusion of situational sense of coherence, the standardised regression coefficient (beta) of job insecurity decreases upon controlling for situational sense of coherence (Model 2). Based upon Baron and Kenny's (1986) third criterion, which states that perfect mediation would be applicable when the independent variable does not predict the dependent variable when controlling for the mediator, perfect mediation does not apply in this case. Given the reduction in the standardised regression coefficient of job insecurity upon inclusion of the situational sense of coherence scale, it would appear as if situational sense of coherence partially mediates the effect of job insecurity on somatic symptoms (as measured by the GHQ). Job insecurity predicted 8% of the variance in somatic symptoms (as measured by the GHQ), which increases to 11% when combined with situational sense of coherence.

Next, the potential mediating role of situational sense of coherence in the relationship between job insecurity and anxiety and insomnia (as measured by the GHQ) was investigated (Refer to Table 12). Firstly, support for the first criterion set by Baron and Kenny (1986) was shown when a regression analysis with job insecurity as dependent variable and situational sense of coherence as independent variable was conducted. Secondly, a regression analysis with total job insecurity as independent variable and anxiety and insomnia (GHQ) as dependent variable resulted in a statistically significant F -value ($F = 34,66, p < 0,0001$). Regression analyses with anxiety and insomnia (GHQ) as dependent variable and situational sense of coherence as a predictor also showed statistically significant results ($F = 11,93, p < 0,0001$). These results provide support for the second criterion of Baron and Kenny (1986). To examine adherence to the third criterion, anxiety and insomnia (as measured by the GHQ) were regressed on job insecurity controlling for situational sense of coherence - the results of which are provided in Table 11.

Table 11

Regression Analysis – Total Job Insecurity and Situational Sense of Coherence: Anxiety and Insomnia (GHQ)

ANALYSIS OF VARIANCE					
Model 1: Total job insecurity					
R: 0,31	Source of variation	df	Sum of	Mean	
R ² : 0,09			squares	Square	
Adjusted R ² : 0,09	Regression	1	14,08	14,08	
Standard Error: 0,64	Residual	334	135,66	0,41	
F = 34,66 p = 0,000					
Model 2: Total job insecurity and Situational sense of coherence					
	Source of variation	df	Sum of	Mean	
R: 0,43			squares	Square	
R ² : 0,19	Regression	2	27,92	13,96	
Adjusted R ² : 0,18	Residual	333	121,82	0,37	
F = 11,93 p = 0,000					
VARIABLES IN THE EQUATION					
INDEPENDENT VARIABLES	B	SEB	Beta	T	p
Total job insecurity	0,26	0,05	0,31	5,89	0,000*
Total job insecurity	0,14	0,05	0,17	3,03	0,003*
SSOC	-0,23	0,04	-0,34	-6,15	0,000*

* Statistically significant difference: $p < 0,05$

From Table 11, it is evident that although the regression coefficient of job insecurity remains statistically significant upon inclusion of situational sense of coherence, the standardised regression coefficient (beta) of total job insecurity decreases when controlling for situational sense of coherence. Based upon Baron and Kenny's (1986) third criterion, which states that perfect mediation would be applicable when the independent variable does not predict the dependent variable when controlling for the mediator, perfect mediation does not apply in this case. However, given the reduction in the standardised regression coefficient (beta) of total job insecurity upon inclusion of situational sense of coherence, it does appear as though proof does exist for a partially mediating effect of situational sense of coherence on the relationship between job

insecurity and general health (i.e. anxiety). Job insecurity predicted 9% of the variance in anxiety, which increased to 18% when combined with situational sense of coherence.

Finally, the possible mediating role of situational sense of coherence in the relationship between job insecurity and general health (social dysfunction) was investigated (Refer to Table 12). Firstly, support for the first criterion set by Baron and Kenny (1986) was shown when the regression analysis with job insecurity as dependent variable and situational sense of coherence as independent variable was conducted. Secondly, a regression analysis with total job insecurity as independent variable and social dysfunction (GHQ) as dependent variable resulted in a statistically significant F-value ($F = 54,43, p < 0,0001$). Regression analyses with social dysfunction (GHQ) as dependent variable and situational sense of coherence as predictor also showed statistically-significant results ($F = 40,87, p < 0,0001$). These results provide support for the second criterion of Baron and Kenny (1986). Lastly, in order to test adherence to the third criterion, social dysfunction was regressed on job insecurity controlling for situational sense of coherence - the results of which are provided in Table 12.

