

JOB INSECURITY, SENSE OF COHERENCE AND THE GENERAL HEALTH OF EMPLOYEES AT A HIGHER EDUCATION INSTITUTION IN SOUTH AFRICA

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Abstract

This study investigated the relationship between job insecurity, sense of coherence and general health of employees in a higher education institution in South Africa. A cross-sectional survey design was used. A random sample (n = 229) was taken from academic and non-academic staff members of the institution. The Job Insecurity Inventory, General Health Questionnaire and Orientation to Life Questionnaire were administered. The results showed that a negative relationship exists between job insecurity and general health, while a positive relationship exists between sense of coherence and general health. High job insecurity and a weak sense of coherence predicted ill health. Based on the findings of this study, it is recommended that higher education institutions should attend to job insecurity by communicating effectively with employees, in order to clarify expectations, and ensure support from supervisors. Developing the employees' sense of coherence can positively impact on their wellness. Owing to the cross-sectional design of the study, no conclusions regarding causality was drawn.

Keywords: Job Insecurity, General Health, Sense of Coherence, Higher Education Institutions, Moderation Effect

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1 Introduction

Since 1994, the post-apartheid government of South Africa has attempted to redress the inequalities and struggles inherited from the apartheid era, by initiating strategies and systems to change the education systems through a restructuring process. These changes have generated a new field of studies on the origins, motives, processes and outcomes that result from combining various kinds of institutions (Habib & Parekh, 2000; Kotecha & Harman, 2001; Reddy, 2001). The process led to fear of job insecurity among employees in higher education institutions (Hay & Fourie, 2002). It increased demands within the academic environment and impacted upon employees' levels of morale and anxiety (Hay & Fourie, 2002; Lalla, 2009; Stephen, 2010).

According to Nyasha (2011), restructuring leads to extreme uncertainty and fear of job losses amongst employees. It creates job insecurity and becomes a threat to individual well-being (Kavangh & Ashkanasy, 2006), in addition to reduction in general health (Burchell, Ladipo, & Wilkinson, 2002). Studies by Van Wyk and Pienaar (2008) and Burchell et al. (2002) found that levels of job insecurity increase when organisations undergo restructuring. In turn, job insecurity causes increasing emotional turmoil and

stress to employees in higher education (Barkhuizen & Rothmann, 2008; Viljoen & Rothmann, 2009). Employees use different strategies to cope with psychological and work-related stress. This means that employees need the resources to cope with work-related demands and that these demands are meaningful and worthy of engagement.

It has been found that personal resources explain why job resources translate to positive outcomes, such as engagement and job performance (Xanthopoulou, Bakker, Heuven, Demerouti, & Schaufeli, 2008), and it alter the perception of job resources over time (Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010). It means that through sense of coherence, individuals experience a higher level of wellness (Peterson & Seligman, 2004), which in this case is general health.

Problem Statement

The effect of job insecurity on the employees' moral needs to be investigated further as indicated by Hay and Fourie (2002). The level of moral as a result of job insecurity is related to stress, which has a knock-on effect on the university's efficiency and effectiveness.

Research questions

The above statement led to the following research questions:

Is there any relationship between job insecurity, sense of coherence and general health at a higher education institution?

Does a sense of coherence have a moderating effect on the relationship between job insecurity and general health of employees at a higher education institution?

Research objectives

The objectives of this study were:

To determine the relationship between job insecurity, sense of coherence and general health at a higher education institution.

To establish whether a sense of coherence has a moderating effect on the relationship between job insecurity and general health at a higher education institution.

2 Literature Review

Job insecurity

Most researchers have adopted a global view on job insecurity and they describe it as an overall concern about the continued existence of the job in the future (Cheng & Chan, 2008; De Witte, 1999; Kasto, Elo, Lipponen, & Elovainio, 2005; Sverke, Hellgren, & Naswall, 2002). The existence of jobs is based on the assurance employees have that is based on the employee contract. Various studies (Bartrum, 2006; Kinnunen, Mauno, Natti, & Happonen, 2000) indicate that job insecurity has been based on a multidimensional definition, which encompasses factors such as threats to various job features (employment conditions) and the inability to counteract such threats. Job insecurity involves the experience of a threat and implies a great deal of uncertainty regarding whether individuals will keep their jobs in the future (De Witte, 2005), while a subjective experience reflects uncertainty about future employment (De Witte, 2005; Sverke, De Witte, Naswall, & Hellgren, 2010). Employees who feel uncertain cannot prepare themselves adequately for the job ahead.

