

**THE SOCIAL ANXIETY SPECTRUM AND WORK LIMITATIONS AMONG
MANAGERIAL LEVEL EMPLOYEES**

by

Lindy Emsley



**THESIS PRESENTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTERS OF COMMERCE (INDUSTRIAL
PSYCHOLOGY) AT STELLENBOSCH UNIVERSITY**

**SUPERVISOR: Prof D J Malan
CO-SUPERVISOR: Prof S Seedat**

April 2010

DECLARATION

I, the undersigned, Lindy Emsley, hereby declare that the work contained in this thesis is my own original work and that I have not previously, in its entirety or in part, submitted it to any university for a degree.

SIGNATURE:

A handwritten signature in cursive script, appearing to read 'Lindy Emsley', followed by a period.

DATE: April 2010

ABSTRACT

Lindy Emsley, M Comm (University of Stellenbosch)

**THE SOCIAL ANXIETY SPECTRUM AND WORK LIMITATIONS AMONG
MANAGERIAL LEVEL EMPLOYEES**

Supervisor: Prof D J Malan

Social anxiety symptoms are common within the community. They are often unrecognised in many organisations, with resultant significant work impairments. The aim of the study was to explore to what extent the social anxiety spectrum of symptoms influences the performance of management employees and how the disorder should be managed in the workplace. The study includes the following constructs: social anxiety spectrum, job characteristics, work limitations and perceived performance difficulties. A non-experimental research design was used to explore the relationships between the four constructs.

A convenience sample of 250 managerial employees was approached from two large organizations, one in the private, and the other in the public sector. One hundred and eighteen (118) respondents completed and returned their questionnaires.

The descriptive statistics reflected a mean age of 32 years (range 20 to 56 years), with 50% males and 50% females, and a race distribution of 64% White, 29% Coloured, 4% Black and 3% Indian for the sample. The majority of the participants had been working for 0 to 5 years (37.29%). The mean years worked was 10.81 and the median 9.5 (range 0.5 to 40 years worked).

A high percentage of participants (11%) were found to have social anxiety symptoms above the cut off score for a diagnosis of the disorder. The results of the present study indicated that social anxiety affects all areas of work. These

symptoms were associated with several areas of work limitations and performance difficulties not restricted to social interaction or presentation.

It was also found that job insecurity increases social anxiety symptoms, work limitations and perceived performance difficulties. On the other hand, it was found that organisational support may act as a buffer against demands and may decrease work limitations and perceived performance difficulties. Whilst no moderating effect was found for growth opportunities in the relationship between social anxiety and work limitations, support was found for a negative relationship with both social anxiety and work limitations. No moderating effect was found for job insecurity in the relationship between social anxiety and work limitations. However, growth opportunities as a resource were found to moderate the relationship between social anxiety symptoms and perceived performance difficulties. Evidence was also found for the moderating effect of job insecurity in the relationship between social anxiety symptoms and perceived performance difficulties. The limitations of the current study and recommendations for organisations are discussed. This study highlights the importance of social anxiety symptoms as a barrier to effective work performance. Given the fact that interventions can potentially improve social anxiety and thereby performance, this area deserves much greater research attention.

OPSOMMING

Lindy Emsley, M Comm (Stellenbosch Universiteit)

DIE SOSIALE ANGSSPEKTRUM EN WERKSBEPERKINGS VAN BESTUURS- VLAK-WERKNEMERS

Studieleier: Prof D J Malan

Sosiale angssimptome kom algemeen in die gemeenskap voor. Die simptome word nie alledaags in organisasies herken nie, en mag tot merkbaar verlaagde prestasie lei. Die doel van die studie was om die mate waartoe sosiale angsspektrum-simptome die prestasie van bestuursvlak-werknemers beïnvloed te bepaal en ondersoek in te stel na wyses waarop die simptome in organisasies bestuur moet word. Die studie het die volgende konstrakte ingesluit: sosiale angsspektrum-simptome, werkseienskappe, werksbeperkinge en waargenome prestasie-uitdagings. Daar is van 'n nie-eksperimentele navorsingsontwerp gebruik gemaak om die verhoudings tussen die vier konstrakte te bestudeer.

'n Gerieflikheidsteekproef van 250 bestuursvlak-werknemers van beide 'n privaatsektor en publieke sektor organisasie is genader. Eenhonderd en agtien voltooide vraelyste is ingedien. Die beskrywende statistiek het 'n gemiddelde ouderdom van 32 jaar getoon (versprei oor 20 tot 56 jaar), met 50% manlik, 50% vroulik, en 'n rasverspreiding van 64% wit, 29% kleurling, 4% swart en 3% Indiër respondente in die steekproef.

Die meerderheid van die deelnemers het vorige werkservaring van 0 tot 5 jaar (37.29%) aangedui. Die gemiddelde aantal jare van werk was 10.81 en die mediaan 9.5 (versprei oor 0.5 tot 40 jaar gewerk).

'n Hoë voorkomssyfer (11%) van sosiale ang is in die studie gevind, bo die afsnypunt vir die diagnose van die versteuring. Die resultate van die huidige

studie dui aan dat sosiale angste alle aspekte van werk beïnvloed. Hierdie simptome was geassosieer met vele areas van werksbeperkings en waargenome prestasie-uitdagings en was nie slegs tot take wat sosiale interaksie en voordragte insluit, beperk nie.

Die studie het ook gevind dat werksomsekerheid sosiale angssimptome, werksbeperkings en waargenome prestasie-uitdagings verhoog. Organisasie-ondersteuning is aangedui as 'n moontlike buffer teen werkseise en mag werksbeperkings en waargenome prestasie-uitdagings verminder. Geen modereringseffek is vir groeigeleenthede gevind in die verhouding tussen sosiale angste en werksbeperkings nie, maar daar is wel gevind dat groeigeleenthede 'n negatiewe verband met beide sosiale angste en werksbeperkings het. Geen modereringseffek vir werksomsekerheid in die verhouding tussen sosiale angste en werksbeperkings is gevind nie.

Die rol van groeigeleenthede as hulpbron om die verhouding tussen sosiale angssimptome en waargenome prestasie-uitdagings te modereer, is bevestig. Getuigenis is ook vir die modereringseffek van werksomsekerheid in die verhouding tussen sosiale angssimptome en waargenome prestasie-uitdagings gevind. Die beperkings van die huidige studie en voorstelle vir organisasies word bespreek.

Hierdie studie beklemtoon die belangrikheid van sosiale angssimptome as 'n hindernis met betrekking tot effektiewe werksprestasie. Ingrepe kan potensiaal sosiale angste verminder en daardeur prestasie verhoog. Hierdie aspek behoort heelwat meer navorsingsaandag in die toekoms te geniet.

ACKNOWLEDGEMENTS

I would like to extend my gratitude and appreciation to the following people, without whom this study would not have been possible:

Professor Malan, my supervisor, for his guidance, insights and valuable recommendations during the completion of the study. Thank you for all of your time, patience and advice during this time.

Professor Martin Kidd, for assistance with the statistical analysis.

Professor Soraya Seedat for her guidance and insights and encouragement.

I would like to thank the National Research Foundation (NRF) for providing me with a grant for the purposes of this study.

My father, professor Robin Alexander Emsley for all of his advice, motivation, expertise and valuable input in the study.

I thank my mother and father, Erna and Robin, for providing me with the privilege to have studied this far, and for your unconditional love and support.

I would like to extend a thank you to Jean-Sylvain Bartet. For always motivating me, your help with the data-capturing and for always encouraging me to complete the study.

TABLE OF CONTENTS

	PAGE
CHAPTER 1: INTRODUCTION	
1.1 INTRODUCTION	1
1.2 SUMMARY	6
 CHAPETR 2: THEORETICAL FRAMEWORK	
2.1 INTRODUCTION	7
2.2 PSYCHOLOGICAL WELL-BEING IN THE WORKPLACE	7
2.3 MENTAL HEALTH IN THE WORKPLACE	9
2.4 SOCIAL ANXIETY	11
2.4.1 Defining Social Anxiety	11
2.4.2 Social Anxiety Symptoms on a Continuum	12
2.4.3 Measurement of Social Anxiety Symptoms	13
2.4.4 Prevalence of Social Anxiety Disorder in the Community	15
2.4.5 Subtypes of Social Anxiety Disorder	18
2.4.6 Antecedents, Onset and Course of Social Anxiety Disorder	20
2.4.7 Characteristics of Social Anxiety Symptoms	21
2.4.7.1 <i>Intrapersonal characteristics</i>	21
2.4.7.2 <i>Interpersonal characteristics</i>	23
2.4.8 Shyness vs Social Anxiety	24
2.4.9 Co-morbid Psychiatric Conditions	25
2.4.10 Quality-of-life and Social Anxiety Disorder	26
2.4.11 Economic Consequences of Social Anxiety Disorder	27
2.4.12 Manifestation of Social Anxiety in the Workplace	28
2.5 WORK LIMITATIONS AND MANAGERIAL PERFORMANCE	31
2.5.1 Perceived Performance: Managerial Competencies	34
2.6 MANAGEMENT OF SOCIAL ANXIETY SYMPTOMS	37
2.6.1 Job Characteristics	37
2.6.2 Management of Social Anxiety in the Workplace	40
2.6.2.1 <i>Prevention strategies in organisations</i>	41

2.6.2.2	<i>Outsourcing treatment strategies</i>	42
2.6.2.3	<i>Positive psychology and organisational management strategies</i>	44
2.7	RESEARCH GOAL AND OBJECTIVES	46
2.8	SUMMARY	47

CHAPTER 3: RESEARCH METHODOLOGY

3.1	RESEARCH DESIGN	48
3.2	SAMPLE SELECTION AND PROCEDURE	48
3.2.1	Sampling	48
3.2.2	Data Collection and Procedure	49
3.3	MEASUREMENT INSTRUMENTS	51
3.3.1	Social Anxiety Spectrum (SHY-SR)	51
3.3.2	Job Characteristics Scale (JCS)	52
3.3.3	Work Limitations Questionnaire (WLQ)	53
3.3.4	Perceived Performance Difficulties Scale (PPDS)	54
3.4	STATISTICAL ANALYSIS	57
3.5	RESEARCH PROPOSITIONS	58
3.6	SUMMARY	59

CHAPTER 4: RESULTS

4.1	INTRODUCTION	61
4.2	SAMPLE DEMOGRAPHICS	61
4.3	DESCRIPTIVE STATISTICS OF THE PSYCHOMETRIC INSTRUMENTS	63
4.3.1	The Social Anxiety Scale (SHY-SR)	63
4.3.2	The Job Characteristics Scale (JSC)	64
4.3.3	The Work Limitations Questionnaire (WLQ)	65
4.3.4	The Perceived Performance Difficulties Scale (PPDS)	66
4.4	THE PSYCHOMETRIC PROPERTIES OF THE MEASUREMENT INSTRUMENTS	66

4.4.1	The Social Anxiety Scale	67
4.4.2	The Job Characteristics Scale	68
4.4.3	The Work Limitations Questionnaire	68
4.4.4	The Perceived Performance Difficulties Scale	69
4.5	BETWEEN GROUP COMPARISONS FOR THE DIMENSIONS OF SOCIAL ANXIETY	70
4.6	SUB-SCALE INTERCORRELATIONS	74
4.6.1	The Social Anxiety Scale	74
4.6.2	The Job Characteristics Scale	75
4.6.3	The Work Limitations Questionnaire	77
4.6.4	The Perceived Performance Difficulties Scale	77
4.7	INTERCORRELATIONS BETWEEN SELECTED VARIABLES	77
4.7.1	The Relationship between Social Anxiety and Work Limitations	78
4.7.2	The Relationship between Social Anxiety Symptoms and Job Characteristics	79
4.7.3	The Relationship between Social Anxiety Symptoms and Perceived Performance Difficulties.	81
4.7.4	The Relationship between Job Characteristics and Perceived Performance Difficulties	83
4.7.5	The Relationship between Job Characteristics and Work Limitations	85
4.8	MULTIPLE REGRESSION RESULTS	86
4.8.1	Regression Analysis: Social Anxiety Symptoms and Work Limitations	86
4.8.2	Regression analysis: Social Anxiety Symptoms and Perceived performance difficulties	88
4.8.3	Regression analysis: Work Limitations and SHY-dimensions and JCS-dimensions	93
4.9	THE MODERATOR EFFECT OF JOB CHARACTERISTICS	99
4.10	RE-VISITING THE RESEARCH PROPOSITIONS	102

4.11	SUMMARY	105
------	---------	-----

CHAPTER 5: DISCUSSION

5.1	INTRODUCTION	106
5.2	DESCRIPTIVE STATISTICS	106
5.3	THE PSYCHOMETRIC PROPERTIES OF THE MEASUREMENT INSTRUMENTS	107
5.3.1	The Social Anxiety Scale	107
5.3.1	The Job Characteristics Scale	108
5.3.3	The Work Limitations Scale	109
5.3.4	The Perceived Performance Difficulties Scale	109
5.4	IMPACT OF SOCIO-DEMOGRAPHIC VARIABLES ON SOCIAL ANXIETY	110
5.5	RELATIONSHIPS BETWEEN SOCIAL ANXIETY SYMPTOMS, WORK LIMITATIONS, PERCEIVED WORK DIFFICULTIES AND JOB DEMANDS AND RESOURCES	111
5.5.1	Social Anxiety and Work Limitations	111
5.5.2	Social Anxiety and Perceived Performance Difficulties	114
5.5.3	Job Characteristics and Social Anxiety	116
5.5.4	Job Characteristics and Perceived Performance Difficulties	117
5.5.5	Job Characteristics and Work Limitations	118
5.5.6	Work Limitations, Social Anxiety and Job Characteristics	119
5.5.7	Perceived performance difficulties, Social anxiety and Job Characteristics	121
5.6	THE MODERATING EFFECT OF JOB CHARACTERISTICS IN THE RELATIONSHIP BETWEEN SOCIAL ANXIETY AND WORK LIMITATIONS AND PERCEIVED PERFORMANCE DIFFICULTIES	122
5.7	LIMITATIONS OF THIS STUDY	123
5.8	RECOMMENDATIONS	125

5.9	CONCLUSION	131
6.	REFERENCE LIST	133
	APPENDIX A	144

LIST OF TABLES

TABLE NUMBER	PAGE
Table 4.1: Race distribution	62
Table 4.2: Years of work of the sample	62
Table 4.3: Descriptive statistics of the sample	63
Table 4.4: Descriptive statistics for the SHY-SR	64
Table 4.5: Category distribution of respondents	64
Table 4.6: Descriptive statistics for the JSC	65
Table 4.7: Descriptive statistics for the WLQ	65
Table 4.8: Descriptive statistics for the PPD	66
Table 4.9: Reliability and item analysis for the SHY dimensions	67
Table 4.10: Reliability and item analysis for the total score	67
Table 4.11: Reliability and item analysis for the JCS	68
Table 4.12: Reliability and item analysis for the WLQ dimensions	68
Table 4.13: Reliability and item analysis for the WLQ total score	69
Table 4.14: Reliability and item analysis for the PPD dimensions	69
Table 4.15: Reliability and item analysis for the PPD total score	70
Table 4.16: Intercorrelations between the SHY dimensions	75
Table 4.17: Intercorrelations between JCS dimensions	75
Table 4.18: Factor loadings (Varimax normalized)	76
Table 4.19: Intercorrelations between the WLQ dimensions	77
Table 4.20: Intercorrelations between the PPDS dimensions	77
Table 4.21: Correlations between SHY and WLQ dimensions	78
Table 4.22: Correlations between SHY and JCS dimensions	80
Table 4.23: Correlations between SHY and PPDS dimensions	81
Table 4.24: Correlations between JCS and PPDS dimensions	84
Table 4.25: Correlations between JCS and WLQ dimensions	85
Table 4.26: Regression summary for WLQ Time Management as dependent variable and the SHY dimensions as predictors	86