Table 12

Regression Analysis – Total Job Insecurity and Situational Sense of Coherence: Social Dysfunction (GHQ)

ANALYSIS OF VARIANCE					
Model 1: Total job insecurity					
<i>R</i> : 0,31	Source of variation	<i>df</i>	Sum of	Mean	
<i>R</i> ² : 0,10			squares	Square	
Adjusted <i>R</i> ² : 0,10	Regression	1	6,60	6,60	
	Residual	335	60,81	0,18	
	<i>F</i> = 54,43 <i>p</i> = 0,000				
Model 2: Total job insecurity and situational sense of coherence					
	Source of variation	<i>df</i>	Sum of	Mean	
<i>R</i> : 0,40			squares	Square	
<i>R</i> ² : 0,15	Regression	2	9,84	4,92	
Adjusted <i>R</i> ² : 0,14	Residual	334	57,52	0,17	
<i>F</i> = 40,87 <i>p</i> = 0,000					
VARIABLES IN THE EQUATION					
INDEPENDENT VARIABLES	B	SEB	Beta	<i>t</i>	<i>P</i>
Total job insecurity	0,18	0,03	0,31	6,01	0,000*
Total job insecurity	0,12	0,03	0,21	3,80	0,000*
SSOC	-0,11	0,03	-0,24	-4,37	0,000*

* Statistically significant difference: *p* < 0,05

Table 12 indicates that although the regression coefficient of total job insecurity remains statistically-significant after including situational sense of coherence, the standardised regression coefficient (beta) of total job insecurity decreases when controlling for situational sense of coherence. Perfect mediation does not apply in this case, although (based on the reduction in the standardised regression coefficient of total job insecurity upon inclusion of situational sense of coherence) proof does exist for the partially-mediating effect of situational sense of coherence on the relationship between job insecurity and social dysfunction (as measured by the GHQ). In itself, total job insecurity predicts 10% of the variance in social dysfunction, which increases to 14% when combined with situational sense of coherence.

The above findings indicate that job insecurity contributes directly toward anxiety and insomnia, somatic symptoms and social dysfunction. The relationships between total job insecurity and anxiety, somatic symptoms, as well as social dysfunction, are, however, partially mediated by situational sense of coherence.

DISCUSSION

The aim of this study was to investigate the relationship between job insecurity and general health, and to determine whether situational sense of coherence mediates the relationship between job insecurity and general health. It was further aimed at comparing the job insecurity levels of public and private sector employees.

Structural equation modelling results confirmed the two-dimensional structure of the JIQ, although deletion of Item 2 and allowing Items 1 and 3, 1 and 5, 1 and 6, 3 and 4, 3 and 10, 3 and 11, 10 and 11, 9 and 11, 6 and 7, and 6 and 9 to correlate, resulted in a better fit. The deletion of Item 2 ("There is only a small chance that I will become unemployed") is consistent with previous research (Bosman, 2005). A possible reason for the problematic nature of Item 2 may be the ambiguous nature of the question itself. Reformulation of this item may be required in future South African studies using the JIQ. Regarding the OLQ-S, poor fit was obtained initially. Deletion of Items 7 and 9 resulted in a better fit, as well as allowing Items 3 and 5, and 3 and 10 to correlate. This is a new questionnaire and these items may require reformulation in order to make the questionnaire more suitable to the South African context. Regarding the GHQ, Items A6 ("Been getting a feeling of tightness or pressure in your head"), A7 ("Been having hot or cold spells"), B1 ("Lost much sleep over worry"), C7 ("Been able to enjoy your normal day-to-day activities"), D1 ("Been thinking of yourself as a worthless person"), D2 ("Feel that life is entirely hopeless"), D4 ("Thought of the possibility that you might do away with yourself") and D5 ("Found at times you couldn't do anything because your nerves were too bad") loaded on the wrong factor, and deletion of these items resulted in a good fit. The errors of items A2 and D7, as well as B5 and C3, were allowed to correlate. Viljoen (2005) found that Item B5 loaded on the wrong factor.