According to Viljoen, Bosman, and Buitendach (2005), job insecurity refers to an employee's negative feelings towards changes relating to his/her job. It can also be regarded as a job stressor (Bernhard-Oettel, De Cuyper, Schreurs, & De Witte, 2011; De Cuyper, Baillien, & De Witte, 2009; Emberland & Rundmo, 2010; Hellgren & Sverke, 2003; Sverke et al., 2002). It has been conceptualised in relation to two dimensions, namely cognitive and affective job insecurity. Cognitive job insecurity relates to people's perceptions of possible job loss, whereas affective job insecurity relates to the fear of job loss (Bosman, Rothmann, & Buitendach, 2005; De Witte, 2005).

Probst (2002), as well as Quick and Tetrick (2003) state that job insecurity leads to negative job-related reactions. This change causes greater stress to the employees who are not certain about the future existence of their jobs. Stress depends on the perceived imbalance between an individual's perceptions of the demands made by the environment and the individual's perceived ability and motivation to cope with those demands (Probst, 2002). Potential future unemployment may have significant consequences on the job and on the responsibility of the employees. Vander Elst, Baillien, De Cuyper & De Witte (2010) indicate that possible ways to cope with job insecurity may take two forms, namely by pursuing ways to prevent perceptions of job insecurity and, by pursuing ways to buffer its negative effects on employees functioning. According to Cooper, Dewe, and O'Driscoll (2001) stress occurs when the demand exceeds the supply and threatens an individual's health.

General health

General health is defined in the Constitution of the World Health Organisation (2000) as a state of absolute physical, social and mental well-being. It is defined by the Occupational Health and Safety Act (no 85 of 1993) as being free from illness or injury attributable to occupational causes. General health has conceptualised according to Goldberg and Hillier's (1979) definitions. Its discourse relates to four facets namely, somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. These four facets are related to stress, particularly psychological stress (Goldberg & Hillier, 1979).

According to Goldberg and Hillier (1979), somatic symptoms are characterised by an individual's inability to feel perfectly well in a good health, as well as feelings of being in need of a tonic, feelings that one is getting pains in one's head and a feeling of tightness or pressure. It refers to individuals' complaints about serious health conditions that interfere significantly with their capacity to perform important activities (Barlow & Durand, 2005). Anxiety is described as a negative mood condition characterised by bodily symptoms of physical tension and worry about the future (Barlow & Durand, 2005) and it is linked to difficulties to fall asleep (Morin, 1993).

Social dysfunction refers to the inability of an individual to enjoy normal daily activities. The individual feels that he/she is not playing an important role. It is considered a diagnostic feature of schizophrenic disorders, but its definition lacks validity (Barlow & Durand, 2005). Severe depression is represented by statements such as "I felt that life is not worth leaving" and "I felt that life is entirely hopeless" (Goldberg & Hillier, 1979). Its episodes are associated with the greatest hazards of morbidity and mortality (Thase, 2000). In a study by Matsuzaki et

al., 2007), it was reported that depression and anxiety influence the levels of one's sense of coherence.

Sense of coherence

Sense of coherence has been defined by Antonovsky (1993) as a relatively stable dispositional orientation that is represented by the concepts of comprehensibility, manageability and meaningfulness. According to Antonovsky (1987), comprehensibility is the extent to which persons find or structure their world to be understandable, meaningful, orderly and consistent, instead of chaotic, random and unpredictable. Manageability is the extent to which people experience events in life as situations that are enduring or manageable. These events can even be seen as new challenges. Lastly, Meaningfulness is the extent to which the individual's life makes sense not only at an emotional level, but at a cognitive level, as well. The constructs of sense of coherence explain that individuals with a high sense of coherence have confidence that the world is understandable and that it makes sense to them (comprehensibility). They believe that the world has resources available for meeting the demands that they face (manageability) (Shiu, 1998).