Table 4.27: Regression summary for WLQ Physical as dependent variable and the SHY dimensions as predictors	87
Table 4.28: Regression summary for WLQ Mental-interpersonal as dependent variable and the SHY dimensions as predictors	87
Table 4.29: Regression summary for WLQ Output as dependent variable and the SHY dimensions as predictors.	88
Table 4.30: Regression summary for PPDS Leading and Deciding as dependent variable and the SHY dimensions as predictors	88
Table 4.31: Regression summary for PPDS Supporting and Cooperating as dependent variable and the SHY-dimensions as predictors	89
Table 4.32: Regression summary for PPDS Interacting and Presenting as dependent variable and the SHY-dimensions as predictors	89
Table 4.33: Regression summary for PPDS Analyzing and Interpreting as dependent variable and the SHY-dimensions as predictors	90
Table 4.34: Regression summary for PPDS Creating and Conceptualizing as dependent variable and the SHY-dimensions as predictors	90
Table 4.35: Regression summary for PPDS Organizing and Executing as dependent variable and the SHY-dimensions as predictors	91
Table 4.36: Regression summary for PPDS Adapting and Coping as dependent variable and the SHY-dimensions as predictors	92
Table 4.37: Regression summary for PPDS Enterprising and performing as dependent variable and the SHY-dimensions	

as predictors	92
Table 4.38: Regression summary for PPDS Total as dependent variable and the SHY-dimensions as predictors	92
Table 4.39: Regression summary for WLQ Time Management as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	93
Table 4.40: Regression summary for WLQ Physical as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	93
Table 4.41: Regression summary for WLQ Mental-Interpersonal as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	94
Table 4.42: Regression summary for WLQ Output as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	94
Table 4.43: Regression summary for PWD Leading and Deciding as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	95
Table 4.44: Regression summary for PWD Supporting and Cooperating as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	95
Table 4.45: Regression summary for PWD Interacting and Presenting as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	96
Table 4.46: Regression summary for PWD Analyzing and Interpreting as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	97
Table 4.47: Regression summary for PWD Creating and Conceptualizing as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	97
Table 4.48: Regression summary for PWD Organizing and Executing	

as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	98
Table 4.49: Regression summary for PWD Adapting and Coping as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	98
Table 4.50: Regression summary for PWD Enterprising and Performing as dependent variable and the SHY-dimensions and JCS-dimensions as predictors	99
Table 4.51: Moderated multiple regression analysis with SHY_IP as independent variable, JCS GO as moderator and PWD Leading and Deciding as dependent variable	100
Table 4.52: Moderated multiple regression analysis with SHY_IP as independent variable, JCS GO as moderator and PWD Analyzing and Interpreting as dependent variable	100
Table 4.53: Moderated multiple regression analysis with SHY_IP as independent variable, JCS GO as moderator and PPD total as dependent variable	101
Table 4.54: Moderated multiple regression analysis with SHY_BISS as independent variable, JCS JS as moderator and PPD Leading and Deciding as dependent variable	102
Table 4.55: Moderated multiple regression analysis with SHY_BISS as independent variable, JCS JS as moderator and PPD Interacting and Presenting as dependent variable	102

LIST OF FIGURES

FIGURE NUMBER	PAGE
Figure 1.1: Model of anxiety	29
Figure 4.1: Gender differences on the SHY_IP dimension	71
Figure 4.2: Gender differences on the SHY_SAPF dimension	72
Figure 4.3: Marital status differences on the SHY_IP dimension	73
Figure 4.4: Marital status differences on the SHY_SAPF dimension	74

LIST OF APPENDICES

APPENDIX NUMBER	PAGE
Appendix A: Moderator effect of Job Characteristics tables	144

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The happy/productive worker thesis has long been a question of interest and debate among practitioners and organizational scientists. According to this “Holy Grail” of organisational psychology research, workers who are happy at work should have higher job performance. Those employees who are less happy at work are assumed to be less productive. In various studies, happiness was measured in terms of the worker’s job satisfaction and positive correlations were found between job satisfaction and performance. In a qualitative review by Cropanzano and Wright (2001), happiness was measured as psychological well-being. Evidence of a positive correlation was found between psychological well-being and job performance. These findings were consistent across longitudinal designs, quasi-experimental and cross sectional studies (Wright, Bonett & Cropanzano, 2007).

A possibility therefore exists that there are at least two happy/productive worker theses, wherein employee happiness is operationalised as either job satisfaction or psychological well-being. Job satisfaction is however restricted to a person’s job, while psychological well-being is a broader construct, referring to aspects of one’s life both on and off the job (Wright et al., 2007).

Psychological well-being can be defined in terms of the overall effectiveness of an individual’s psychological functioning (Wright, 2005). Job satisfaction has significant affective and cognitive components, whilst psychological well-being is primarily an affective or emotional experience. When the circumflex model of emotion is used as the theoretical framework, psychological well-being is regarded as representing the pleasantness or hedonic dimension of individual feelings. Psychological well-being is typically operationalised as both positive and negative emotional states on one single axis. The positive pole representing

pleasantness-based descriptors such as “joyous”, and the negative pole representing descriptors such as “sad” and “annoyed”. Therefore, to be high on well-being is to concurrently be low on the negative emotion and high on the positive emotion. A number of prominent researchers have in fact equated well-being with happiness (Wright et al., 2007).

A few studies have found positive relationships between psychological well-being and performance. Staw and Barsade (1993) found that MBA students high on psychological well-being received higher performance ratings, demonstrated more effective social behaviours and were better decision-makers. Studies by Cropanzano and Wright (1999) also found positive correlations between psychological well-being and performance ratings. It can therefore be argued that positive interventions may be utilised to enhance employees’ well-being and to create a happy workforce. This increase in employee well-being is hypothesized to increase employee performance and hence, organizational performance.

To complicate matters, however, the nature of work has changed dramatically over the last decade. There is an increase in the utilisation of information and communication technology, globalisation of the economy, change in the structure of the workforce, increasing flexibility of work, and application of new production concepts, to name but a few. The nature of work has shifted from manual demands to more emotional and mental demands (Rothmann, Mostert & Strydom, 2006). In addition, South African organisations have had to face the challenge of integrating and managing a very diverse workforce (Vorster, Olckers, Buys & Schaap, 2005).

Various empirical studies in the literature have supported the view that work environments have a causal influence on psychological and physical health. These studies also demonstrated that perceptions of the work environment mediate the relationship of objective work characteristics with health-related

outcomes. These studies also found that individual differences play a key role as determinants of the nature of responses to work (Parkes, 1990).

Several individual differences have been found to play either a moderating or mediating role in the work-stress process. Examples of such differences are personality traits, work expectations and health-related factors. People also demonstrate different coping strategies when faced with work-related obstacles (Parkes, 1990). It can therefore be argued that the perceptions of one's working conditions are more important than the working conditions itself. For some, a certain degree of job demands will be manageable, but for others, the same amount may be uncontrollable, impacting mental health negatively and decreasing performance.

The Vitamin model of Warr (as cited in Rothmann & Jordaan, 2006), conceptualises mental health in terms of three dimensions: pleasure/displeasure, anxiety/comfort, and depression/enthusiasm. These dimensions can be affected by organisational factors such as opportunity for control, opportunity for skill use, variety, feedback, job security, social support, good working conditions and occupational prestige. A workplace consists of many psychosocial aspects that may either be protective or hazardous for mental health (Stansfeld, Clark, Caldwell, Rodgers, & Power, 2008)

Working conditions (job demands and job resources) represent two domains of environmental factors that may be important in terms of its role in the pathways to mental disorders (Plaisier et al., 2007). According to Rusli, Edimansyah and Naing (2008), the influence of working conditions on health status has been comprehensively investigated over the last two decades. Work characteristics widely investigated include job demand, job control and social support. The strain model of Rusli et al., (2008) proposes that high job demands and low job control may predict unfavourable health effects such as fatigue, anxiety, depression and physical illness. The iso-strain model, an extension of this

model, includes social isolation as a variable and predicts that the most harmful jobs (in terms of health) occur when high job strain is combined with low levels of social support at work (Rusli et al., 2008).

Depression, stress and anxiety have been recognized as outcomes in various high strain work environments. Plaiser et al. (cited in Rusli et al., 2008), have suggested that high strain working conditions cause stress, and may therefore contribute to the development of anxiety and depression in the employees. A recent study by Melchior, Caspi, Milne, Danese, Poulton, and Moffitt (2007) found a relationship between high job demands and the risk of depression and anxiety. The risk for depression and anxiety was found to be twice as high in working environments characterized by high job demands than in low job demand conditions. The study found a relationship between high job demands and depression and generalized anxiety disorder. From examination of the case histories of patients, it was found that work stress appeared to precipitate the occurrence of psychiatric disorder in previously-healthy individuals.

A study by Sanne, Mykletun, Dahl, Moen and Tell (2005), demonstrated that anxiety and depression levels increased linearly and considerably with increasing demands, and with decreasing support scores. Another study that was performed by Plaisier et al. (2007) indicated that better working conditions (lower psychological demands) were associated with a decrease in the risk of anxiety disorders.

According to the European Foundation for the Improvement of Living and Working Conditions (as cited in Melchior et al., 2007), 30-40% of workers in the European Union are exposed to significant work stress. Stressful working conditions are associated with poor mental health, and there is an increasing concern that such conditions may amplify the population burden of psychiatric morbidity (Melchior et al., 2007). Past research has explored the relationship between psychological distress and job demands, job control and social support.

However, the relationship between these working conditions and psychiatric disorders and their association, in turn, with health-care and lost productivity is not known (Melchior et al., 2007). Yet it is necessary to have a clear understanding of the impact of work characteristics, such as job demands and job resources, on the mental health and well-being of employees.

Among psychiatric disorders, anxiety disorders are common in the general population (Baumeister & Härter, 2007; Stein & Stein, 2008; Ruscio et al., 2008). These disorders include specific phobias, social phobia (also known as social anxiety disorder), agoraphobia, panic disorder, generalized anxiety, obsessive compulsive disorder (OCD), post traumatic stress disorder (PTSD), hypochondriasis and somatisation disorders. Empirical evidence on the relationship between anxiety disorders and work-related factors is limited (Linden & Muschalla, 2007). However, there is growing evidence which indicates that the workplace may contribute to the development of these anxiety disorders (Linden & Muschalla, 2007). Evidence also indicates that these disorders can impair the ability of employees to work productively (Linden & Muschalla, 2007). Work-related anxiety problems can take the form of phobias, social anxiety, generalised anxiety, fears of insufficiency, or hypochondriacal anxiety in relation to work, working conditions, or co-workers and supervisors.

Social anxiety disorder is one anxiety disorder associated with long-term impairment and disability. Environmental and genetic influences may be important in the etiology and persistence of social phobia (Stein & Stein, 2008). An example of an environmental influence is high job strain, which may increase the risk of symptoms (Stansfield, Blackmore, Zagorski, Munce, Stewart & Weller, 2008). Atypical and sub-threshold manifestations of social phobia tend to be under-recognised yet are clearly associated with significant impairments and other adverse outcomes (Fehm, Beesdo, Jacobi & Fiedler, 2008). Thus, managers need to be aware of the more subtle presentations of social phobia, because if symptoms are detected early, steps may be taken to decrease work

limitations. This can be achieved through early treatment, the use of employee assistance programmes (EAP's), or developing a climate that could promote recovery (Dewa & Lin, 2000). In other words, sub-threshold symptoms also limit work performance and not only the full blown clinical social anxiety disorder. There may be employees with the potential to perform at high levels, whose social anxiety symptoms may be preventing it. If this is recognised and treated, they may perform better, ultimately leading to the higher profitability of the organisation. Previous research indicated that the burden of social anxiety and the reduction of work productivity in sub-threshold social anxiety resemble those of the full blown disorder (Acarturk, Smit, de Graaf, van Straten, ten Have & Cuijpers, 2009). It is therefore vital to not only take social anxiety into consideration, but to also to focus on individuals with sub-threshold social anxiety.

Given the forgoing argument, the research initiating question for the current research project is: To what extent does the social anxiety spectrum influence the performance of management employees and how could the disorder be managed in the workplace.

1.2 SUMMARY

The main purpose of this chapter was to provide an overview of the rationale for this study. There has been an increased recognition of the reciprocal nature of the association between mental health and work characteristics and this was highlighted in the introduction. The need for further investigation of mental disorders in the workplace was singled out. The next chapter will provide a comprehensive overview of mental health and well-being within the work context. Significant literature and previous studies will be discussed in order to provide a framework and evidence for the purpose of this study.

CHAPTER 2

THEORETICAL FRAMEWORK

2.1 INTRODUCTION

According to Andrea, Bultmann, van Amelsvoort and Kant (2009), to date, very little is known about the prevalence of anxiety and depression among the working population, as well as the possible risk factors for the development of anxiety and depression in the working population. Therefore, more research is needed within this area. Researching the contributors to mental disorder symptoms and negative well-being states, will enable one to develop individual and organisational interventions. These interventions may be focused on either by simply increasing the recognition of mental health within the workplace, and hence increasing the treatment thereof, or it may include altering the work characteristics and environment of employees.

A few studies in the literature have proven a causal influence between well-being or psychological health and performance. These studies have also demonstrated that work stressors affect that relationship (Daniels & Harris, 2000). It is therefore necessary to further investigate these relationships.

2.2 PSYCHOLOGICAL WELL-BEING IN THE WORKPLACE

According to the Health and Safety Executive (2008), "...mental well-being is a dynamic state in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others and contribute to their community. It is enhanced when an individual is able to fulfil their personal and social goals and achieve a sense of purpose in society" (2008, p.112).

Hart and Cooper (2001) argue that well-being consists of both emotional and cognitive components. The emotional component consists of two independent dimensions, namely positive and negative affect. Within the organisational

health approach, these two components are called morale and distress respectively and can operate either on the individual or workgroup level. The negative affect dimension is defined in terms of the subjective experience of distress and includes emotional states such as guilt, anxiety and depression. The cognitive component is an attitudinal indicator of well-being such as job satisfaction (Cotton & Hart, 2003).

Theories have been proposed that the cognitive component of well-being more strongly influences judgement-related outcomes in the workplace, such as the decision to resign. The emotional component is more likely to be related to emotive-related behaviours such as impulsive behaviours, withdrawal and absenteeism. Research has demonstrated that the two emotional components of well-being (positive and negative affect) independently contribute to overall employee well-being. According to the organisational health framework, organisational characteristics strongly influence individual well-being (Cotton & Hart, 2003).

Individuals may be capable of performing adequately, even when they experience negative affective well-being (anxiety, depression, anger, boredom), but may experience significant distress while performing those roles when it prevents them from achieving their optimal performance and abilities. Through the development of interventions one may therefore alter job characteristics to increase perceived performance and reduce performance difficulties, which may ultimately lead to an increase in employee performance in general.

There is evidence in the literature that affective well-being influences work performance and that the evidence thereof is stronger than for the effect of job characteristics on performance. Various studies have also demonstrated that after controlling for initial performance, well-being predicts future performance. It also appears that the more enduring aspects of well-being are associated with work performance (Daniels & Harris, 2000).