Both job insecurity scales presented with adequate internal consistency. Inter-item correlations of the job insecurity scale and both its subscales were adequate. The total GHQ and its four subscales presented good inter-item correlations and internal consistency. The total OLQ-S presented with a reliability coefficient of 0,77, and an acceptable inter-item correlation - however, its subscales proved unreliable. For this reason, only the total situational sense of coherence scale was used in subsequent analyses.

Pearson product moment correlation coefficients indicated that increased levels of job insecurity are associated with ill health (somatic symptoms, anxiety and insomnia, and social dysfunction). Regression analyses also indicated that job insecurity holds predictive value with regard to somatic symptoms, anxiety and insomnia, and social dysfunction - thus providing support for the first hypothesis, which states that a practically-significant relationship exists between job insecurity and general health, and that job insecurity holds predictive value with regard to general health. This concurs with Viljoen's research (2005) in a South African government organisation. This finding also corresponds with the research findings of Hellgren and Sverke (2003), who found empirical support for the theoretical notion that job insecurity leads to health complaints.

Total job insecurity, as well as both the cognitive and affective subscales, demonstrated a negative association with situational sense of coherence (employees with high levels of job insecurity demonstrated lower sense of coherence and vice versa). Increased levels of situational sense of coherence demonstrated an association with good health. This concurs with the findings of Nilsson, Holmgren and Westman (2000). Regression analyses confirmed the partially mediating effect of situational sense of coherence on the relationship between job insecurity and general health, thus lending only partial support to the second hypothesis. Employees who experience job insecurity (both affective and cognitive) tend to experience an increase in somatic symptoms, anxiety and insomnia, and social dysfunction. They, however, also suffer a reduction in their situational sense of coherence levels, which further contributes to decreased general health (i.e. ill health).

Contrary to expectation, no significant differences were found in the job insecurity levels of different age, qualification, gender, culture, or tenure groups. In terms of the general health of the participants, practically-significant differences were found in the general health levels of participants of different genders and from different cultures. Females demonstrated higher levels of ill health (especially with regard to social dysfunction and anxiety and insomnia dimensions) than men. The International Labour Organization (2001) found that women appear to be more vulnerable to the effects of job insecurity, which can in turn increase exhaustion and impact negatively on home life. Regarding culture, the 'other' and the white categories displayed a statistically-significant higher level of social dysfunction as compared to the black cultural group. A similar relationship was established with regard to the somatic symptoms subscale, with the white and 'other' groups again demonstrating poorer health. Similarly, Viljoen (2005) found that white South African employees experienced poorer health than black employees, particularly in terms of anxiety and insomnia, social dysfunction and severe depression. No relationship was found to exist between situational sense of coherence, age, qualification, culture, sector or tenure. These findings lend partial support to hypothesis 3.

Job insecurity levels were found to differ in terms of sector (i.e. public or private). It was found that public sector employees experience slightly higher levels of affective job insecurity than their private sector counterparts. (It was stated previously that no dramatic difference was currently expected between the job security levels of the public and private sectors - as opposed to the past, when public sector employees were typically more secure than their private sector counterparts). Hypothesis 4 is accordingly rejected. This finding is nevertheless significant, given the fact that public sector employees' job insecurity was found to be higher than that of the private sector employees, which, as expected, is in contrast with previous and older research.

LIMITATIONS AND RECOMMENDATIONS

The deletion of items from the JIQ, OLQ-S and GHQ for reasons of model-fit improvement resulted in the sacrifice of model parsimony, i.e. relationships have been eliminated, which could be viewed as erosion in the meaning of the job insecurity construct. The correlated errors present another dilemma in the study. In most cases, the specification of correlated error terms for purposes of model fit improvement is not an acceptable practice. Aish and Jöreskog (1990) state that correlated error terms in measurement models are representative of systematic, rather than random, measurement error in item responses and may derive from characteristics unique to either the items or respondents, e.g. a high degree of overlap in item content or social desirability. Bentler and Chou (1987) are of the opinion that the specification of a model that forces error parameters to be uncorrelated is rarely appropriate with "real" data. It was for this reason that correlated errors were permissible in this study.