Researchers further reported that a strong sense of coherence enables one to mobilise effective coping resources (Levert, Lucas, & Ortlepp, 2000). A weak sense of coherence results in poor tension management and an inability to mobilise adequate resources, culminating in the breakdown of one's health (Antonovsky, 1987). Grayson (2008) views sense of coherence as a product of the interaction between an individual and the social and cultural environment in which he/she is raised and lives. Sense of coherence requires certain inherent prerequisites for coping successfully (Rothmann, 2009). Individuals will select the appropriate method for coping with stress within the environment.

3 The relationship between job insecurity, general health and sense of coherence

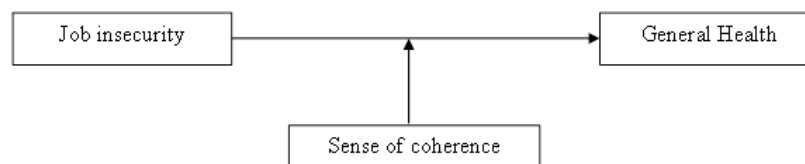


Figure 1. Moderating effects of sense of coherence on the relationship between job insecurity and general health

Source: Authors' Fieldwork

The above schematic presentation suggests that the relationship between job insecurity and general health differ at different levels of sense of coherence.

4 Research hypotheses

Literature revealed that job insecurity is associated with general health (Hellgren & Sverke, 2003; Schreurs, Van Emmerik, Notelaers, & De Witte, 2010; Silla, De Cuyper, Gracia, Peiró, & De Witte, 2009). It correlates negatively with employee health (Bernhard-Oettel et al., 2011; De Cuyper et al., 2009; Sparks, Faragher, & Cooper, 2001) and is associated with increased poor health (Cheng, Chen, Chen, & Chiang, 2005; Laszlo et al., 2010). It is also associated with psychological distress and somatic complaints (Ferrie, 2001; Sverke et al., 2002) as well as anxiety and depression (Burchell, 2005; Orpen, 1994). Job insecurity is a job stressor (Cheng et al., 2005) which implies that feelings of powerlessness relate to poor well-being (De Witte, 1999). The feeling of powerlessness in employees may be due to the lack of necessary resources to reduce work related demands. A person's sense of coherence is an important predictor of his or her health (Antonovsky, 1993; Rothmann, 2001). A strong sense of coherence is related to general wellness (Feldt, 1997), mental health (Eriksson & Lindstrom, 2006). It influences the levels of depression and anxiety (Matsuzaki et al., 2007).

Strumpfer, Danana, Gouws, and Viviers (1998) found a relationship between sense of coherence and job insecurity. Employees with high levels of job insecurity displayed a lower sense of coherence (Grant, 2005). Low job insecurity is related to a strong sense of coherence (Feldt, Kivimaki, Rantala, & Tolvanen, 2004). This relationship is supported by Van Vuuren, Klandermans, Jacobson & Hartley (1999), as well as Feldt, Kinnunen, and Mauno (2000), who indicate that there is a correlation between job insecurity and sense of coherence. Barbosa (2009) has found that sense of coherence moderates the relationship between job insecurity and general health. Thus, sense of coherence is hereby tested as a moderator on the relationship between job insecurity and general health.

From the above literatures, the following hypotheses have been formulated:

H1: Job insecurity negatively relates to general health.

H2: Sense of coherence positively relates to general health.

H3: Sense of coherence moderates the relationship between job insecurity and general health.

5 Methodology & design

The study adopted a quantitative research methodology. An Organisational Stress Screening Tool (ASSET) model was used in this study. It measures an employee's potential exposure to stress (Viljoen & Rothmann, 2009). A cross-sectional survey based research design was used to obtain data within a higher education institution in South Africa. This design was ideally suited to the descriptive functions associated with correlation research (Shaughnessy, Zechmeister, & Zechmeister, 2003). Specific questionnaires were applied to achieve the research objectives. Questionnaires were used to gather primary data from research participants (Davis, 2005; Garcia et al., 2012).

Participants

Staff members of the investigated educational institution participated in this study. Out of 500 questionnaires distributed, 229 were returned, representing 45.8% of the selected sample. A biographic questionnaire was developed and attached to all the questionnaires.