Warr (2002) also conducted research on well-being in the workplace. He developed a model which can be used to investigate work-related well-being along three dimensions, namely pleasure-displeasure, anxiety-comfort, and enthusiasm-depression. The first dimension, pleasure-displeasure, refers to a person's job satisfaction. On the enthusiasm-depression dimension, depression is a result of low pleasure and low mental arousal. On the anxiety-discomfort dimension, low pleasure and high mental arousal causes feelings of anxiety, whereas comfort is the result of low arousal and pleasure. The combination of low pleasure and high mental arousal will cause stress (anxiety). According to Warr (2002), individuals experiencing such anxiety may have limited commitment, energy and aspirations.

2.3 MENTAL HEALTH IN THE WORKPLACE

During the early development of industrial psychology, there was some research on mental health in the workplace, often referred to as mental hygiene. Most of this research focused on the negative effects of mentally unstable employees. Early management theorists believed that the cause of job dissatisfaction was mental disintegration. It was also believed that workers turned to labour unions, not because of poor working conditions and compensation, but because of their emotional maladjustment. Personality instruments such as the Humm-Wadsworth Temperament Scale was used by management to screen such 'mentally unstable' employees out (Zickar, 2003). The early industrial psychology research on mental health in the workplace investigated the effect of pre-existing mental health problems and how it influenced workplace behaviour. Until Kornhauser's late career studies, very few research studies were conducted on the effects of working conditions on employees' mental health (Zickar, 2003).

Mental disorders are rapidly becoming one of the leading causes of disability in the world. The WHO predicts that it will become the second most important cause of global disease burden in the next century (Dewa & Lin, 2000). The

effects of serious mental illness (e.g. schizophrenia) on work performance and absenteeism is usually obvious. However, less serious mental disorders (e.g. anxiety disorders) may have a more subtle impact on performance and productivity than more serious mental or physical illness (Sanderson & Andrews, 2006; Ormel, Petukhova, Chatterji, Aguilar-Gaxiola, Alonso, Angermeyer, Bromet, Burger, Demyttenaere, de Girolamo, Haro, Hwang, Karam, Kawakami, Lépine, Medina-Mora, Posada-Villa, Sampson, Scott, Ustün, Von Korff, Williams, Zhang & Kessler, 2008). These therefore tend to be under-recognised and inadequately managed in many organisations (Kessler, Merikangas & Wang, 2008). In addition, evidence indicates that emotional and mental conditions are one of the fastest growing reasons why workers apply for long-term disability. A less serious mental disorder may therefore have a less immediate effect on the workplace, but in the long term may prove more costly to the organization (Dewa & Lin, 2000). Further, there is data to suggest that successful treatment can reduce work impairments and that any gains in productivity following treatment far outweigh direct treatment costs (Simon, Barber, Birnbaum, Frank, Greenberg, Rose, Wang & Kessler, 2001).

There has been an increased recognition of the reciprocal nature of the association between mental health and work characteristics. Mental health problems are common and may adversely influence work performance, and conversely poor working conditions may have a negative effect on mental health. Studies indicate that in North America, from 20-30% of adults between the ages of 18 and 64 years will suffer from at least one psychiatric disorder in any 12 month period (Dewa & Lin, 2000). Among South Africans, approximately 30% meet the criteria for a psychiatric disorder at some time in their lives, while 15.8% meet the criteria for an anxiety disorder (Stein et al., 2008). In addition, several studies have documented that people with mental disorders have higher levels of functional disability compared to people without any mental disorders. Functional disability can be defined as a difficulty in performing sensory and physical

activities such as seeing, hearing, speaking lifting/carrying or grasping small things (Kessler & Frank, 1997; Ormel et al., 2008).

2.4 SOCIAL ANXIETY

Angermeyer, Bruffaerts, Bryson, de Graaf, Gasquet, Brugha, Girolamo, Demyttenaere, Haro, Katz, Kessler, Kovess, Lepine, Omel, Ploidori, Russo and Vilagut (2001), reported a considerable burden of untreated mental disorders within the community. In their work, they reported that people with one or more mental disorder have a decreased functional ability compared to people with no mental disorder. Functional disability due to mental disorders had an impact on personal well-being, social relationships and work productivity. Social anxiety disorder was rated among the five mental disorders with the strongest impact on functional disability. Since social anxiety was first described, recognition and treatment has improved, however, too often this disorder is still mistakenly perceived as shyness (Lepine & Pelissolo, 2000).

2.4.1 Defining Social Anxiety

The term anxiety was translated from Freud's (1836) "angst", which he used to describe the combined effect of negative affect (emotion) and psychological arousal. This basically refers to anxiety as a "...evolved defense system that has served through eons of time to protect organisms from survival threats" (Ohman, 2000, p. 227). This inter relationship consists of both behavioural and physiological elements that are linked to an appraisal of the specific situation (either perceived or real), elicited responses, as well as the motivations surrounding it (Baruch & Lambert, 2006).

Social anxiety is a common, highly co-morbid, poorly understood and relatively understudied condition. A co-morbid disorder is when the presence of one or more disorders (or diseases) in addition to the primary disorder exist (Voci, Beitchman, Brownlie & Wilson, 2006). Over twenty years ago, Liebowitz, Gorman, Fyer and Klein (1985) described social anxiety as the "...neglected

anxiety disorder". Today, social anxiety disorder is the common term for the condition, as used by the International Consensus Group on Depression and Anxiety (Lepine & Pelissolo, 2000).

Social anxiety disorder, also known as social phobia, is classified in the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV; panel 1) and in the International Classification of Diseases 10 (ICD-10; panel 2) as a phobic (anxiety) disorder, alongside agoraphobia and specific phobias (from which it was distinguished only 40 years ago) (Stein & Stein, 2008).

Social anxiety refers to "a persistent fear of one or more situations (socially phobic situations) in which the person is exposed to unfamiliar people or to possible scrutiny by others and fears that he or she may do something or act in a way that will be humiliating or embarrassing" (American Psychiatric Association, 1994, p. 416). Social phobia was introduced into the DSM-III in 1980. It can similarly be described as a chronic and debilitating fear of social interaction, where socially anxious individuals fear negative evaluation from others (Lepine & Pelissolo, 2000).

2.4.2 Social Anxiety Symptoms on a Continuum

The vast majority of research suggests that social anxiety exists on a continuum (i.e. social anxiety spectrum) - from the absence of social fear, through ordinary shyness and mild social anxiety, to more intense, and functionally impairing social fears, including generalized social anxiety disorder (McNeil, 2001; Stein, 2000). According to some research its disease burden is related to the number of social fears, rather than to the distinct types of fear (Acarturk et al., 2009).

In a study by Zhang, Ross and Davidson (2004), a decrease in the quality of life was not only found in individuals with social anxiety disorder, but also in those with sub-threshold social anxiety disorder, who had some social anxiety symptoms, but insufficient to meet the full diagnostic criteria. Dell'Osso et al.,

(2003) have argued that social anxiety should rather be described as a continuum of severity than a distinct disorder which is based on a subjectively determined threshold. Results from their community studies indicate that the boundary of social anxiety disorder should be determined by its severity, rather than by qualitative distinctions, thus supporting their continuum theory.

Davidson, Dana, Hughes, George and Blazer (1994) also found that individuals with sub-threshold social anxiety may be as equally burdened as people meeting the social anxiety disorder criteria. It is possible that people may have one or two symptoms of social anxiety, without a third symptom and therefore fail to meet the DSM-III diagnostic criteria for social anxiety, but may still be troubled enough to warrant diagnosis and treatment. They found that individuals with sub-threshold social anxiety were more similar to social anxiety sufferers than normal controls.

Previous research indicated that the burden of social anxiety and the reduction of work productivity in sub-threshold social anxiety resemble those of the full blown disorder (Acarturk et al., 2009). It is therefore vital to not only take social anxiety into consideration, but to also include individuals with sub-threshold social anxiety within this study.

2.4.3 Measurement of Social Anxiety Symptoms

There are numerous methods for the assessment of the spectrum of social anxiety. These include interviews, behavioural observation, self-report measures, and physiological measures. In both research and clinical settings, the use of self-report measures has become most widely used. These measures assess the subjective response system (Johnson, Inderbitzen-Nolan & Anderson, 2006).

Various measurement instruments exist for the measurement of social anxiety. The Social Phobia Inventory (SPIN) is commonly used in the literature and is a

17-item self-report instrument to measure social anxiety symptoms. The SPIN is a Likert-type scale (1-5). The SPIN measures three symptom dimensions, namely fear, avoidance, and physiological arousal (Carleton, Collimore, Asmundson, McCabe, Rowa & Antony, 2010).

Social anxiety can also be assessed with the use of the Social Phobia and Anxiety Inventory (SPAI) Social Phobia Subscale. The SPAI is an empirically developed self-report measurement instrument. The SPAI measures somatic, cognitive, and behavioural responses to potentially fear producing situations and measures the degree of impairment or distress as a result of those experiences on a Likert scale (Hayward, Wilson, Lagle, Kraemer, Killen & Taylor, 2008).

The Mini International Neuropsychiatric Interview (MINI) is a brief (15 minutes) structured interview that can also be used to assess social anxiety symptoms. This interview allows for the diagnosis of Axis I disorders, according to the ICD-10 and DSM-IV criteria, as well as anti-social personality disorder (Dell'Osso, Rucci, Cassano, Maser, Endicott, Shear, Sarno, Saettoni, Grochocinski & Frank, 2002).

The Liebowitz Social Anxiety Scale (LSAS) is one of the most commonly applied scales for social anxiety disorder. This scale measures the clinical severity of social anxiety symptoms on a Likert-type scale (Dell'Osso et al., 2002).

The Social-Anxiety Spectrum Self-report instrument was developed to not only measures the prototypic symptoms of social anxiety, as characterized by the DSM, but also to measure atypical presentations. The Social Anxiety Spectrum Self-report (SHY-SR) was developed from the Social Anxiety Spectrum interview (SCI-SHY) and measures social anxiety symptoms on a scale, ranging from shyness to the full blown disorder (Berrocal, Moreno, Montero, Rando, Rucci & Cassano, 2006).

2.4.4 Prevalence of Social Anxiety Disorder in the Community

Anxiety disorders are the most prevalent class of mental disorders, with a 12 month occurrence within the USA community of about 18%. Social anxiety disorder is the most common anxiety disorder, and was rated as the third most common mental health disorder, after depression and alcoholism, in the National Co-morbidity Study in the United States (Merikangas, Avenevoli, Acharyya, Zhang, & Angst, 2002). Social anxiety is a significant mental health problem, affecting approximately 13,3% of the general USA population at some point during their lifespan (Bruch & Fallon, 2003).

The National Co-morbidity Survey-Replication provides prevalence estimates of a 12-month duration and lifetime DSM-IV social anxiety disorder as 7.1% and 12.1% respectively, with a higher prevalence among females (Stein & Stein, 2008).

The South African Stress and Health (SASH) study is the first large population-based mental health epidemiological survey in South Africa. It was carried out as part of the World Health Organization World Mental Health (WMH) Survey Initiative. Data from a nationally representative sample of 4351 adults aged 18 and above years of age of all races and ethnic groups living in households and single-sex migrant labourer group quarters (hostels) in South Africa were analysed (Herman, Stein, Seedat, Heeringa, Moomal & Williams, 2009).

The prevalence rate for anxiety disorders were the highest in the Free State (21.5%) and second highest in the Western Cape (18.9%). Mood and anxiety disorders were more common among women. Anxiety disorders were less common among females, older than 65 years, and with elementary education (especially among 35 – 49 year-olds) (Herman et al., 2009).

This study indicated that South Africa has a relatively high 12-month prevalence rate of anxiety disorders, when compared to other countries that participated in

the WMH survey. Only two African countries participated in the WMH Survey, namely South Africa and Nigeria. Compared with the Nigerians, twice as many South Africans had lifetime anxiety disorders (Herman et al., 2009).

A range of prevalence rates for social anxiety is reported in the literature. These studies differ in terms of the diagnostic criteria used for a positive diagnosis. The diagnostic criteria may differ with respect to the number of anxiety-causing situations and the degree of impairment required for a positive diagnosis. Lower rates tend to be reported by studies relying on the Diagnostic and Statistical Manual of Mental Disorders, version 3 (DSM-III), than studies relying on the DSM-III revised edition (DSM-III-R) or DSM, version 4 (DSM-IV) criteria (Lepine & Pelissolo).

The National Institute of Mental Health Epidemiological Catchment Area study used the DSM-III criteria and indicated a lifetime rate for social anxiety disorder ranging from 1.8% to 3.2%. A cross-national epidemiological study, also using the DSM-III showed lifetime prevalence rates of 2% to 4% (Lepine & Pelissolo). However, a community study in Switzerland used the DSM-III-R and reported a lifetime prevalence rate of 16% (Wacker, Mullijans, Klein & Battegay, 1992). The National Co-morbidity Survey of the US used the Composite International Diagnostic Interview (CIDI) and DSM-III-R and reported a lifetime prevalence rate of 13.3% (Magee, Eaton, Wittchen, McGonagle & Kessler, 1996). The Early Developmental Stages of Psychopathology (EDSP) study (Wittchen, Nelson & Kessler, 1999) was the first community study of the prevalence of social anxiety disorder that used the DSM-IV criteria. This longitudinal survey consisted of 3021 individuals, ranging from 14 – 24 years and has shown a lifetime rate of social anxiety disorder of 3.5%. They also included the “sub-threshold” disorder (without impairment criteria) and the lifetime prevalence rate increased to 7.3%. These subjects with the sub-threshold disease did not fulfill all of the criteria required for a positive diagnosis of social anxiety disorder, however they were considered to experience an abnormally high level of social anxiety symptoms.

Several factors may produce reasons to believe that the prevalence rates of psychiatric disorders in South Africa would be reasonably high. Various stressors from the past, such as racial discrimination and political violence, may contribute to the prevalence of the disorders and high rates of gender inequality and criminal violence are reportedly a feature in the present. Poverty remains a significant stressor and contributor to psychiatric disorders in low income countries. On the other hand, the nature of South Africa's society may create a more complex picture. The socio-economic history of the country has resulted in distinct socio-economic profiles for different ethnic groups, with the White population generally being advantaged and the Black population generally disadvantaged. Such socio-economic privilege may act as a buffer against stressors and reduce the prevalence of psychiatric disorders (Stein, Seedat, Herman, Moomal, Heeringa, Kessler & Williams, 2008).

A study by Stein et al. (2008) investigated the lifetime prevalence of psychiatric disorders in South Africa. The sample consisted of 4351 adult South Africans living in households or hostel quarters. This sample did not include individuals from institutions nor did it include the military. The study revealed that the lifetime prevalence estimate of any psychiatric disorder was 30.3%, with 11.2% of respondents having two and 3.5% having three or more disorders. The most prevalent class of disorder was estimated to be anxiety disorders (15.8%). Lifetime prevalence of social anxiety was found to be 2.8%. This is however not as high a prevalence as in the USA, where approximately half of the population meets the criteria for one or more DSM IV/CIDI disorders. This estimate is however considerably higher than previous estimates, as well as the majority of other countries that have participated in the first wave of the WHO World Mental Health Survey Initiative.

A community prevalence study of psychiatric morbidity in a rural Coloured village by Rumble, Swartz, Parry and Zwarenstein (1996) found a prevalence of

psychiatric morbidity of 27.1% with the majority of cases diagnosed as depressive or anxiety disorder.

A prevalence study of social anxiety among Italian high school students measured social anxiety on a continuum from shyness to the full blown disorder. This study provided the prevalence rates of mild, moderate and severe symptoms of social anxiety. Five hundred and twenty students were assessed with the Social Anxiety Spectrum Self-Report (SHY-SR). They applied two cut-off scores, the large majority (73.3%) of subjects were classified as low scorers, 9% as medium scorers and 17.7% as high scorers. Both high and medium scorers reported fears related to social situations. High scorers displayed more functional impairment defined by avoidance and school difficulties, but medium scorers also reported it to a significant extent (Dell'Osso et al., 2003).