The sample was not ideally representative as it was rather unbalanced in terms of culture, with 232 white participants, 85 black participants, and merely 20 'other' participants. Stratified random sampling could ensure better representation of the different groups. More research is required regarding the validity of the OLQ-S and GHQ in the South African context, also investigating the cultural equivalence of these two measuring instruments. The deletion of the second item of the JIQ is consistent with the findings of Bosman (2005) and may therefore suggest that it may be beneficial to reconsider the phrasing of the item in future studies, for example, from "There is only a small chance that I will become unemployed" to "It is unlikely that I will become unemployed".

All data referred to in this study were obtained by means of self-report scales, which limit the generality of the findings to some extent. Self-report questionnaires increase the likelihood that at least part of the shared variances between measures could be attributed to method variance (Schauefeli, Enzmann & Girault, 1993). Regarding the research design, a cross-sectional design was used in this study, however future research might benefit from the use of longitudinal studies in order to make causal interpretations.

Although the job insecurity levels of the study population do not appear to be excessively high, it would still be useful to examine possible interventions to reduce or combat these levels (particularly given its negative impact on general health, as well as other strain-outcomes). De Witte (in press) notes that the negative consequences of job insecurity can be avoided, or at least mitigated, through the reduction of unpredictability and uncontrollability. This can be achieved in three ways - communication, participation in decision-making, and increasing organisational justice. De Witte (in press) notes that job insecurity is stimulated by a lack of communication about future events and that open, honest and early communication increases the predictability and controllability of future events. Participation in the decision-making process also serves to heighten the predictability of events and, together with communication, strengthens the perception that employees are treated fairly by the employer (i.e. the perception of organisational justice).

Given that situational sense of coherence was found to partially mediate the relationship between job insecurity and general health, an increase in situational sense of coherence levels could alleviate some of the negative consequences of job insecurity for general health levels. Addressing the three identified components with regard to situational sense of coherence (i.e. comprehensibility, manageability and meaningfulness) would be required in this regard. According to Antonovsky (1987), manageability within the workplace refers to experiences of an appropriate load balance and being provided with adequate resources such as knowledge, skills, materials, and equipment. Meaningfulness in the workplace might, for example, be affected by participation in decision-making, and comprehensibility could be obtained by ensuring that employees experience their work description as clearly structured and consequential and understand where their work role fits into the overall work pattern. Organisations can contribute to the development of employees' sense of coherence by giving information in a consistent, structured, ordered and understandable format. Employees should further be able to identify their roles within the greater whole and, as such, the comprehensibility component of sense of coherence will be enhanced (International Labour Organization, 2001).

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

Chapter 3 presents a discussion on the results of the research. In this chapter, conclusions regarding the literature study and the results of the empirical research will be made. Shortcomings of the research will be discussed, and recommendations for organisations and future research will be provided.

3.1 CONCLUSIONS

Conclusions regarding the specific theoretical objectives and the results of the empirical research will be made.

3.1.1 Conclusions regarding the specific theoretical objectives

In line with the first specific objective stated in Chapter 1, job insecurity, general health and situational sense of coherence, as well as the relationship between these constructs, were conceptualised from literature.

Job insecurity was conceptualised from literature as being an employee's negative feelings towards changes relating to his/her job. Firstly, job insecurity is a subjective experience or perception. Secondly, it refers to uncertainty about the future. Lastly, doubts concerning the continuation of the job, as such, are central to job insecurity (Van Vuuren, 1990). For the purpose of this study, the global two-dimensional perspective of job insecurity was adopted. This concept signifies the threat of job loss or job discontinuity and is concerned with the threats of imminent job loss. The cognitive dimension relates to the perceived *likelihood* of job loss, as experienced by an employee. The affective dimension revolves around the *fear* of job loss.

General health was conceptualised as consisting of four dimensions, namely, (1) somatic symptoms, (2) anxiety and insomnia, (3) social dysfunction, and (4) severe

depression. It encompasses both physical and psychological well-being. Psychological well-being is a complex construct consisting of four specific characteristics, namely, (1) it is subjective and emotional, (2) it is a state as opposed to a continuous part of who we are, (3) it is a product of personal endeavour, and (4) it is more than the absence of negative affect and personal conflict, but comes from moving toward desired life goals (Brodsky, 1988). Literature indicates that work can lead to illness, as well as good health. On the one hand, work requires effort and is associated with negative feelings and a lack of freedom while, on the other hand, work gives energy, enables development and generates positive feelings.