Measuring Instruments

The Job Insecurity Inventory (JII; De Witte, 2005) was used as a measure of job insecurity. This 11-item questionnaire measure both the cognitive and affective dimensions of job insecurity and are arranged along a five-point Likert-type scale, varying from 1 (strongly disagree) to 5 = (strongly agree). De Witte (2005) reported a Cronbach alpha coefficient of 0.92 for global job insecurity. A satisfactory Cronbach's alpha coefficients of 0.85 were obtained in a study of 500 educators in the Sedibeng West District (Matla, 2009). The General Health Questionnaire (GHQ; Goldberg & Hillier, 1979) was used for measuring general health. The 28 item questionnaire measures somatic syndrome, anxiety and insomnia, social dysfunction, and severe depression (Goldberg & Hiller, 1979). The items are measured on a five-point Likert-type scale, ranging from 1 (not at all) to 5 (a great deal). In a study by Goldberg and Hillier (1979), internal consistency coefficients of 0.69 to 0.90 were reported. Studies by Goldberg et al. (1997) as well as Nagyova et al. (2000) indicate that a good reliability and validity indices for the GHQ across various cultures were reported in their studies. The Orientation to Life Questionnaire (OLQ; Antonovsky, 1987) was used to measure the participants' sense of coherence. The 29 items questionnaire measure sense of coherence and arranged on seven-point Likert-type scale, ranging from 1 (never) to 7 (always have this feeling) and

differ from one item to the other as an example item 9 range from 1 (very often) to 7 (very seldom or never). Antonovsky (1987) proposed three subscales for the questionnaire, as comprehensibility (which is measured by 11 items), meaningfulness (which is measured by eight items and manageability (measured by ten items). In studies by Antonovsky (1987, 1993) as well as Muller and Rothman (2009) a satisfactory Cronbach's alpha coefficient was found.

Ethical considerations

Prior to conducting the study, a request for permission to conduct a research was made clear and permission was granted to conduct the research. Confidentiality, anonymity and the voluntary nature of the study were addressed. Assurance was given that the information acquired would only be used for this research purposes.

Statistical Analysis

Statistical analysis was carried out with the use of the IBM-SPSS program (IBM-SPSS, 2011). Exploratory factor analyses were carried out to assess the validity of the constructs that were measured. Cronbach's alpha coefficients were used to assess the reliability of the measuring instruments (Clark & Watson, 1995). Descriptive statistics (e.g. means and standard deviations) were used to analyse the data. Pearson product-moment correlations were used to specify the relationship between different variables. The statistical significance was set at $p < .05$ and the effect sizes were computed to assess the practical significance of the relationships. A cut-off point of .30, which represents a medium effect, was set (Cohen, 1988).

Hierarchical regression analyses were conducted to determine whether sense of coherence moderated the relationship between job insecurity and general health. According to Preacher, Curran & Bauer (2006) moderation is important in explaining and testing the interactive effects of two or more variables in predicting a dependent variable while controlling for associated main effects. In the first step, all predictor variables in their interval form (job insecurity and sense of coherence) followed by the interaction in the second step, were entered into the regression equation. A significant interaction term indicates that the effect of sense of coherence on either job insecurity or general health differs. Heuven, Bakker, Schaufeli, and Huisman (2006) indicate that the significance of standardized regression coefficients is evidence of moderation with the significance of the change in the coefficient of R^2 determination (ΔR^2).

6 Result

Exploratory Factor Analyses

An exploratory factor analysis was computed for the JII to verify the construct validity of the components of the questionnaire. An analysis of the eigenvalues (> 1.00) indicated that one factor explained 40.77% of the variance. According to literature, items 1, 2, 3, 4, 10 and 11 are representative of the cognitive job insecurity scale, whereas items 5, 6, 7, 8, and 9 are representative of the affective scale (De Witte, 2005). Table 2, shows that all items of the JII loaded together

and item 2, “There is only a small chance that I will become unemployed”, was deleted to improve the reliability. Based on the above information, the researchers decided to use job insecurity as one construct (Total-Job insecurity). In previous studies by Bosman et al. (2005), as well as Viljoen et al. (2005), it was reported that item 2 of the JII was also removed from the scale. Table 2 shows the item loadings of the JII scale.