According to Stein and Stein (2008), the National Co-morbidity Survey-Replication provides prevalence estimates of 12-month and lifetime DSM-IV social anxiety disorder as 7.1% and 12% respectively. Studies in other Western nations provide similar estimates. Studies in countries with strikingly different cultures also noted evidence of social anxiety disorder. In the Eastern cultures, the syndrome of *taijin kyofusho*, is a form of social anxiety. This syndrome is marked by social-evaluative concerns that involve the belief that the person makes other people uncomfortable (Stein & Stein, 2008). Voci et al. (2006) stated that social anxiety disorder is a common, highly co-morbid with other conditions, poorly understood and relatively unstudied condition.

2.4.5 Subtypes of Social Anxiety Disorder

According to Iwase et al., (2000) social phobia was divided into two categories in 1987 by the DSM-III-R – the generalized type and the non-generalized type. The diagnosis of generalized type is given when the phobic situation includes most social situations and the non-generalized type refers to when it is restricted to only certain social situations (Iwase et al., 2000). Usually non-generalized social

anxiety is not disabling although it may lead to under-achievement at work or school (Stein & Chavira, 1998).

Within recent literature, there is relative consensus about the existence of at least two different subtypes of the disorder: generalized social anxiety disorder (GSAD) and performance-focused social anxiety disorder (PFSAD) (Pallanti, Pampaloni, Rucci, Maina & Mauri, 2008). The DSM-IV-TR does not recognize the PFSAD as a specific subtype; however, the fear of a limited number of social situations has recurrently been described in the literature. There are two different approaches to research on social anxiety subtypes: quantitative and qualitative. The quantitative approach interprets the heterogeneity within social phobia as a continuum. GSAD is the most severe form and PFSAD the less severe/interfering form. The qualitative approach focuses on the type of feared situation. Individuals with PFSAD only fear performance-based situations (e.g., writing in public) and individuals with GSAD may fear performance-based social situations, but can be distinguished by their fear of social situations involving interactions with others (Pallanti et al., 2008).

Although social anxiety disorder was divided into these two sub-types, no evidence was found in community studies with respect to the number of the social fears and the outcomes to support the distinction. In a study by Stein, Ruscio, Lee, Petukhova, Alonso, Andrade, Benjet, Bromet, Demyttenaere, Florescu, de Girolamo, de Graaf, Gureje, He, Hinkov, Hu, Iwata, Karam, Lepine, Matschinger, Oakley Browne, Posada-Villa, Sagar, Williams and Kessler (2009) no evidence was found to support the sub-typing of the social anxiety disorder on the basis of either number of social fears or number of performance fears versus the number of interactional fears.

2.4.6 Antecedents, Onset and Course of Social Anxiety Disorder

Evidence has been found that both individual and parental predictors for social anxiety disorder exist. Within the individual domain, behavioral inhibition and shy temperament both increase risk. However, the majority of individuals with symptoms or the disorder, does not have histories of shyness or inhibited temperament, highlighting the need to identify other factors which may contribute to the development of SAD. A range of parental factors have also been identified, for example parental psychopathology, including anxiety disorders and depression. In addition, the quality of the parent-child relationship and an over-protective parenting style have both been important predictors, as well as parent enhancement of avoidant responses (Hayward, Wilson, Lagle, Kraemer, Killen & Taylor, 2008). Knappe, Beesdo, Fehm, Lieb and Wittchen (2009) also found that parental psychopathology and negative parental styles are predictors for social anxiety disorder, as well as for sub-threshold social anxiety.

Other factors that have been identified include peer rejection during adolescence that may create or exacerbate social anxiety for those with inhibited temperament. Further, neuron-hormonal and genetic factors are also found to contribute to the development of SAD (Hayward et al., 2008).

The onset of social anxiety disorder typically occurs during adolescence. Social anxiety disorder hardly ever develops after the age of 25 years. Studies have indicated that two peaks of the onset can usually be identified, in the 0 – 5year age group and in the 11 – 15 year age group (Lepine & Pelissolo, 2000). According to Stein and Stein (2008) social anxiety has a very early onset, with many cases, especially those of the generalized type, beginning in childhood or early adolescence. In a study by Chavira, Stein, Bailey and Stein (2005) the prevalence of social anxiety in youth (6.8%) is similar to that reported for adults.

Social anxiety disorder is a chronic condition that will rarely remit spontaneously. The Harvard Brown Anxiety Research Project was a non-interventional study that

regularly assessed subjects with social anxiety disorder using a Psychiatry Status Rating scale. After one year of assessment, 39% of patients experienced minimal remission (fulfilling all diagnostic criteria and exhibiting disability without major impairment), 19% underwent partial remission, and only 7% of patients appeared to have undergone complete remission of symptoms. The data of the study confirms that, if left untreated, social anxiety disorder has a long term morbidity, with a low probability of spontaneous remission (Lepine & Pelissomo, 2000).

Some critics seem to have argued that social anxiety disorder is merely a pathological label for shyness. Studies have, however, indicated that only a few shy children experience extreme shyness that persevered up until adolescence and into adulthood, and which then develops into social anxiety. Other studies have demonstrated that more or less 50% of adults with social anxiety disorder do not report excessive shyness in childhood (Stein & Stein, 2008). It is, therefore, reasonable to infer that shyness is neither a prerequisite for, nor synonymous with social anxiety disorder (Stein & Stein, 2008).

2.4.7 Characteristics of Social Anxiety Symptoms

The defining features of social anxiety include somatic symptoms (e.g., trembling, sweating, blushing), cognitive symptoms (e.g., fear of negative evaluation), and behavioral symptoms (e.g., avoidance of social situations) (Heiser, Turner, Beidel & Robertson-Nay, 2009). These symptoms can be divided into interpersonal and intrapersonal characteristics.

2.4.7.1 Intrapersonal characteristics

Evidence of discomfort may not always be observable, but these individuals invariably experience strong physical and emotional discomfort when in social settings (Stein & Stein, 2008). Social contact is characterized by intense anxiety feelings, commonly expressed as palpitations, sweating and blushing, which may

lead to either avoidance, or endurance of the feared situation with extreme distress (Lepine & Pelissolo, 2000).

A concern over negative evaluation is an important aspect of social anxiety. The Clark and Wells (1995) model of social anxiety proposes that cognitive processes take place before a socially anxious individual enters a feared social event. These processes play an integral part in the maintenance of social anxiety (Vassilopoulos, 2008). According to this model, individuals who are socially anxious are inclined to review in detail what might happen prior to an event. Such an appraisal of the awaiting situation causes great anxiety. Their thoughts become filled with past failures, negative images of themselves and predictions of poor performance. These negative thoughts may cause the anxious person to completely avoid the feared situation. The model further states that socially anxious individuals are inclined to make use of unconstructive coping mechanisms to reduce the risk of negative evaluation by others. These behaviours are generally counter-productive such as the avoidance of interpersonal communication and isolation. A study by Vassilopoulos (2008), found a significant association between social anxiety and anticipatory processing. Anticipatory processing includes recurrent and intrusive thoughts that may hinder concentration and increase anxiety (Vassilopoulos, 2008). Research conducted by Hinrichsen and Clark (2003) found that high socially anxious individuals are more likely than low socially anxious individuals to:

- dwell on ways of avoiding or escaping the social situation;
- catastrophize about what might happen in the situation;
- engage in anticipatory safety behaviours;
- generate negative, distorted observer-perspective images about how they might appear in the situation.

These behaviours characteristic of socially anxious individuals could potentially all contribute to a decrease in productivity.

2.4.7.2 Interpersonal characteristics

Characteristics of socially anxious individuals include typical shyness when meeting new people, and quietness and withdrawal in unfamiliar groups. They typically desire the company of others, but withdraw and exclude themselves because of their fear of being humiliated, found to be unlikable, boring or stupid. As a result, they normally avoid speaking in public, expressing opinions and interacting with their peers. This may lead to other people perceiving them as unsociable, or they may mistakenly be labeled as 'snobs' (Stein & Stein, 2008).

According to Stein and Chavira (1998), the most commonly feared situations of people with social anxiety symptoms are performance situations, such as writing in front of others and public speaking. Some sufferers however fear any form of social interaction, including attending a party or speaking to a teacher or employer. The main feature of social anxiety is a fear of negative evaluation (Stein & Chavira, 1998).

Socially anxious individuals are at greater risk for morbidity and impairment. Distress and avoidance of social situations contribute to the impairment in social functioning and an increased sense of social isolation (Voci et al., 2006). Social anxiety therefore affects all aspects of a sufferer's life – hindering the building and maintenance of social, personal and work relationships. This may commonly lead to isolation, depression and in severe cases, even suicide (Lepine & Pelissolo, 2000).

People suffering from social anxiety fear social gatherings such as meetings, formal performance situations, as well as speaking in front of people (Linden & Muschalle, 2007). Other feared situations include eating in public, writing in front of others, participating in social situations, taking exams, and any situation where they might be the centre of attention (Lepine & Pelissolo, 2000). These are only a few of the situations feared by them, but it is evident that the working

environment must pose many anxieties for these people (Linden & Muschalle, 2007).

2.4.8 Shyness vs Social Anxiety

From the time social anxiety was introduced as a psychiatric disorder in the *Diagnostic and Statistical Manual of Mental Disorders*, in 1980, the relationship between social anxiety and shyness was being theorized about by researchers. Social anxiety is a well-defined clinical disorder in the DSM-IV, whereas shyness is less well-defined (Heiser, Turner, Beidel & Robertson-Nay, 2009). Social anxiety and shyness have similar features and include somatic symptoms (trembling, blushing, sweating), cognitive symptoms (fear of negative evaluation) and behavioural symptoms (avoidance of social situations). Regardless of these shared features, the relationship between social anxiety and shyness remains unclear. Shyness is viewed by many as a normal personality trait, and social anxiety as a clinical disorder. One hypothesis of the relationship between shyness and social anxiety is that the two conditions must be placed on a spectrum or a continuum with social anxiety conceptualized as 'extreme shyness' (Heiser, Turner, Beidel & Robertson-Nay, 2009).

People with social anxiety have more severe symptoms and are more impaired in social situations, because of the discomfort experienced by them. This supports the notion that shyness is a sub-clinical and a normal feature of personality that is not pathological (Heiser et al., 2009).

The second theory is that social anxiety and shyness are overlapping conditions, shyness being the broader construct than social anxiety. This hypothesis describes these two conditions as qualitatively different, rather than merely varying in the degree of severity.

Previous studies have demonstrated that higher levels of shyness are associated with higher rates of social anxiety, but that the conditions are not the same. The

studies also indicated that the relationship between social anxiety and shyness is limited to people with generalized social anxiety. Little or no association was found between shyness and specific phobia. The past research indicates that social anxiety and shyness are both related, however, most shy persons do not meet the criteria for social anxiety (Heiser, Turner & Beidel, 2003).

Heiser et al., (2009) compared highly shy individuals with and without generalized social anxiety disorder. The social anxiety sample reported a significantly greater amount of social fears, avoidance of social situations, somatic symptoms and negative thoughts. The shy group reported less functional impairment in their daily lives and a higher quality of life than the social anxiety group. The overall findings of the study are consistent with the hypothesis that shyness and social anxiety rest on a continuum (Heiser et al., 2009).

2.4.9 Co-morbid Psychiatric Conditions

Social anxiety shows a high co-morbidity with depression and alcohol dependence (Bruch & Fallon 2003; Merikangas et al., 2002). It is also associated with other anxiety disorders, substance use disorders and smoking and nicotine dependence (Voci et al., 2006).

Weiller, Bissierbe, Boyer, Lepine & and Lecrubier (1997) studied the co-morbidity of social anxiety among a primary health care population. Current major depression was seen in 33% of patients, generalised anxiety disorder in 27% of patients and agoraphobia in 19% of patients. In a community sample of subjects, selected for social anxiety disorder in 1992, co-morbid depression was found in 71%, drug abuse in 77% and obsessive compulsive disorder in 61% of subjects (Schneier et al., 1992). Alcohol abuse is also very common among social anxiety disorder subjects, as observed by Schneier et al. (1992) in 85% of patients (Lepine & Pelissomo, 2000).

2.4.10 Quality-of-life and Social Anxiety Disorder

Quality of Life (QoL) refers to aspects of life that make life particularly fulfilling and worthwhile. The scope of quality of life includes patients' subjective well-being and satisfaction, and functioning and impairment (Quilty, Van Ameringen, Mancini, Oakman & Farvolden, 2003).

Social Anxiety Disorder affects all aspects of life. It hinders work, social and personal relationships. People with social anxiety disorder are more likely to be unemployed, live alone and be unmarried or divorced. Isolation resulting from social anxiety disorder has a great impact on a person's quality of life (Lepine & Pelissolo, 2000).

In a study by Jenkinson et al., patients with social anxiety disorder (n=239) and normal controls (n=232) were asked to complete the Short Form 36 (SF36) of the Health Survey Questionnaire and marked differences in health and well-being factors were evident between the two groups. The quality of life of the subjects with social anxiety disorder was at a lower level (Lepine & Pelissolo, 2000).

Community samples have shown that individuals with social anxiety symptoms are more likely than individuals with no mental disorders to be financially dependent, to have a low income, education and social support and may exhibit suicidal ideation. People with social anxiety symptoms were found to have significant problems with education, occupation, social functioning, family and romantic relationships (Quilty, Van Ameringen, Mancini, Oakman & Farvolden, 2003).

Studies comparing social anxiety disorder patients with normal samples found that quality of life has a negative correlation with the severity of social phobia and functional impairment, also in sub-threshold forms. Other studies indicated that the experience of functional impairment in patients with social anxiety disorder, partially mediates the relationship between a patient's experience of symptoms

and his/her perceived life satisfaction, and that QoL is significantly negatively correlated with role limitations due to emotional problems and social functioning (Pallanti et al., 2008)

Wittchen, Fuetsch, Sonntag, Muller and Liebowitz (1999) investigated the relationship between social anxiety and quality of life among two groups: One consisting of people with social anxiety disorders and a control group. Participants with social anxiety symptoms (excluding any co-morbid condition) reported a significant reduction in their quality of life. Sub-threshold cases did not differ and reported the same degree of reduction in their quality of life as social anxiety sufferers. Individuals with social anxiety, and co-morbid conditions, were significantly more affected in their quality of life (Wittchen et al., 1999)

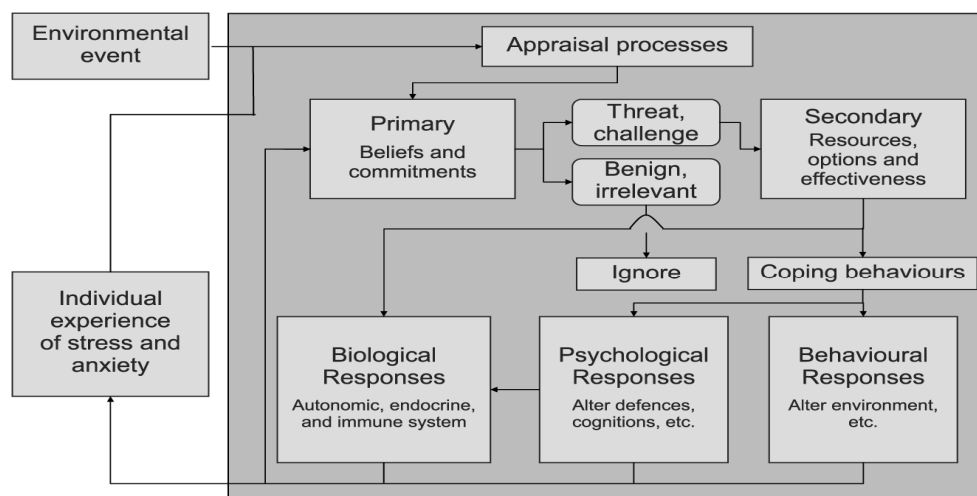
2.4.11 Economic Consequences of Social Anxiety Disorder

Social Anxiety disorder sufferers, are more likely to be unemployed, thus dependant on the state for financial support. Studies have also indicated that people with social anxiety disorder were more likely to be of a lower socio-economic status than controls (Lepine & Pelissolo, 2000). Wittchen et al. (1999) has shown that co-morbid conditions worsen the effect of social anxiety on work productivity. They also indicated that the likelihood of employees being absent from work on more than two days per month was higher in those suffering from the generalized than the non-generalized form of social anxiety disorder. Social anxiety disorder also leads to an increase in the use of medical services (Lepine & Pelissomo, 2000).