Situational sense of coherence was defined as a construct that describes the response that occurs in the period of time in which a client is attempting to deal with a serious life event. Situational sense of coherence measures the integrative potential in a person's understanding of his/her situation, his/her way of looking at the situation, and the ability to gather and use resources (Artinian & Conger, 1997).

A literature review indicated that a negative relationship has been found to exist between job insecurity and situational sense of coherence, i.e. that employees with high levels of job insecurity tend to display lower sense of coherence. A literature review indicated the existence of a further relationship – between job insecurity and general health. Employees experiencing job insecurity tend to demonstrate higher levels of ill health. Empirical studies have repeatedly found job insecurity to be associated with impaired employee well-being, and it appears that physical health problems and mental distress increase proportionately with the level of job insecurity experienced (Ashford, Lee & Bobko, 1989; Lim, 1996; Hartley, Jacobson, Klandermans, & Van Vuuren, 1991). The negative impact of job insecurity on health can be largely explained by a combination of pessimism, always being alert, having financial difficulties, lack of support from colleagues and supervisors, lack of control at work and general job dissatisfaction (Ferrie & Marmot, 2001).

Feldt, Kinnunen and Mauno (2000) found that low job insecurity was related to strong sense of coherence which was, in turn, linked to a high level of general, as well as occupational, well-being. For this reason, it was perceived that situational sense of coherence may play a mediating role in the relationship between job insecurity and general health. In other words, job insecurity may negatively affect situational sense of coherence, which in turn affects general health levels.

3.1.2 Conclusions regarding the specific empirical objectives

Statistical analyses confirmed the internal consistency of the three measuring instruments employed. However, one item of the JIQ was removed, and the errors of nine items were correlated in order to obtain improved fit. Regarding the OLQ-S, two items were deleted and the errors of three items were allowed to correlate so as to obtain a better fit. In terms of the GHQ, poor fit was obtained initially and deletion of eight items and allowing four items to correlate resulted in improved fit.

The second objective was to determine the relationship between job insecurity, sense of coherence and general health of public and private sector employees. Pearson product moment correlation coefficients indicated that increased levels of job insecurity were associated with increased levels of somatic symptoms, anxiety and insomnia, and social dysfunction. Although job insecurity (and both subscales) was significantly related to increased levels of severe depression (statistically), this relationship was not significant in terms of practical significance. Hellgren and Sverke (2003) found empirical support for the theoretical notion that job insecurity leads to health complaints. Total job insecurity, as well as both the cognitive and affective subscales, demonstrated a negative association with situational sense of coherence (employees with high levels of job insecurity demonstrated lower sense of coherence and vice versa). Increased levels of situational sense of coherence demonstrated a practically-significant association with good health, as displayed in somatic symptoms, anxiety and insomnia, and social dysfunction. This concurs with the findings of Nilsson, Holmgren and Westman (2000). The relationship

between situational sense of coherence and severe depression was statistically-significant and fell marginally below the practically-significant cut-off point.

The third objective was to determine whether situational sense of coherence mediates the relationship between job insecurity and general health. It was found that a relationship exists between job insecurity and general health, and that situational sense of coherence does, in fact, partially mediate this relationship. Employees who experience job insecurity (both affective and cognitive) tend to experience higher levels of somatic symptoms, anxiety and insomnia, as well as social dysfunction. This concurs with Viljoen's findings (2005). Job insecurity, however, also leads to lower situational sense of coherence, which contributes to decreased general health (i.e. ill health).

The fourth specific objective was to determine whether public and private sector employees differ in terms of their levels of job insecurity. No recent South African research exists to confirm that differences between the levels of job insecurity in employees in the public and the private sector exist. Although previous research (Manksi & Straub, 2000) had shown that public sector employees tend to experience lower job insecurity than private sector employees. It was expected that changes imposed by government aimed at increased profitability of public organisations in recent years, would increase public sector employees' job insecurity levels. Consequently, it was expected that there would be no significant difference in the job insecurity levels of public and private sector employees. Interestingly, results, demonstrated that employees in the public sector experienced higher levels of affective job insecurity than their private sector counterparts.