Table 2. Pattern Matrix of the Job Insecurity Inventory

Items	Component	
	1	<i>h</i> ²
1. I think that I will be able to continue working here.	.53	.28
3. I am certain/sure of my job environment.	.54	.29
4. I am very sure that I will be able to keep my job.	.33	.11
5. It makes me anxious that I might become unemployed.	.60	.36
6. I feel uncertain about the future of my job.	.55	.30
7. I worry about the continuation of my career.	.51	.26
8. I fear that I might lose my job.	.73	.53
9. I fear that I might get fired.	.75	.56
10. There is a possibility that I might lose my job in the near future.	.77	.59
11. I think that I might be dismissed in future.	.52	.27

An exploratory factor analysis was computed for the 28 items of the GHQ to verify the construct validity of the components of the questionnaire. An analysis of the eigenvalues (> 1.00) indicated that five factors explained 52.99% of the variance. The results of the principal axis factor analysis with loadings of variables on factors are shown in Table 3. According

to literature, the GHQ should load on four factors as supported by Goldberg, (1979), whereas in this study it resulted in a split on original Factor 4. This led to the five factors reported for GHQ. Severe depression has been divided into two subscales, namely Hopelessness and Worthlessness. No similar results were found in other studies.

Table 3. Pattern Matrix of the General Health Questionnaire

	Items	Factor					
		F1	F2	F3	F4	F5	<i>h</i> ²
A	Been feeling in need of a good tonic?	.15	-.01	.03	.01	.48	.23
	Been feeling run down and out of sorts?	.04	-.28	-.18	-.15	.64	.41
	Felt that you are ill?	-.09	-.13	-.08	-.15	.69	.47
	Been getting any pains in your head?	.01	.14	-.09	.04	.62	.38
	Been getting a feeling of tightness or pressure in your head?	.09	.28	.12	.07	.50	.25
B	Lost much sleep over worry?	.07	.24	.04	-.42	.14	.18
	Had difficulty in staying asleep once you are off?	.03	.16	.09	-.72	.04	.52
	Felt constantly under strain?	.10	-.07	-.12	-.70	-.02	.49
	Been getting edgy and bad tempered?	.07	.09	-.24	-.36	.04	.13
C	Been managing to keep yourself busy and occupied?	.71	.06	.08	.03	.07	.49
	Been taking longer over the things you do?	.74	-.11	.13	-.08	-.03	.64
	Felt on the whole you were doing things well?	.68	-.09	-.02	-.09	-.04	.46
	Been satisfied with the way you've carried out your task?	.55	-.09	-.26	-.01	.11	.30
	Felt capable of making decisions about things?	.41	-.08	-.10	-.10	.12	.16
Been able to enjoy your normal day-to-day activities?	.42	.08	-.36	.03	.16	.18	
D1	Felt that life is entirely hopeless?	.10	.15	-.57	-.02	.20	.32
	Felt that life isn't worth living?	-.03	-.02	-.67	-.12	-.00	.45
	Thought of the possibility that you might do away with yourself?	-.06	.07	-.81	.04	.01	.66
D2	Found at times you couldn't do anything because your nerves were too bad?	-.06	.68	.01	-.09	.14	.46
	Been thinking of yourself as a worthless person?	.34	.41	-.18	.15	.02	.17
	Found yourself wishing you were dead and away from it all?	.06	.58	-.12	-.24	-.05	.34
	Found that the idea of taking your own life kept coming into your mind.	-.34	.52	-.07	-.09	-.07	.27

An exploratory factor analysis was computed for the 12 items of the SOC to verify the construct validity of the components of the questionnaire. The one factor structure proved to be the best option. It was selected based on internal consistency reliability (Barnard, Peters, & Muller, 2010). Sense of coherence indicates an acceptable Cronbach's alpha coefficient of 0.73. One item was deleted to improve Cronbach's alpha coefficient.

Reliabilities, Descriptive Statistics and Correlations

Descriptive statistics, Cronbach's alpha coefficients and correlations of the measuring instruments (JII, GHQ and OLQ) are reported in Table 4. The information reflected in Table 4 indicates that the ten items of the job insecurity scale have a Cronbach's alpha coefficient of 0.83. According to Table 4, a statistically significant positive relationship exists between job insecurity and general health, practically significant positive correlation of medium effect between job insecurity and anxiety, statistically

significantly related to somatic symptoms and social dysfunction, hopelessness and worthlessness. A higher score on general health indicates bad health, and when employees experience less job insecurity they enjoy better health. Thus, the results of this study support Hypothesis 1, indicating a negative relationship between job insecurity and general health.