The largest part of the costs of sub-threshold social anxiety stem from production losses. People with the sub-threshold disorder have significantly higher uptake rates of mental health services than people with no social anxiety symptoms. Social anxiety is not only disabling for the affected patient, but also incurs major societal costs (Acarturk, 2009).

2.4.12 Manifestation of Social Anxiety in the Workplace

Anxiety is not a straightforward, uni-dimensional concept, but rather one involving complex behaviors. Prolonged anxiety may lead to chronic worrying and hypersensitivity, which may influence many areas of functioning, including memory, concentration, appetite, sexual functioning, sleep and perception. Lazarus and Folkman (1984) developed a well-established model of stress and anxiety (see Figure 1). This model explains how anxiety is influenced by the interaction between the appraisal of external (environmental) and internal processes. This comprises of learnt belief systems, which determine whether the potential stressors are perceived as either potential threats or as benign experiences. Additionally, coping strategies may be initiated by secondary personal resources that are perceived as successful because of past experiences in similar situations. It is also influenced by psychological (cognitive), behavioural and biological (autonomic nervous system arousal, immune system responses, endocrine reactivity) responses. An organization may therefore attempt to increase the resources and hence, the coping strategies of the employee in order to decrease the employee's feelings of anxiety.



Source: Lazarus and Folkman (1984) in Lovullo (1997, p. 77)

Figure 1

Model of anxiety

While the prevalence rates of anxiety disorders have increased over the past years (in large part owing to increased awareness and recognition), little is known about their impact on the working life of individuals (Haslam et al., 2005). Individuals experiencing anxiety disorders are likely to experience symptoms such as fatigue, and poor concentration that impair performance. Another problem these individuals face is the negative side effects of psychotropic medications used in the treatment for anxiety disorders. The side effects include attention impairment, memory loss and motor coordination problems (Haslam et al., 2005). Self-medication with alcohol, herbal products and caffeine is also common among socially anxious individuals (Haslam et al., 2005). All of these may contribute to work limitations. Work limitations refer to health-related decrements in the ability to perform required job roles among employed individuals (Lerner, 2009). Haslam et al. (2005) conducted a focus group study among individuals with social anxiety symptoms that were working at the time of the study. Respondents believed that unmanageable workloads added to their anxiety and depression, and they also felt that their managers offered little help. They also reported feeling stigmatized and rarely shared their symptoms with

their co-workers. According to these participants, the following factors were contributing to their anxiety and depression in the workplace: high workloads, insensitive management, poor communication, low awareness of mental health, poor industrial relations and stigma. The focus group study also reported that the respondents reported loss of social interaction, unemployment, sickness absence, accidents and impaired work performance. These effects on the individual level ultimately contributed to the following organizational effects: poor staff morale, increased staff turnover and reduced productivity. These authors concluded their study with workplace recommendations, such as an increased awareness of anxiety in the workplace, and proposed interventions to help employees with such symptoms which will ultimately reduce the negative effects for the individual and will also improve organizational morale and performance (Haslam et al., 2005).

Previous research indicated that the burden of social anxiety and the reduction of work productivity in sub-threshold social anxiety resemble those of the full blown disorder (Acarturk et al., 2009).

There is strong evidence in the literature that mental illness is associated with decreased productivity. People suffering from a psychiatric disorder may attend work, due to their physical health, but will be unable to function in a productive manner (Dewa & Lin, 2000). There may be various reasons why people suffering from anxiety disorders choose to attend work unwell, rather than being absent. According to Sanderson and Andrews (2006), these reasons may range from internal factors such as stoicism, and external factors such as an organizational culture that discourages sick leave. Another problem may be the lack of recognition that anxiety is the cause of ill health and the fear of stigma (Sanderson & Andrews, 2006).

The impact of social anxiety on a person's social functioning is well documented in the literature. However, the impact of the disorder on occupational behaviour

has received less attention (Rapee, 1996). There is some evidence that social anxiety leads to substantial reductions in work productivity and daily life activities (Wittchen, Fuetsch, Sonntag, Muller & Liebowitz, 1999). Social anxiety in the workplace includes the avoidance of contact whenever possible. This contact may be avoided with co-workers, clients or superiors. *Indiscriminate social anxiety* means that the anxiety occurs everywhere and with everyone. *Discriminate social anxiety* is limited to a selected person, group of people or situations (Linden & Muschalla, 2007). Socially anxious individuals may, therefore, try to avoid certain situations, leading to limitations in the workplace. They may be unable to work with their co-workers, decreasing the productivity of team work. Work limitations (*presenteeism*) are thus important among people with social anxiety disorder. The spectrum of social anxiety disturbances may not all be severe, but they may be severe enough to lead to work limitations. It is, therefore, important to uncover the extent of work limitations as this will help in determining the hidden costs of social anxiety.

Disabling anxiety does not always affect all parts of life, and may be limited to the workplace only. The workplace may contain situational characteristics that provoke anxiety. Such characteristics include demands, which may result in failures, rivalry between co-workers, and the hierarchical structure of the work environment with superiors exerting top-down demands. A study conducted by Linden and Muschalla (2007) found that workplace anxiety may be a circumscribed problem. Some participants in their study only reported social anxiety related to workplace (that is, their anxiety was stimulus bound to work situations). The authors suggested that diagnosis and treatments should not only be restricted to the primary disorder, but should also focus on specific work-related problems.

2.5 WORK LIMITATIONS AND MANAGERIAL PERFORMANCE

'Work disability' is a common term meaning interference in the individual's ability to perform in his/her work role. Work disability includes both lost productivity due

to the individual being unable to attend work, referred to as absenteeism, and lost productivity arising from attending work while unwell, referred to as presenteeism (Sanderson & Andrews, 2006).

A definition of presenteeism is provided by Ventresca (2008) that one must show up for work even if one is too sick, stressed, or distracted to be productive. Presenteeism reflects the phenomenon of attending work when sick, or “working through illness.” It has been estimated that presenteeism account for as much as 86% of the economic cost of lost productivity due to depression alone.

The economic burden of anxiety disorders leads to both direct and indirect costs. Direct costs refer to doctors’ visits, hospitalizations, medications, and caregivers’ time. These are easy to quantify, in contrast with the indirect costs related to absenteeism and presenteeism (Prasad et al., 2004). Absenteeism can be quantified by the number of days/hours of missed work, but what about those instances when mentally ill employees’ attend work, but work at a decreased productivity level due to their disabilities? Productivity reports only based on absenteeism therefore exclude critical pieces of information, regarding the other aspects of illness (Prasad et al. 2004). In addition to physical disorders, mental disorders in the workplace, including social anxiety, may be associated with such hidden costs and it is therefore important for employers to recognise this problem (Ceniceros, 2003; Sanderson et al., 2007).

Renee Moorefield, CEO of Wisdom Works Group, stated “A workplace suffering from presenteeism is one where energy, optimism, and enthusiasm have been drained from the workforce” (Topchick, 2005, p.60). According to him, employees show up for work, but their work is performed at a reduced capacity because they are depressed or burnt out.

The phenomenon of presenteeism is not new, but research in this field has become more extensive over the last decade. A comparison of the amount of

research devoted to absenteeism, compared to presenteeism indicates an astounding contrast - the number of articles on presenteeism is only 0.01% of the number on absenteeism (Hansen & Andersen, 2008). Managers are familiar with absenteeism, that is, the productivity loss of employees who stay at home. But the phenomenon of presenteeism is not as widely known (Ventresca, 2008).

According to Hansen and Andersen (2008), three factors highlight the necessity of studying this topic. Firstly, results from the so-called Whitehall II study revealed that people with poor self-rated health, who were never absent from work, were twice as likely to experience serious heart problems compared to those who took 1-7 days sick leave per year. Secondly, illness at work may severely decrease productivity, increasing costs for employers and society at large. Employers usually focus their attention on costs related to the absence from paid work, yet this is not the only cause of production losses related to anxiety disorders and associated mental health problems. People may be at work, while not in optimal health and therefore will not be fully productive (Brouwer et al., 1999). Thirdly, studying presenteeism may enhance our understanding of absenteeism, since both are outcomes of the same decision-making process, whereby one makes the decision not to work.

When one wants to define and measure job performance, it may be defined in terms of whether an employee's behaviour contributes to the organisation's goals. These behaviours may be stated in a job description. However, performance may include a variety of other behaviours, not included in one's job description and may therefore pose many challenges when measuring the construct. For the purposes of this study, the researcher is interested in the perceived performance difficulties experienced in organisations. The study will therefore rely on self-report measures of perceived performance difficulties. It is sensible to assume that the perceptions of job characteristics and the manner in which it is experienced will have an impact on the individual's psychological well-being, rather than the actual job characteristics. It is also reasonable to assume

that psychological well-being will impact the individual's performance, as well as his/her perceived performance difficulties.

2.5.1 Perceived Performance: Managerial Competencies

Individual determinants of performance have been researched by a large number of studies, mostly emphasizing personality and intelligence. According to Bartram and SHL Group (2005), the problem with these studies is that the range of elements of job performance is seldom distinguished. According to them, personality traits and intelligence may affect some facets of job performance, but not other.

Bartram and SHL Group (2005) argue that a generic taxonomy of competencies must be developed by researchers, mainly to distinguish the various activities that underpin job performance. After this taxonomy has been developed, it will enable researchers to explore the individual characteristics relating to the various competencies, partly to resolve inconsistencies in previous studies. Consistent with this proposal, researchers have proved that specific personality traits correlate with some, but not all of the facets of job performance (Bartram & SHL Group, 2005).

Several researchers have tried to define the key facets of performance, which lead to the development of competencies. Borman and Motowidlo (1993) divided job performance into two broad classes, namely contextual and task performance. Other taxonomies consist of more specific facets of job performance. For example, Campbell, McHenry and Wise (1990), identified five facets of job performance in a study among US army recruits. These five facets include: core proficiency, general soldier proficiency, effort and leadership, personal discipline, as well as military bearing and physical fitness. Campbell, McCloy, Oppler, and Sager (1993) later developed a more generic framework, consisting of eight facets of work performance, namely job-specific task proficiency, non-job-specific task proficiency, written and oral communication,

demonstrating effort, maintaining personal discipline, facilitating team and peer performance, supervision and leadership, as well as management and administration.

However, for the purposes of this research, the SHL eight competencies will be used to measure perceived job difficulties. These eight competencies emerged from a set of factor analyses that were derived from SHL measures of ability, personality and management competencies (Bartram & SHL Group, 2005).

These eight competencies are:

Leading and deciding, which consists of two competencies. The first, deciding and initiating action, refers to taking responsibility, making decisions and taking action. The second competency is leading and supervising, which includes delegating, motivating others, developing staff, as well as coaching.

Support and cooperation, which comprises two sets of competencies, namely working with people and adhering to principles and values. Working with people refers to understanding others, adapting to a team, communication and listening. Adhering to principles and values refers to acting with integrity, social and environmental responsibility and upholding ethics and values.

Interacting and presenting entails three sets of competencies, namely relating and networking (networking, building rapport), persuading and influencing (making an impact, promoting ideas, negotiating, gaining agreement) and presenting and communicating (speaking fluently, presenting public speaking, responding to an audience).

Analyzing and interpreting also includes three competencies, namely writing and reporting, applying expertise and technology and analyzing. Writing and reporting refers to writing correctly and clearly. Applying expertise and technology includes applying technical expertise, sharing expertise and

demonstrating spatial awareness. Analysing refers to analyzing and evaluating communication, producing solutions, testing assumptions, demonstrating systems thinking and making judgments.

Creating and conceptualising includes three sets of competencies as well, namely learning and researching (learning quickly, thinking quickly, gathering information, encouraging and supporting organizational learning), creating and innovating (innovating and seeking and introducing change) and formulating strategies and concepts (thinking broadly, setting and develop strategy).

Organising and executing consists of 3 competencies, planning and organising (setting objectives, managing resources and time and planning), delivering results and meeting customer expectations (focusing on customer needs and satisfaction and maintaining high quality processes) and following instructions and procedures (following procedures and directions, demonstrating commitment and complying with legal obligations).

Adapting and coping can be divided into two sets of competencies, adapting and coping and coping with pressures and setbacks. Adapting and coping refers to accepting new ideas, adapting and responding to change and adapting interpersonal style. Coping with pressures and setbacks refers to coping with pressure, self control, handling criticism and balancing work and personal life.

Enterprising and performing entails two competencies. The first, achieving personal work goals and objectives refers to achieving objectives, demonstrating ambition and working energetically. The second set, entrepreneurial and commercial thinking, refers to identifying business opportunities, keeping aware of organizational issues and monitoring markets and competitors.

2.6 MANAGEMENT OF SOCIAL ANXIETY SYMPTOMS

In community samples, socially anxious individuals were found to have low social support, compared to healthy individuals (Quilty et al., 2003). In a focus-group study by Haslam et al. (2005) respondents reported the following relating to the workplace:

- Stigmatisation by co-workers and managers because they did not understand conditions like anxiety.
- Unmanageable workloads that contributed to the development of their mental health problems.
- Loss of support networks due to absenteeism as a result of the condition.
- Physical and psychological symptoms of anxiety and depression that impaired work performance and increased the risk of accidents.

A study by Randall, Cropanzano and Bormann (1999) found a significant correlation between employees' perceived organizational support and supervisory ratings of performance ($r = .22$, $n = 128$). The relationship between workload and performance is however ambiguous, with some studies indicating a positive relationship with performance, and others indicating a negative relationship. The relationship between workload and performance may therefore be influenced by other variables.

Andrea et al. (2009), recently conducted a study and found that psychosocial work characteristics were predictive of the development of anxiety and depression. High psychosocial job demands increased the risk for both anxiety and depression. Low social support was also predictive of the onset of anxiety, and job insecurity increased the risk for depression.

2.6.1 Job Characteristics

When employees are faced with high job demands, within an external environment that is lacking in resources, they cannot reduce the negative effects thereof. Work goals may then not be achieved and they may not be able to develop themselves further in their job and organization (Rothman & Jordaan,

2006). The Conservation of Resources (COR) theory, predicts that in such a situation, employees will attempt to minimize losses, in order to reduce the discomfort of job stress. They will strive to achieve equity without any further personal negative consequences and they will probably reduce their discretionary inputs (Rothmann, Mostert & Strydom, 2006). Research has further demonstrated that job demands have a negative relationship with organizational performance (Xanthopoulou et al., 2007).