The final specific objective was to determine whether demographic groups differ in terms of their levels of job insecurity, situational sense of coherence, and general health. In terms of the general health of the participants, practically-significant relationships were found to exist between the general health levels of different gender and culture categories. Results suggested that females demonstrated higher levels of ill health than

males. The International Labour Organization (2001) found that women appear to be more vulnerable to the effects of job insecurity, which can in turn increase exhaustion and lower their levels of general health.

A relationship between general health and culture also exists – suggesting that the white and 'other' cultural groups experience higher levels of ill health than their black counterparts. These findings correlate with the research done by Viljoen (2005). Contrary to expectation, no significant differences were found in the situational sense of coherence of different demographic groups.

3.2 LIMITATIONS OF THE RESEARCH

The following limitations can be identified in this study:

- A limitation of this study is the size of the sample, specifically the distribution of cultural groups and the sampling method. Future studies could benefit by making use of random, stratified sampling with the proportionate inclusion of cultural groups.
- A further limitation of this study was its reliance on self-report measures. According to Schaufeli, Enzmann and Girault (1993), the exclusive use of self-report measures in validation studies increases the likelihood that at least part of the shared variance between measures can be attributed to method variance. Some participants may also have doubted the confidentiality of their responses, which may have influenced some of the results.
- Regarding the research design, future studies should focus on longitudinal designs. This would make it possible to make causal inferences. In terms of cross-sectional designs, it is inappropriate to refer to an independent variable (such as job insecurity in this case) affecting dependent variables such as general health and situational sense of coherence. The reason for this, is that the order of

influence may be reversed as well (for example general health and situational sense of coherence rather being antecedents to job insecurity).

- The Job Insecurity Questionnaire could be considered as insufficient in that it focuses only on the prospects of losing one's job and disregards other sources of job insecurity (as proposed by the multi-dimensional/qualitative view of job insecurity). Reward distribution, loss of promotional prospects, pay, autonomy, recognition and poor communication are all possible sources for job insecurity.
- The deletion of items from the JIQ, OLQ-S and GHQ for reasons of model-fit improvement resulted in the sacrifice of model parsimony, i.e. relationships have been eliminated which could be viewed as erosion in the meaning of the constructs measured in this research.

3.3 RECOMMENDATIONS

Recommendations are made with regard to the applicable organisations, as well as with regard to future research.

3.3.1 Recommendations for the organisations

The mean score obtained by the participants in this study indicates that job insecurity levels were not particularly high or low. This implies that while the level of job insecurity experienced by the employees in these organisations is not problematic, some job insecurity does exist and may need to be managed. Within this research in particular, public sector participants presented higher levels of affective job insecurity as compared to the private sector participants. Affective job insecurity was also found to contribute towards increased social dysfunction (i.e. ill health) and lower levels of sense of coherence.

Canaff (2005) proposes making use of career counsellors as a mechanism for assisting job insecure employees, as well as encouraging employees to seek support from family and friends in order to buffer feelings of anxiety and grief. Barker (1999) found that

perceived fairness is a major concern for employees in terms of job insecurity and that job insecurity is affected by how employees feel processes are fairly managed. De Witte (in press) states that by reducing unpredictability and uncontrollability, the negative consequences of job insecurity could be avoided or at least mitigated. There are three ways in which this can be achieved: (1) communication, (2) participation, and (3) decision-making. De Witte (in press) states that insecurity is stimulated by a lack of communication about future events, and that organisations need open, honest and early communication in order to increase the predictability and controllability of future events. By *participating*, employees increase their control over situations. Participating in the decision-making process also heightens the predictability of events

It was found that white and 'other' participants experience higher levels of ill health than their black counterparts (especially in terms of social dysfunction and somatic symptoms). It is important to note that optimum well-being and health among employees will be extremely beneficial to the company's well-being. Sawyer-Morse (2004) states that greater gains may be experienced through the direct influence of positive worker health on individual or group productivity, greater creativity and innovation, enhanced resilience, and increased intellectual capacity.