As indicated in Table 4, Cronbach's alpha coefficients for the subscales of GHQ are acceptable with only hopelessness just below the acceptable cut-off point of 0.70 (Nunnally & Bernstein, 1994). A Cronbach's alpha coefficient of sense of coherence is acceptable. Sense of coherence has a practically significant negative correlation of medium effect with somatic symptoms, anxiety/insomnia and social dysfunction. It has a statistically significant negative correlation with hopelessness and worthlessness. A higher score on general health indicates bad health. Thus, the results support Hypothesis 2, which indicates that a positive relationship exists between sense of coherence and general health.

Table 4. Descriptive Statistics, Alpha Coefficients and Correlations of the Scales

Variable	α	Mean	SD	1	2	3	4	5	6	7
1. JI	0.83	2.35	0.71	-	-	-	-	-	-	-
2. GHQ_A– Somatic Symptoms	0.75	1.44	0.53	.19*	-	-	-	-	-	-
3. GHQ_B– Anxiety/Insomnia	0.73	1.47	0.53	.40*†	.43*†	-	-	-	-	-
4. GHQ_C – Social Dysfunction	0.79	1.51	0.54	.14*	.51*††	.43*†	-	-	-	-
5. GHQ_D1 – Hopelessness	0.69	1.34	0.45	.14*	.28*	.41*†	.40*†	-	-	-
6. GHQ_D2 –Worthlessness	0.79	1.32	0.55	.30*	.46*†	.47*†	.42*†	.38*†	-	-
7. SOC – Total	0.73	4.79	0.90	-.28*	-.46*†	-.35*†	-.45*†	-.28*	-.28*	-

*Correlation is statistically significant at the .05 level (2-tailed)

**Correlation is significant at the .01 level (2-tailed)

† Correlation is practically significant $r \geq .30$ (medium effect)

††Correlation is practically significant $r \geq .50$ (large effect)

Multiple Regression Analyses

Table 5 shows the multiple regression analyses with job insecurity and sense of coherence as predictors of general health. The entry of job insecurity and sense of coherence at the first step of the regression analysis produced statistically significant models: Somatic symptoms, $F = 31.16$, $p < .05$, $R^2 = 0.22$; Anxiety, $F = 31.98$, $p < .05$, $R^2 = 0.22$, Social dysfunction, $F(df = 28.53)$, $p < .05$, $R^2 = 0.20$, Hopelessness, $F = 10.03$, $p < .05$, $R^2 = 0.08$ and Worthlessness, $F = 17.13$; $p < .05$, $R^2 = 0.13$. All aspects of general health made a statistically significant contribution to the regression model when sense of coherence was entered in the first step. This implies that sense of coherence predicted general health.

Job insecurity significantly predicted anxiety ($F = 31.98$, $p < .05$, $R^2 = 0.22$) and worthlessness ($F = 17.13$; $p < .05$, $R^2 = 0.13$). Two variables made a statistically significant contribution to the regression model: Anxiety ($\beta = 0.33$, $p < .05$) and worthlessness ($\beta = 0.23$, $p < .05$). This implies that job insecurity predicted general health. The results of the main effect

indicate that sense of coherence predicts general health, and job insecurity predicts anxiety and worthlessness. The entry of the interaction term between job insecurity and sense of coherence in the second step of the model made no statistically significant contribution ($\Delta R^2 = .00$) for all general health factors.

Interaction Effects

Moderating effects were assessed using the guidelines suggested by Baron and Kenny (1986). The moderation of sense of coherence between job insecurity and aspects of general health was tested with hierarchical regressions. In an attempt to test the possibility of any interaction effects, the centred predictors and moderator were entered first into the regression equation, followed by their interactions in the second step, in order to predict job insecurity and different aspects of general health. The results of hierarchical regression are indicated in Table 5. According to Baron and Kenny (1986), evidence of a

moderator effect is present when the interaction term between the predictor and moderator is significant.