According to Rothmann et al. (2006) job demands and job resources influence an employee's well-being. Two models could be used to explain this influence process. The *holistic model of well-being* demonstrates that demands may lead to distress (such as burnout) or eustress, depending on the coping ability of the individual. The *dual-process model*, suggests that job demands and job resources may affect an employee's physical health and psychological well-being, as well as organizational factors, through certain moderator variables such as burnout or work engagement. Job demands and resources can therefore be regarded as important contributors to well-being within an organization (Rothmann et al., 2006).

The *Job Demands-Resources (JDR) model* was developed by Demerouti et al. (2001). One central postulation of this model is that although every occupation or organization has different job-characteristics, it is possible to place these within two broad categories, namely job demands and job resources. The Job Demand-Resources (JDR) model suggest that two underlying psychological processes influences burnout. This entails an effort-driven process in which excessive job demands leads to exhaustion, and a motivation-driven process in which disengagement is a result of lacking resources (Jackson, Rothmann & Van de Vijver, 2006).

Job demands are those aspects of a job that can potentially cause strain when they exceed the adaptive capability of the employee. Job demands refer to

physical, social or organizational aspects of a job that require continual psychological and/or physical effort from employees. It is, therefore, associated with certain psychological or physical costs. Job demands become negative when they require effort and cause stress while confronting employees when they have not yet recovered from the stress caused by previous demands. The JD-R model recognizes that demanding characteristics of the work environment, emotional demands, work pressure, job overload and poor environmental conditions may lead to health impairments (Rothmann et al., 2006).

Job resources refer to the assets or opportunities offered by a job. It is the physical, psychological, social or organizational characteristics of a job that either/or (1) reduce job demands and the associated physiological and psychological costs; (2) are functional in achieving work goals; (3) stimulate personal growth, learning and development. Resources are, therefore, not only essential to deal with job demands, but they have important positive characteristics in their own right (Rothmann et al., 2006).

Resources can be available on four levels:

- At the organizational level, such as salary, career opportunities, and job security.
- It may be at the level of interpersonal and social relations, such as supervisor and co-worker support.
- At the level of the organization of work - examples of this are role clarity and participation in decision-making; and
- at the level of the task - skill variety, performance feedback, task significance, and task identity are examples of such resources.

Job resources may play an intrinsically motivating role such as developing employee growth, learning and development. Alternatively, it may play an extrinsically motivating role, by being instrumental in achieving work goals (Rothmann et al., 2006).

The JD-R model is an overarching model that can be applied to different organizations and occupational settings, irrespective of the particular job demands and resources involved (Bakker & Demerouti, 2006). It may be argued that the more job demands one has, the more the risk is increased for social anxiety spectrum problems, owing to the resulting stress. It may also be that the more resources one has, the less the risk is that one will develop social anxiety spectrum problems.

2.6.2 Management of Social Anxiety in the Workplace

It should be noted that manageable levels of anxiety symptoms are normal responses to perceived stressful situations. It would be expected that a manager that has to give a presentation to his subordinates will experience some anxiety symptoms. However, it is when this anxiety level becomes disproportionate or prolonged, causing extreme distress and discomfort, that it may lead to severe consequences for individuals.

When effective treatment strategies for social anxiety symptoms are available within organisations, the recognition of social anxiety symptoms becomes much more meaningful. Interventions may be designed which may lead to a tangible benefit. According to Baruch and Lambert (2006), two main strategies exist for addressing social anxiety symptoms which are:

- Preventative strategies to identify symptoms at an early stage and preventing problems.
- Treatment strategies for when either prevention was not in place, or has not been successful.

2.6.2.1 *Prevention strategies in organisations*

Strategies for the prevention of anxiety include recognition, which may promote treatment. The early recognition of social anxiety symptoms is more effective than when it occurs at a later stage, because fewer maladaptive responses may have developed (Baruch & Lambert, 2006). Several risk factors have been identified for the development of social anxiety symptoms. These risk factors may include parental anxiety, personality, and modeling of anxious behaviour. Interventions may therefore be developed to target these risk groups. Examples of prevention strategies include mental wellness programmes, education, and assertiveness and social skills training (Baruch & Lambert, 2006).

Many approaches to the treatment of social anxiety symptoms focus on the enabling identification of the causes of the anxiety symptoms, and on examining potential strategies through which to regain control over the responses to it. Control may be required over physiological reactions (lifestyle change education or relaxation techniques), thought processes (psychotherapy, counseling and cognitive behavioural techniques may help), or over the situations themselves (problem solving approach may be useful) (Baruch & Lambert, 2006).

Managing work-related stressors includes assessing the stressors in the workplace in terms of the nature and type of the work, work load and the organization thereof. External signs of stress can be monitored and the monitoring of self and of one's colleagues can be encouraged. Stress management workshops may also be offered to the employees. These workshops, however, are only effective when the sources of stress are actively managed and if the training is designed according to the individual needs of the participants. These stress management workshops may include generic coping skills such as relaxation techniques (Howard, 2008).

Social support at work is also a buffer against stress. In a study by Bakker, Demerouti and Euwema (2005) they found that work overload, physical

demands, emotional demands and emotional demands did not result in burnout, if the employees experienced the following buffers: autonomy, social support and feedback.

2.6.2.2 Outsourcing Treatment strategies

Once social anxiety symptoms are detected, treatment strategies may follow. These treatment techniques may be outsourced or may be provided in-house. When the treatment is outsourced, employees with social anxiety symptoms may be recognized and referred to specialists. Alternatively, the organization may treat the employees through the use of employee assistance programs.

Three treatment options usually exist for people suffering from social anxiety symptoms, namely counseling, cognitive behavioural techniques and psychotherapy. Counseling is a technique used to assist the individual to gain a more objective view of the situation. It also gives the individual insight as to the need to examine the available realistic options for actively addressing the situation and to minimize the negative effects thereof (Baruch & Lambert, 2006).

Cognitive behavioural techniques teach the individual to identify his/her negative thought processes. Once those thought processes are identified, the associated behavioural responses may be considered. Positive changes to both the thoughts and the behaviours may be suggested together with various other positive strategies (Baruch & Lambert, 2006).

Psychotherapy is the process of helping an individual to understand and to overcome their problems by encouraging the individual to talk through their life experiences in regular sessions with a trained psychotherapist. This enables the individual to identify and acknowledge the impact of various life events from the past on their current behaviour (Baruch & Lambert, 2006).

Regardless of the extent of the suffering and impairment associated with social anxiety, only about a half of socially anxious individuals seek treatment, usually

after 15-20 years of symptoms (Stein & Stein, 2008). This may be due to people thinking they are merely shy and that it is merely the personality type that they are born with. It is, therefore, of great importance to recognize people who are socially anxious, and for organizations to provide assertiveness training and assistance to their employees who are socially anxious. Moreover, very effective treatment strategies are available for social anxiety disorder that may enhance the performance of the organization's employees. Many controlled trials show the efficacy of medication and cognitive behavioural therapy in social anxiety disorder with relatively high effect sizes. Research has also suggested that medication may have a faster effect on social anxiety treatment, but that the effects of cognitive behavioural therapy might last longer. Either pharmacotherapy or cognitive behavioural therapy is acceptable first line interventions for social anxiety disorder. Currently, no evidence indicates that the combined effect of both is more effective than single modality treatment. The choice to use one modality above the other often relies on clinical judgment about individual patients (Stein & Stein, 2008).

Many studies have proven the effectiveness of cognitive behavioural therapy for the treatment of social anxiety. Components of this treatment can include psychoeducation, progressive muscle relaxation, social skills training, imaginal and in-vivo exposure, video feedback, and cognitive restructuring. Cognitive behavioural therapy focuses on the relationship between dysfunctional belief systems and behavioral avoidance (Stein & Stein, 2008).

There is strong evidence that antidepressants have proven efficacy in the short term, as well as in the long term treatment of social anxiety disorder (Antai-Otong, 2008).

Yet, mental health services are hugely under-resourced and there are many barriers to health care for those suffering from mental illnesses. Such barriers include lack of responsibility, acceptability and availability of services, stigma,

lack of awareness, cultural beliefs, perceptions that treatments may not be effective and language problems. The failure and delays in treatment-seeking for mental disorders are larger and more all-encompassing in developing countries, contributing to high levels of unmet need within the community (Seedat, Williams, Herman, Moomal, Williams, Jackson, Myer & Stein, 2009).

2.6.2.3 Positive psychology and organizational management strategies

Positive psychologists have explored not only the prevention of stress and ill-health within an organization, but the promotion of psychological well-being. These positive psychological studies include concepts such as resilience, job control, sense of coherence, personal hardiness, flow and work engagement. These concepts are all found to have positive impacts upon employees' well-being.

Antonovsky (1987) proposed the term "Sense of Coherence" (SOC) and stated that it consists out of three components, namely manageability, meaningfulness and comprehensiveness. It is, according to Antonovsky, vital to the prevention of ill health and the preservation of good health. *Comprehensiveness* refers to how people perceive external events and how they interpret these events. *Manageability* is the expectation that the person have adequate resources available to cope with the present demands. *Meaningfulness* is related to the individual's motivation and emotions about work, and refers to the value an individual gives to his/her work. When a lack of *meaningfulness* is present, disengagement or alienation will be the result. When one has a good Sense of Coherence, it has been found to be positively related to well-being and negatively related to stress and burnout (Howard, 2008).

Work engagement refers to the degree to which an individual feels positive, fulfilled and involved at work. When an individual displays a high level of work engagement, it will be associated with high levels of energy, absorption in work and dedication to their work, otherwise referred to as vigour. Work engagement

is also a buffer against stress and it has been found to be a state that can be transmitted between workers (Howard, 2008).

Self-efficacy refers to a person's judgment of their capability to perform certain tasks and roles and it is also linked to well-being at work. Past successes and positive feelings are both positive sources of self-efficacy that will promote well-being and increase performance (Howard, 2008).

Flow is another construct that promotes well-being. Flow refers to a "...short term peak experience that is characterized by absorption, work enjoyment and intrinsic work motivation" (Bakker, 2004, p. 52). It would therefore be important to select work tasks at the optimal levels of challenge for each employee so that he/she can reach a state of flow (Howard, 2008).

Resilience refers to one's ability to endure exceptional stresses and demands, without developing stress associated problems. It is expressed by job satisfaction, job performance, good mental health, happiness and functional capacity. Interventions designed to increase resilience could encompass the development of employees' skills and resources (Howard, 2008).

There are various strategies to contribute to these above-mentioned psychological states. In order to promote manageability, an employee's workload may be reviewed and the tasks of the employee may be altered. The experience of flow may be achieved by appropriately matching goals and skills while maintaining some challenge. Resolving conflict may also, for example, contribute to perceived social support (Howard, 2008).

It is therefore important for organizations, not only to minimize stressors and treat ill-health symptoms, but it is as important to promote positive well-being and to put certain strategies in place that will increase employees' well-being.

2.7 RESEARCH GOAL AND OBJECTIVES

To date, the prevalence and characteristics of social anxiety spectrum symptoms and social anxiety disorder and their impact on presenteeism in the workplace (problems with productivity when attending work while sick), have not been carefully examined. Managers are expected to perform certain roles, while some of the roles may be difficult for a manager with social anxiety symptoms. The social anxiety symptoms may therefore cause work limitations and perceived performance difficulties. Further, managers are faced with many job demands that may further limit them and therefore moderate the relationship between social anxiety symptoms and perceived performance difficulties and work limitations. Job resources on the other hand may act as a buffer against the negative effects of social anxiety symptoms and may decrease work limitations and perceived performance difficulties.

The overarching research objective of the study may therefore be defined as: To investigate the nature of the relationship between social anxiety (and its spectrum) and work limitations and perceived performance difficulties, and how it is moderated by job demands and job resources.

This study will aim to:

- (1) determine the prevalence and frequency of social anxiety symptoms within the sample of managerial level employees;
- (2) determine the impact of these social anxiety symptoms on work limitations and how it affects perceived performance difficulties.
- (3) determine whether job characteristics have a moderating effect on these relationships.

Once a moderating effect is established, it will allow practitioners to develop interventions that will allow them to alter the current work characteristics (job demands and job resources) and thereby reduce the work limitations and the

perceived performance difficulties of employees suffering from social anxiety symptoms.

2.8 SUMMARY

It is evident that social anxiety and its spectrum of symptoms can significantly decrease the functional ability of sufferers. However, most studies concentrate on clinically socially anxious patients who are treatment-seeking. Little is known about the working community and how social anxiety may affect their lives.

Many people suffering from social anxiety do not seek treatment and live with the symptoms for years. It is therefore necessary to increase awareness and recognition within organizations, so as to provide timely treatment and in so doing enhance the work performance ability of sufferers.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

The research design refers to the planning of the research. It guides the researcher in his/her collection and analysis of data (Christensen, 1985). A non-experimental research design (exploratory survey study) was used to explore the relationships between social anxiety symptoms and work limitations and perceived work performance difficulties. A non-experimental research design is used when the researcher wants to observe relationships between certain variables without manipulating the variable in any way. A relational approach was followed whereby correlation and multivariate statistical techniques were used to determine the strength and direction of the relationships between the variables (Kerlinger, 1973).

The study also follows a diagnostic approach. In diagnostic research studies, the frequency is determined with which something occurs or the association thereof with something else (Kothari, 2004).

3.2 SAMPLE SELECTION AND PROCEDURE

3.2.1 Sampling

Research participants were drawn from a non-probability sample, more specifically, availability sampling. Convenience sampling refers to the selection of those cases that are easy to obtain. This technique is, according to Gravetter and Forzano (2003), the most commonly used sampling method in psychological research.

All volunteering managerial level employees of various departments from two large organisations were recruited as the sample. Participants were from both public and private sector organizations. All of the participants were permanent employees. The organizations classify employees into managerial level based

on the task level of the employees. Managerial employees are those employees with a task level of eight to twenty six. The sample consisted of middle level managers, between task levels of eight to seventeen. The task level for managerial level employees is defined as: professionally qualified, experienced specialists with an interpretive decision level.

Two hundred and fifty questionnaires were handed out in total, and 134 questionnaires were returned to the researcher (53% response rate). Out of the 134, 118 were completed questionnaires.

3.2.2 Data Collection and Procedure

Permission was granted to recruit participants from the public sector organization by the human resource manager of the organization. The first data collection procedure proposed was by means of creating a link on the organisation's internal website whereby employees can retrieve and complete the questionnaire. Due to concerns about response rate as well as confidentiality, it was decided that hard copies of the questionnaires would rather be handed out to participants. An e-mail was sent out to various departments, in which the study and procedure was described. Participation was motivated by means of a lucky draw. Participants who completed their questionnaires were able to win a prize which was a dinner voucher for two. Interested employees could collect a questionnaire from the HR manager. Fifty questionnaires were handed out and the researcher only received 22 completed copies. The response rate was low (44%), because the organization did not allow the researcher to recruit participants directly, and it was merely employees who were willing to help who volunteered to participate in the study.

Permission was also granted by the human resource manager to recruit participants in the private sector organization. Line managers from various departments (Information Technology, Personnel, Finance and Marketing) were contacted and they identified possible teams that consisted of managerial level

employees that could be recruited to participate in the study. Participation in the private sector organization was also voluntary, and was also motivated by means of a lucky draw. Participants who completed their questionnaires were able to win a prize which was a dinner voucher for two.

Two hundred employees were targeted and received a motivating e-mail from the researcher in advance of the survey distribution in which they were informed about the study and were asked to participate by completing the survey. The prospective participants were also provided with information regarding the purpose of the survey, their rights as participants, confidentiality and how to complete the survey. A hard copy of the survey questionnaire was delivered to all 200 identified managerial level employees. Confidentiality was maintained by allowing participants to complete the questionnaire anonymously. The questionnaire was composed of sub-sections. It consisted of a biographical section and the four scales, namely the Social Anxiety Scale, Work Limitations Questionnaire, Job Characteristics scale and the Perceived Performance Difficulties Scale.