The World Health Organization (2005) states that the real determinants of health are not only one's genetic make up and lifestyle, but also working conditions, education, environment, social support and living conditions. This was confirmed by the current study, which demonstrated the negative impact of job insecurity on general health. Job insecurity and ill health have negative effects on business, they lower employee output and result in psychological withdrawal (World Health Organization, 2005). The shift in the industrialised world to a technology-driven society means that business must increasingly rely on its human resources to survive and be competitive. However, under stress, employees rarely show such essential qualities as creativity and innovation. It is for this reason that situational sense of coherence and its mediating role on the relationship between job insecurity and general health is so useful to organisations (both public and private). It suggests that if employees are able to deal with, and make sense

of, job insecurity and the resulting emotions, their levels of well-being will be elevated. As a result, they will be able to make cognitive sense of the workplace and cope more effectively with the challenges that come their way.

Organisations might find it worthwhile investing in stimulating a higher level of situational sense of coherence among its employees. A person with strong situational coherence is able to understand his/her situation and is able to utilise his/her abilities to gather and use resources in dealing with the situation effectively. By reinforcing behaviour in such a manner, employees can see a direct link between their feelings of insecurity and their ability to cope with these feelings. Given the findings of this research, by stimulating a situational sense of coherence, the negative influence of job insecurity on general health can be reduced. Based on this information, it follows that organisations will benefit greatly from having training and development programmes and other initiatives in place that will aid employees in optimising their levels of situational sense of coherence, as well as from implementing wellness programmes which aim to ensure that employees lead active and healthy lifestyles.

Organisations can contribute to the development of employees' sense of coherence by giving information in a consistent, structured, ordered and understandable format. Employees should further be able to identify their roles within the greater whole and, as such, the comprehensibility component of sense of coherence will be enhanced (International Labour Organization, 2001).

More research also needs to be conducted in terms of the levels of differences (and similarities) that exist between the public and the private sector. Both sectors can learn from one another, especially when it comes to ways in which to deal with employees' job insecurity. Being aware of the differences between the sectors, and using the knowledge to benefit business as a whole, will help create a stronger, more vibrant South African economy.

3.3.2 Recommendations for future research

The two-factor structure of the JIQ, as well as its internal consistency, was confirmed in this research. The deletion of Item 2 ("There is only a small chance that I will become unemployed") is consistent with previous research (Bosman, 2005). A possible reason for the problematic nature of Item 2 may be the ambiguous nature of the question itself. Reformulation of this item may be required in future South African studies using the JIQ. The JIQ should also be translated into other South African languages. It is recommended that a larger, more representative sample be used.

A more comprehensive, multi-dimensional measure of job insecurity must be applied, where aspects such as loss of promotional prospects, pay and recognition are also taken into consideration.

To date, research on the consequences of job insecurity has focused specifically on the health and well-being of individual employees. Attention has also been given to organisational consequences (De Witte, in press). The time has come to broaden the field by investigating the consequences of job insecurity on the employee's family, as well as by investing more in comparative research on the antecedents and consequences of job insecurity (De Witte, in press). Besides broadening research efforts, it might also be necessary to gain more in-depth knowledge on job insecurity. A large portion of the research into the consequences of job insecurity is descriptive in nature. De Witte (in press) believes that scientific knowledge about the consequences of job insecurity would benefit future research with a more theoretically-oriented approach.

More research needs to be conducted on situational sense of coherence as a construct, as well as the OLQ-S questionnaire within the South African context. Owing to the fact that the questionnaire is still relatively new, very few South African statistics are recorded about the questionnaire. This particular research has indicated that situational sense of coherence plays a partially mediating role in the relationship between job insecurity and general health - suggesting that it has the capacity to be a very effective tool in dealing with the negative outcomes of job insecurity.

Practical significance should be determined in addition to statistical significance, and adequate statistical techniques (e.g. structural equation modelling) should be used. It is recommended that a more powerful sampling method be used and that longitudinal designs be employed so as to enable casual inferences. Making use of stratified random sampling rather than a cross sectional design, will eliminate inequalities as found in this study.

By conducting research regarding the validity and reliability of the JIQ, OLQ-S and GHQ in a variety of occupational groups, norms can be developed for occupational groups, professions, industries and sectors. Such groups can then also be compared, and occupations that are most at risk can be identified. Future studies should focus on the bias and equivalence of the various measuring instruments for different cultural and language groups.

3.4 CHAPTER SUMMARY

In this chapter conclusions regarding the theoretical and empirical objectives were made. The limitations of this research were pointed out and recommendations were made for the organisations in which the study took place, as well as for future research. All theoretical and empirical objectives formulated for this research, have been attained

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