Table 5. Interaction of Job Insecurity and Sense of Coherence on General Health

	Somatic Symptoms		Anxiety		Social Dysfunction		Hopelessness		Worthlessness	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Sense of coherence	-.44*	-.43*	-.25*	-.24*	-.44*	-.42*	-.26*	-.27*	-.21*	-.22*
Job insecurity	.06	.05	.33*	.32*	.01	.01	.06	.06	.23*	.24*
Job insecurity x Sense of coherence		.07		-.05		-.10		.06		-.04
R^2	.22*	.22	.22*	.22	.20*	.21	.08*	.08	.13*	.13
F	31.16*	21.32*	31.98*	21.55*	28.53*	20.13*	10.03*	7.05	17.13*	11.53*
ΔR^2		.00		.00		.01		.00		.00
ΔF		1.50		.76		2.85		1.07		.41

Table 5 shows that the interaction terms of job insecurity with sense of coherence as predictors of general health were not statistically significant as there is no significant change in the coefficient of R^2 associated with the interaction term. The coefficient of the interaction between job insecurity and sense of coherence was not statistically significant ($R^2 = .00$) on somatic symptoms, anxiety, social dysfunction, hopelessness or worthlessness. When the interaction term between job insecurity and sense of coherence was entered in a model, no statistically significant change in R^2 was found. No interaction effect between job insecurity and general health expectation was found for sense of coherence. This implies that sense of coherence is not a moderator of the relationship between job insecurity and general health. The hypothesis that indicates that sense of coherence moderates the relationship between job insecurity and general health was not supported, thus Hypothesis 3 is not accepted.

7 Discussion of Result

The aim of this study was to examine the relationships among job insecurity, general health and sense of coherence in a higher education institution. The results of the study showed that job insecurity is related to ill-health. This is supported by Grant (2005) study which indicates a practically significant relationship between job insecurity and general health (anxiety, somatic symptoms, social dysfunction, hopelessness and worthlessness). Employees who experience high job insecurity also experience problems with their health. High job insecurity acts as a chronic threat and has more immediate health consequences (Cheng & Chan, 2008; Oettel et al., 2011; Schreurs et al., 2010; Silla et al., 2009; Tucker, 2010). It was expected that employees' health would be negatively affected by job insecurity. This implies that job insecurity is an important determinant of employee health.

The results of the study found that job insecurity was negatively related to sense of coherence. The negative relationship between job insecurity (demands) and sense of coherence (resources) is due

to employees' perception of the work environment. If employees perceive the environment as comprehensive, manageable and meaningful to their life, they will feel less insecure. These mean high levels of job-related resources purportedly transform job demands into positive challenges (Grönlund, 2007). Employees that structure their work environment to be understandable, meaningful and orderly will experience less job insecurity. A strong sense of coherence enables one to mobilise effective coping resources in the face of tension (Levert et al., 2000). Sense of coherence in this study is discussed as a personal resource that assists individuals in dealing with challenges and stressors within their particular working environment (Pearlin & Schooler, 1978). Personal resources allow individuals to address and confront work related demands in stressful situations. Employees who have resources view work situations as manageable and they are more hopeful about new challenges and the future of their job. They have confidence that the world is understandable and makes sense to them (comprehensibility), namely that resources are available for meeting the demands that they face (manageability); and are worthy of taking action on the demands, which have meaning in their lives (Shiu, 1998). A South African study by Naude and Rothmann (2006) supported the practically significant negative relationship that exists between job insecurity and sense of coherence.

General health was positively related to sense of coherence. Employees with a low sense of coherence experience problems with their health. A weak sense of coherence results in poor tension management and an inability to mobilise adequate resources, culminating in health breakdown (Antonovsky, 1987). It further indicates that a person's sense of coherence is an important component of a person's health (Antonovsky, 1993; Rothmann, 2003). It can then be argued that a weak sense of coherence can lead employees to perceive situations as threatening (i.e. high job demands and low job resources), which in turn could lead to ill health. A practically significant negative correlation between sense of coherence and general health is supported in a study by Ying, Lee,

and Tsai (2007) which shows that sense of coherence was significantly negatively associated with depressive symptoms.