An envelope was also provided to each participant in which the completed questionnaire was placed to ensure confidentiality. After completion they had to hand it in at their departmental reception desk. Their names were then marked off by the receptionist (in order for them to compete in the lucky draw) and the questionnaire was placed in a sealed box. Each questionnaire was accompanied by two numbers. Each participant took one of the numbers and left the other number on the questionnaire. The number was not linked to the participant's identity, but was used for the lucky draw. A completed questionnaire's number was drawn for the lucky draw. All the respondents were contacted by an e-mail stating the winner of the lucky draw. The winner indicated his number and won the prize. Ninety four completed questionnaires were returned to the researcher.

3.3 MEASURING INSTRUMENTS

3.3.1 Social Anxiety Spectrum (SHY-SR)

The diagnostic threshold of social anxiety disorder is still controversial and Dell’Osso et al. (2003), argues that social anxiety may be best described as a continuum of severity, rather than a distinct disorder on the basis of a subjectively derived threshold. The Social Anxiety Spectrum Self-report (SHY-SR) is a self-report questionnaire for the assessment of the social anxiety spectrum. This self-report measure reflects a conceptualization of the social anxiety spectrum that spans shyness to severe social anxiety disorder. It includes full-blown and typical, as well as sub-clinical and atypical presentations, isolated signs and symptoms, as well as avoidant personality traits (Dell’Osso et al., 2003). Little empirical research has been done on the boundaries and thresholds for the diagnostic criteria for social anxiety in the community. Merikangas et al. (2002) concluded that it is better to conceptualize social anxiety as a continuum of severity rather than a discrete disorder based on a subjectively derived threshold.

The SHY-SR consists of 164 items. These items are grouped within the following domains: “interpersonal sensitivity”, “behavioural inhibition and somatic symptoms”, and “specific anxieties and phobic features”. An appendix is also included on substance abuse. The SHY-SR consists of dichotomous (yes/no) items. According to Dell’Osso et al. (2003), three cut-off scores were determined for the SHY-SR, namely low scorers (total score <59), medium scorers (total score 59 – 67) and high scorers (>67).

The SHY-SR was derived from the Structured Clinical Interview for Social Phobia Spectrum (SCI-SHY). The interview demonstrated moderate to substantial internal consistency, good inter-rater reliability and excellent discriminant validity (Berrocal et al. 2006). Berrocal et al. (2006), recently reported on the equivalence of the interview and the self-report version in a sample of psychiatric patients and normal controls. Dell’Osso et al. (2003) has found that the

agreement between the interview and the self-report measure was substantive (intra-class correlations >0.74) in a sample of 50 psychiatric and non-psychiatric patients. The intra-class correlations measure the agreement between dimensions of the two measurement instruments, namely the SHY-interview and the SHY-self report.

A study was conducted by Dell'Osso et al. (2002) to determine the equivalence between the interview and the self-report measure of the social anxiety spectrum. They found a high level of equivalence between the two instruments. They further found that the self-report measure may be more sensitive to attempts by respondents to minimize problems that they may be experiencing.

3.3.2 Job Characteristics Scale (JCS)

Jackson and Rothman (2005) developed the Job Characteristics Scale to measure job demands and job resources. The questionnaire was based on interviews with participants in their study, as well as a literature study on job demands and job resources in organizations.

The Job Characteristics Scale (JCS) consists of 48 items. The questionnaire measures job demands and job resources of employees. The questions are rated on a 4 point Likert scale ranging from (1) always to (4) never.

A study by Rothman and Joubert (2007) conducted a principle component analysis on the items of the JCS and five factors were extracted, which explained 49.81% of the total variance. The five factors extracted were overload, job insecurity, growth opportunities, advancement and organizational support. Overload refers to mental load, emotional load and the amount of work. Job insecurity refers to feelings of insecurity in the current job. Growth opportunities refer to having enough independence, opportunities to learn and enough variety in your work. Advancement refers to moving forward in your work and includes career opportunities, remuneration and training. Organizational support refers to

the availability of information, relationships with supervisors/managers, social support by co-workers and participation. A second order factor analysis was also conducted and two factors were extracted, namely job demands and job resources with Eigen values of 2.08 and 1.03 respectively, which explained 62.20% of the total variance.

The scale indicated acceptable internal consistency reliability, with alpha coefficients ranging from .76 to .92. According to Rothmann et al. (2006), the JCS is valid, reliable and equivalent for different organizations (Rothman & Joubert, 2007).

3.3.3 Work Limitations Questionnaire (WLQ)

The current measures of work performance rely on self-report data. In the ideal world, one would access archival data about performance ratings, but this is often absent, difficult to acquire or too costly to obtain on a widespread scale (Evans, 2004). It is necessary to measure work limitations of employees, because productivity reports based solely on absenteeism, exclude critical information regarding other aspects of the impact of disability on performance. In order to fill this gap, several self-report instruments have been developed to measure health-related productivity loss (Prasad, Wahlqvist, Shikar, & Shih, 2004). There are six such instruments that may be used in any working population, namely the Endicott Work Productivity Scale, Health and Labor Questionnaire, Health and Work Questionnaire, Health and Work Performance Questionnaire, Work Limitations Questionnaire (WLQ), and the Work Productivity and Activity Impairment Questionnaire (WPAI) (Prasad et al., 2004). A study by Sanderson, Tilse, Nicholson, Oldenburg, and Graves (2007) demonstrated that the WLQ offer significant advantages over briefer measures. They also found that *presenteeism* is a stronger correlate of depression/anxiety than absenteeism.

The WLQ was developed through pilot studies in groups of people suffering from asthma, Crohn's disease, liver disease, depression and generalized anxiety. It was then tested on clinical patients. Internal consistency reliabilities ranging (Cronbach alpha's) from .89 to .91 were obtained for each domain. The four domains reflecting the impact of diseases on different work tasks include: time, physical, mental-interpersonal and output demands (Prasad et al., 2004).

According to Prasad et al. (2004), the psychometric properties of the WPAI and WLQ have been tested most extensively and in a variety of populations. The output demands scale of the WLQ predicted productivity loss most accurately (Cronbach's alpha >.9). The WLQ has been tested among employees with nine different chronic conditions, including physical and mental health disorders. The WLQ measures domain-specific work limitations and does not consider overall reduction. The WLQ is generalisable across occupations and disease areas (Prasad et al., 2004). According to Prasad et al., the WLQ has been found to be a valid self-report instrument, and it provides an accurate portrayal of the role of health on a worker's productivity.

The WLQ was tested on a cross-sectional study of 230 osteoarthritic employees and 37 healthy controls. Item-to-total scale correlation coefficients were greater than .40 and internal consistency reliability was also found to be high (α ranging from .93 – .96).

Other researchers also confirm that the WLQ could be regarded as a reliable and valid self-report instrument for the measurement of the degree to which chronic health problems interfere with one's ability to perform certain job roles (Lerner, Amick, Rogers, Malspeis, Bungay & Cynn, 2001).

3.3.4 Perceived Performance Difficulties Scale (PPDS)

A self-developed rating scale was also used for the purposes of this study. The Big 8 competencies that are regarded by SHL as necessary for managerial

effectiveness, can further be sub-divided into 20 sub-competencies. These sub-competencies were taken and a 20 question rating scale was developed. The participant is asked to rate each competency according to the difficulty that he/she has experienced during the last month when he/she had to perform each of those twenty tasks. The scale ranges from no difficulty (1) to extreme difficulty (7). These eight competencies represent a set of factors that underpin job performance. The eight competencies are:

Leading and deciding consists of two competencies. The first, deciding and initiating action refers to taking responsibility, making decisions and taking action. The second competency is leading and supervising which includes delegating, motivating others, developing staff as well as coaching.

Support and cooperation comprises two sets of competencies, namely working with people and adhering to principles and values. Working with people refers to understanding others, adapting to a team, communication and listening. Adhering to principles and values refers to acting with integrity, social and environmental responsibility and upholding ethics and values.

Interacting and presenting entails three sets of competencies, namely relating and networking (networking, building rapport), persuading and influencing (making an impact, promoting ideas, negotiating, gaining agreement) and presenting and communicating (speaking fluently, presenting public speaking, responding to an audience).

Analyzing and interpreting also includes three competencies, namely writing and reporting, applying expertise and technology and analyzing. Writing and reporting refers to writing correctly and clearly. Applying expertise and technology includes applying technical expertise, sharing expertise and demonstrating spatial awareness. Analyzing refers to analyzing and evaluating

communication, producing solutions, testing assumptions, demonstrating systems thinking and making judgments.

Creating and conceptualizing includes three sets of competencies as well, namely learning and researching (learning quickly, thinking quickly, gathering information, encouraging and supporting organizational learning), creating and innovating (innovating and seeking and introducing change) and formulating strategies and concepts (thinking broadly, setting and developing strategy).

Organizing and executing consists of 3 competencies, planning and organizing (setting objectives, managing resources and time and planning), delivering results and meeting customer expectations (focusing on customer needs and satisfaction and maintaining high quality processes) and following instructions and procedures (following procedures and directions, demonstrating commitment and complying with legal obligations).

Adapting and coping can be divided into two sets of competencies, adapting and coping and coping with pressures and setbacks. Adapting and coping refers to accepting new ideas, adapting and responding to change and adapting interpersonal style. Coping with pressures and setbacks refers to coping with pressure, self control, handling criticism and balancing work and personal life.

Enterprising and performing also entails two competencies. The first, achieving personal work goals and objectives refers to achieving objectives, demonstrating ambition and working energetically. The second set, entrepreneurial and commercial thinking refers to identifying business opportunities, keeping aware of organizational issues and monitoring markets and competitors.

Bartram and SHL Group (2005) studied these competencies and examined how they correlate with performance and ability. They found that the competencies were minimally correlated with each other. They also found that the

competencies are moderately related to personality. Leading and deciding was found to be associated with extraversion. Analyzing and interpreting and creating and conceptualizing are both related to openness to experience. Enterprising and performing is inversely related to agreeableness. However, these correlations were found to be moderate, rarely exceeding .25. They also found that intelligence or ability is associated with analyzing and interpreting. Moderate correlations were observed between intelligence or ability and interacting and presenting, creating and conceptualizing and also organizing and executing.

3.4 STATISTICAL ANALYSIS

The Statistical Package for the Social Sciences (SPSS) as well as STATISTICA were used to perform a range of statistical analyses on the questionnaire data. The psychometric properties of the measurement instruments were investigated. Item analysis was used to assess the internal consistency reliability of the measuring instruments.

Descriptive statistics such as means and standard deviations were computed for each measurement instrument. Spearman rank order correlations were calculated to evaluate the relationships between social anxiety, job characteristics, work limitations and perceived work difficulties. An all subsets regression analysis was conducted, in which r^2 together with the number of variables, in the equation, were used to determine the optimal model. The analysis was conducted to explore firstly, how much variance in the dependent variable is explained as a whole by all the independent variables and secondly, to determine which specific independent variables explain the most unique variance in the dependent variable.

A series of one-way between group analyses (ANOVA) were conducted to explore the difference between gender, educational level and marital status in terms of reported mean scores on the dimensions of the SHY-SR dimensions. In

some cases, a non-normal distribution was found where data deviated from the norm. Non-parametric tests were therefore used. The Mann-Whitney U-test was used when two groups were compared and the Kruskal-Wallis test was used when more than two groups were compared.

Moderated regression analyses were applied to test the proposition regarding the moderating effect of job demands and job resources. A moderating effect refers to a situation where the relationship between two variables changes as a function of a third variable's value. A mediator effect refers to a situation where a third variable accounts for the relationship between a predictor and criterion (De Cuyper & De Witte, 2005).

3.5 RESEARCH PROPOSITIONS

The overarching research objective of the study is to investigate the nature of the relationships between social anxiety (and its spectrum) and work limitations and perceived performance difficulties, and how it is moderated by job demands and job resources. The following research propositions will be investigated:

Proposition One: Social Anxiety will affect perceived performance difficulties in a positive direction and give rise to work limitations.

Proposition Two: There is a positive relationship between job demands and the social anxiety spectrum.

Proposition Three: Exposure to high job demands will influence work limitations in a positive direction.

Proposition Four: Exposure to high job demands will influence perceived performance difficulties in a positive direction.

Proposition Five: There is a negative relationship between job resources and the social anxiety spectrum.

Proposition Six: There is a negative relationship between job resources and work limitations.

Proposition Seven: There is a negative relationship between job resources and perceived performance difficulties.

Proposition Eight: Job demands have a moderating effect on the relationship between social anxiety and work limitations.

Proposition Nine: Job demands have a moderating effect on the relationship between social anxiety and perceived performance difficulties.

Proposition Ten: Job resources have a moderating effect on the relationship between social anxiety and work limitations.

Proposition Eleven: Job resources have a moderating effect on the relationship between social anxiety and perceived performance difficulties.

3.6 SUMMARY

In order to provide effective interventions, the nature, characteristics and other disabilities associated with the social anxiety spectrum need to be understood more clearly, as well as the impact of job characteristics on the syndrome. The study expects to confirm the propositions made in section 4 through data gathering and quantitative analysis. If these propositions are confirmed, the findings will better describe social anxiety within the working population and will shed light on the influence of work characteristics on social anxiety and the resultant work limitations. This may enable organizations to develop interventions to promote health and combat social anxiety within the workplace.

Job demands and job resources could potentially be modified so as to reduce the risk of social anxiety and ultimately improve organisational performance in the medium- to long- term.

It must be noted that only self-report measures will be utilized in this study. This may be seen as a limitation, because it is anticipated that people with social anxiety symptoms may tend to rate their performance in a biased manner (either lower or higher as the actual performance). The Workplace Limitations Questionnaire, however, does not measure the employee's perception of his or her performance, but it measures the perceived difficulty one experiences in executing certain tasks.

The self-developed questionnaire, measuring the 8 managerial competencies, also measures the degree of difficulty that the individuals experience when performing these tasks. This study therefore does not measure actual performance, but seeks to uncover the experience of managerial tasks and everyday duties and how this may differ among individuals on different points of the social anxiety spectrum.

CHAPTER 4

RESEARCH RESULTS

4.1 INTRODUCTION

This chapter will focus on the results of the research. The sample demographics will be provided first, followed by the psychometric properties of the measurement instruments. The impact of socio-demographic variables on social anxiety by means of ANOVA analyses will also be provided. The results of the intercorrelations between selected variables will be provided next and the results of the multiple regression analyses will be presented thereafter. Lastly, the results of the moderating effect of the JCS will be presented.

4.2 SAMPLE DEMOGRAPHICS

Questionnaires were handed out to managerial level employees of two large South African organisations. One of the organisations is a public sector organisation and the other a private sector organisation. The questionnaires were handed out to employees who volunteered to participate in the study. Two hundred fifty questionnaires were handed out and 120 questionnaires were returned (a response rate of 48%). Due to missing data and incomplete questionnaires, 118 questionnaires were included in this study.

The descriptive statistics reflected a mean age of 32 years, with the boundaries at 20 years (minimum age) and 56 years (maximum age). The gender distribution was 50% females and 50% males. The race distribution reported in Table 4.1 was 64% White, 29% Coloured, 4% Black and 3% Indian.

Table 4.1

Race distribution

	Frequency	Percentage
White	76	64%
Coloured	34	29%
Black	5	4%
Indian	3	3%

The years of work distribution is reflected in Table 4.2. The majority of the participants have been working for less than five years (37.29%). The mean of the years of work was reported as 10.81 and the median was 9.5, with the boundaries at .5 years (minimum years of work) and 40 (maximum of years worked).