Individuals want to have a purpose in life and wish to live meaningful lives. This can be fulfilled when they are able to effectively manage stress and situations around them in order to maintain healthy life styles. When individuals feel in control of the resources used for coping with the situations, manageability is enhanced by comprehensibility to make life meaningful for employees (Endo, Kanou, & Oishi, 2012). Individuals manage the situation they are in through the manageable capacity and find meaning to move in a healthy direction, to make life meaningful. The results of the study showed that sense of coherence is a predictor of somatic symptoms, anxiety, social dysfunction, hopelessness and worthlessness. This implies that sense of coherence predicts general health. The research shows that strong sense of coherence is a manifestation of healthy functioning of an individual at work (Muller & Rothmann, 2009).

No moderation was found when job insecurity and sense of coherence were entered in the model. This implies that there is no interaction reported in the regression model. Sense of coherence did not affect the direction of the relationship between job insecurity and general health. A possible explanation for the lack of moderation is that sense of coherence can be seen as personal resources that assist individuals in dealing with stress as a consequence of job insecurity within a particular working environment. Personal resources explain why job resources translate into positive outcomes (Xanthopoulou et al., 2008). This is because personal resources alter the perception of job resources (Van den Heuvel et al., 2010) and job demands over time. In other words, the individual, through a personal resource (sense of coherence), perceives a demand (job insecurity) more positively, thus leading to a higher level of wellness (Peterson & Seligman, 2004), in this case general health. Finally, job insecurity is strongly associated with general health under the condition of a low sense of coherence. The research indicates that strong sense of coherence is a manifestation of the healthy functioning of an individual at work (Muller & Rothmann, 2009). The stronger the levels of sense of coherence, the more individuals actively utilise generalised resistance resources, which are the resources they have at their disposal for handling the demands of life. Sense of coherence facilitates one's ability to perceive and control the environment for meaningful and appropriate action (Van Schalkwyk & Rothmann, 2008). People tend to perceive themselves as having the ability to cope with the situation and the environment.

Limitations of the study

There are some limitations of the study. Firstly, due to the cross-sectional design of the study no conclusions regarding causality can be drawn. In future, research should include all higher education institutions in South Africa to assess employees' perspectives in terms of the constructs discussed in this study. Secondly, latent variable modelling was not used to get a more accurate estimation of interaction effects.

Recommendations and conclusion

Managers in higher education institutions should be encouraged to train and support employees to understand the world they live in, gain experience of the environment and confidence to deal with issues. Employees with a strong sense of coherence perceive life as comprehensible, manageable and meaningful. Sense of coherence should be developed in higher education through proper training and coaching of employees to understand that life is constant, structured, ordered and should be understandable. Higher education management should design programmes that will assist in developing a strong sense of coherence, by providing information to employees. More energy and time should be directed at personal development such as self-esteem, locus of control, hope, resilience and optimism. It is recommended that higher education institutions should deal with employees' low sense of coherence in different ways. In terms of comprehensibility, the higher education institutions should provide information in a consistent, structured, ordered and understandable format. In terms of manageability, it should equip employees with the necessary knowledge, skills, materials, instruments and other resources, as well as ensure that there is a balance in the load of tasks to be handled. Lastly, it should be the higher education institution's responsibility to meaningfully allow independence and freedom of choice in the employee's performance of their tasks, promotes participation in decision-making, and allows employees the freedom to discuss with their supervisors what needs to be done (Rothmann, 2009).

It is necessary for the supervisor in higher education institutions to provide employees with leadership, support, guidance and direction, as well as job information necessary for their work. Employees should be allowed to participate in institutional activities and decision-making. Participation in decision-making will reduce insecurity and increase employees' control over the situation. Insecurity is stimulated by a lack of communication about future events. Open communication regarding organisational changes is effective in reducing insecurity (Schweiger & Denisi, 1991). Greenberg and Lind (2000) indicate that communication and participation strengthen the perception that employees are treated fairly by the employer. Kinnunen and Natti (1994), in their research, indicate that adequate information received

by employees can reduce job insecurity. Open, honest and early communication increases the predictability and controllability of future events. Open communication can be achieved by using the informal networks of key employees to disseminate information and deal with any resistance encountered. It is thus imperative for the higher education management to keep open lines of communication with employees at all levels of institutions.

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