Table 4.2

Years of work

	Frequency	Percentage
0 – 5 years	44	37.29%
5 – 10 years	21	17.80%
10 – 15 years	25	21.86%
15 – 20 years	12	10.17%
20 – 25 years	7	5.93%
25 – 30 years	5	4.24%
30 – 35 years	2	1.69%
35 – 40 years	2	1.69%

Table 4.3 indicates the level of education and marital status of the sample.

Table 4.3

Descriptive statistics

Item	Category	n	Percentage
Level of education	Grade 12	37	31%
	Diploma/Degree	49	42%
	Post Graduate degree	32	27%
Marital status	Single	61	52%
	Married	50	42%
	Divorced	7	6%

According to Table 4.3 the largest proportion of the sample had achieved a diploma or degree (42%) and was single (52%).

4.3 DESCRIPTIVE STATISTICS OF THE PSYCHOMETRIC INSTRUMENTS

The descriptive statistics were calculated using Statistica for all of the four constructs measured: social anxiety spectrum, job characteristics, work limitations and perceived performance difficulties.

4.3.1 The Social Anxiety Scale (SHY-SR)

The results reported for the SHY-SR were calculated by using the individual raw scores per item for each of the dimensions of the constructs measured. The mean total score of the SHY-SR for the participants in this study is 31.86. Table 4.4 sets out the descriptive statistics for the SHY-SR. Three categories are generally used to classify the severity of the social anxiety symptoms. These categories can be calculated on the basis of the total score, with low scorers (<59), medium scorers (59 – 67) and high scorers (>=68). Table 4.5 sets out the clinical category distribution of participants.

Table 4.4

Descriptive statistics for the SHY-SR

Variable	Median	Mean	Standard deviation	Min	Max
SHY_IP	7.500	8.322	5.928	0	23.000
SHY_BISS	3.000	4.381	4.416	0	19.000
SHY_SAPF	12.000	18.601	19.827	0	90.000
SHY_SA	0.000	0.559	.920	0	4.000
SHY_TOT	25.000	31.864	28.321	0	125.000

SHY_IP: interpersonal; SHY_BISS: Behavioural inhibition and somatic symptoms; SHY_SAPF: Specific anxieties and phobic features; SHY_SA: substance abuse.

Table 4.5

Category distribution of respondents

Category	frequency	Percentage
low scorers (<59)	101	86%
medium scorers (59 – 67)	4	3%
high scorers (>=68)	13	11%

This means that 11% of the current sample meets the criteria for social anxiety disorder.

4.3.2 The Job Characteristics Scale (JCS)

The results reported for the JCS were calculated by using the individual raw scores per item for each of the dimensions of the constructs measured.

Questions 31, 32, 33, 36 and 43 were removed from the JCS, because the questions were not relevant to the participants' work environment. The scores for questions 3 and 10 were reverse scored. Table 4.6 sets out the descriptive statistics for the JCS.

Table 4.6

Descriptive statistics for the JSC

Variable	Median	Mean	Standard deviation	Min	Max
JCS_O	23.000	22.667	4.152	12.000	32.000
JCS_GO	27.000	26.684	5.796	11.000	39.000
JCS_OS	48.000	48.410	8.096	28.000	64.000
JCS_JS	6.000	6.539	2.854	3.000	12.000
JCS_A	12.000	11.598	3.312	5.000	20.000
JCS_Demands	29.000	29.2051	5.294	17.000	43.000
JCS_Resources	87.000	86.692	14.465	49.000	114.000

JCS_O: overload; JCS_GO: growth opportunities; JCS_OS: organisational support; JCS_JS: job security; JCS_A: advancement.

The calculation of the statistics for JCS-Demands and JCS-Overload is based on a factor analysis described in paragraph 4.6.2.

4.3.3 The Work Limitations Questionnaire (WLQ)

The WLQ scores were also obtained by calculating the sum of the individual raw scores, whilst the physical dimension of the WLQ was reverse scored. Table 4.7 sets out the descriptive statistics for the WLQ.

Table 4.7

Descriptive statistics for the WLQ

Variable	Median	Mean	Standard deviation	Min	Max
WLQ_TM	1.800	1.963	0.959	1.000	4.600
WLQ_P	4.667	4.013	1.307	1.000	5.000
WLQ_MI	1.667	1.920	0.975	1.000	4.780
WLQ_O	1.400	1.793	1.001	1.000	4.600
WLQ_TOT	9.133	9.677	2.903	4.000	16.290

WLQ_T: time management; WLQ_P: physical; WLQ_M: mental-interpersonal; WLQ_O: output.

The mean for the total score is 9.68 and the standard deviation is 2.90.

4.3.4 The Perceived Performance Difficulties Scale (PPDS)

The scores for the PPS were also obtained by calculating the sum of the individual ratings of the items of each dimension. The descriptive statistics are listed in Table 4.8.

Table 4.8

Descriptive statistics for the PPD

Variable	Median	Mean	Standard deviation	Min	Max
PPD_SC	4.000	4.776	2.844	2.000	14.000
PPD_OE	7.000	7.922	4.181	3.000	21.000
PPD_LD	4.500	5.439	3.071	2.000	14.000
PPD_AI	8.000	8.448	4.596	3.000	21.000
PPD_AC	5.000	5.646	3.043	2.000	14.000
PPD_CC	8.000	8.810	4.729	3.000	21.000
PPD_IP	8.000	8.828	4.443	3.000	21.000
PPD_EP	6.000	5.956	3.077	2.000	14.000
PPD_TOT	50.000	55.828	25.679	20.000	129.000

PPDS_LD: leading and deciding; PPDS_SC: supporting and cooperating; PPDS_IP: interacting and presenting; PPDS_AI: analyzing and interpreting; PPDS_CC: creating and conceptualising; PPDS_OE: Organising and executing; PPDS_AC: adapting and coping; PPDS_EP: enterprising and performing.

The dimensions in the table are rank ordered in terms of perceived difficulty, from the dimension with the lowest mean score, to the dimension with the highest mean score. Therefore, enterprising and performing was rated as the dimension which respondents experienced the most difficulties with. The second most difficult task was interacting and presenting.

4.4 THE PSYCHOMETRIC PROPERTIES OF THE MEASUREMENT INSTRUMENTS

The psychometric properties of the measurement instruments were investigated. Firstly, the internal consistency and item-total correlations for the dimensions of each instrument were assessed. The alpha for the total score was calculated by

means of subscale scores that were used as the items. Secondly, the Guttman split-half reliabilities were calculated. The subscale intercorrelations were also investigated. Due to the small sample size ($n = 118$), factor analyses were not conducted on each instrument. An exploratory principle component analysis was only conducted on the intercorrelations between the five JCS dimensions to determine whether higher order factors could be identified.

4.4.1 The Social Anxiety Scale

The internal consistency of the dimensions was assessed by calculating the Cronbach alpha's. The inter-item correlations were also calculated. The results are listed in Table 4.9.

Table 4.9

Reliability and item analysis for the SHY dimensions

Variable	Number of Items	Average inter-item correlation	Cronbach alpha
SHY_IP	29	.321	.928
SHY_BISS	23	.399	.931
SHY_SAPF	98	.541	.987
SHY_SA	6	.891	.766
SHY_TOT	4	.552	.587

Table 4.10 displays the internal consistency and item analysis for the total score.

Table 4.10

Reliability and item analysis for the total score

Variable	Item-Total correlation	Alpha if deleted
SHY_IP	.722	.401
SHY_BISS	.782	.451
SHY_SAPF	.822	.613
SHY_SA	.372	.641

The Guttman split-half reliability was calculated for the subscales. The split-half reliability for the interpersonal scale was .897, for the behavioural inhibition and somatic symptoms subscale .960 and for the specific anxieties and phobic features it was calculated as .991.

4.4.2 The Job Characteristics Scale

The Cronbach alpha's for the JCS are all above .78 and are listed in Table 4.11.

Table 4.11

Reliability and item analysis for the JCS

Variable	Number of items	Average inter-item correlation	Cronbach alpha
JCS_O	8	.327	.788
JCS_GO	10	.399	.861
JCS_OS	16	.342	.886
JCS_JS	3	.783	.912
JCS_A	5	.429	.779

4.4.3 The Work Limitations Questionnaire

The reliability and item analysis for the WLQ dimensions is listed in Table 4.12.

Table 4.12

Reliability and item analysis for the WLQ dimensions

Variable	Number of items	Average inter-item correlation	Cronbach alpha
WLQ_TM	5	.602	.878
WLQ_P	6	.835	.963
WLQ_MI	9	.721	.955
WLQ_O	5	.817	.954
WLQ_TOT	4	.472	.618

The reliability and item analysis for the WLQ total score is listed in Table 4.13.

Table 4.13

Reliability and item analysis for the WLQ total score

Variable	Item-Total correlation	Alpha if deleted
WLQ_TM	.621	.401
WLQ_P	-.071	.922
WLQ_MI	.682	.351
WLQ_O	.692	.334

The item-total correlations of all of the dimensions of work limitations are above 0.6, except for the physical dimension.

4.4.4 The Perceived Performance Difficulties Scale

The reliability and item analysis for the PPD dimensions are listed in Table 4.14.

Table 4.14

Reliability and item analysis for the PPD dimensions

Variable	Number of items	Average inter-item correlation	Cronbach alpha
PPD_LD	2	.815	.897
PPD_SC	2	.675	.806
PPD_IP	3	.686	.867
PPD_AI	3	.726	.883
PPD_CC	3	.752	.897
PPD_OE	3	.689	.868
PPD_AC	2	.723	.839
PPD_EP	2	.705	.827
PPD_TOT	20	.690	.940

The reliability and item analysis for the PPD total score is listed in Table 4.15.

Table 4.15

Reliability and item analysis for the PPD total score

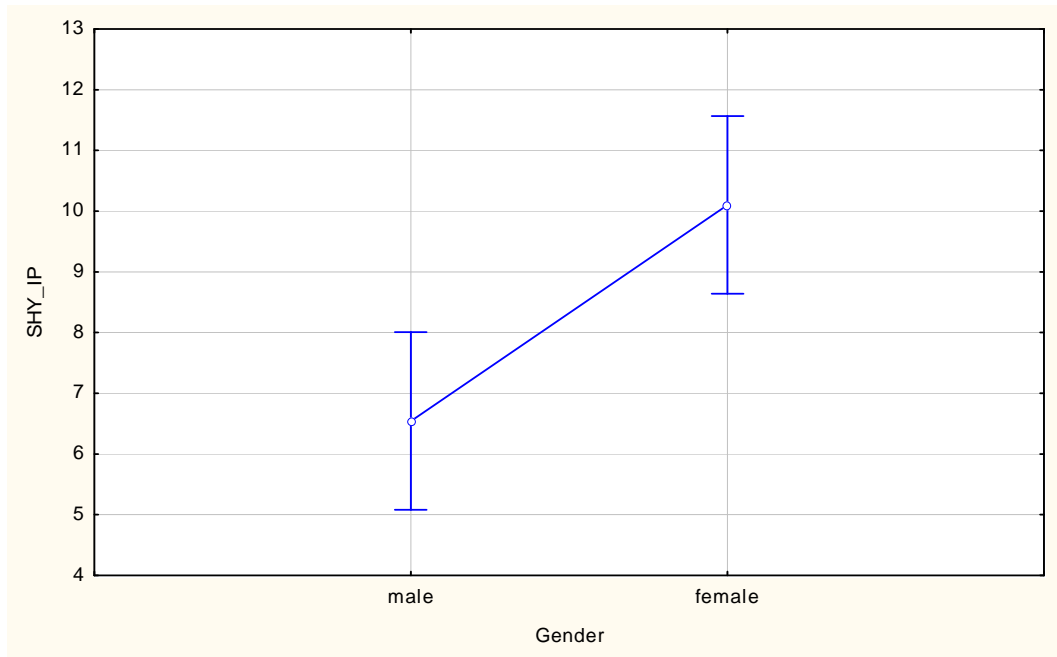
Variable	Item-Totl correlation	Alpha if deleted
PPD_LD	.72	.94
PPD_SC	.72	.94
PPD_IP	.81	.93
PPD_AI	.81	.93
PPD_CC	.87	.93
PPD_OE	.88	.93
PPD_AC	.82	.93
PPD_EP	.80	.93

All of the item-total correlations are above 0.7.

4.5 Between Group Comparisons for the Dimensions of Social Anxiety

A series of one-way between group analyses (ANOVA) were conducted to explore the differences between groups grouped in terms of gender, educational level and marital status in terms of reported mean scores on the dimensions of the SHY-SR dimensions. In some cases, a non-normal distribution was found where data deviated from the norm. Non-parametric tests were therefore used. The Mann-Whitney U test was used when two groups were compared and the Kruskal-Wallis test was used when more than two groups were compared.

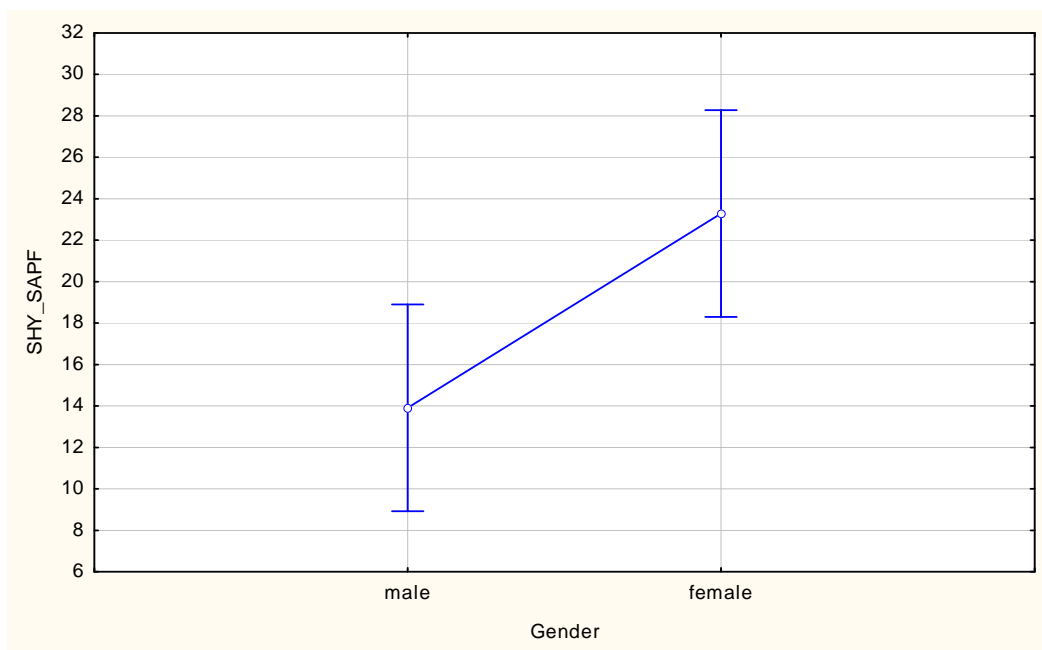
Statistically significant differences were found between males and females on two of the social anxiety dimensions, namely the interpersonal dimension, and the specific anxieties and phobic features dimensions. Women reported higher social anxiety symptoms on both dimensions. Figure 4.1 and Figure 4.2 displays the findings.



Current effect: $F(1, 116)=11.598$, $p<.01$ Mann-Whitney U $p<.01$; Vertical bars denote .95 confidence intervals

Figure 4.1

Gender differences on the SHY_IP dimension.



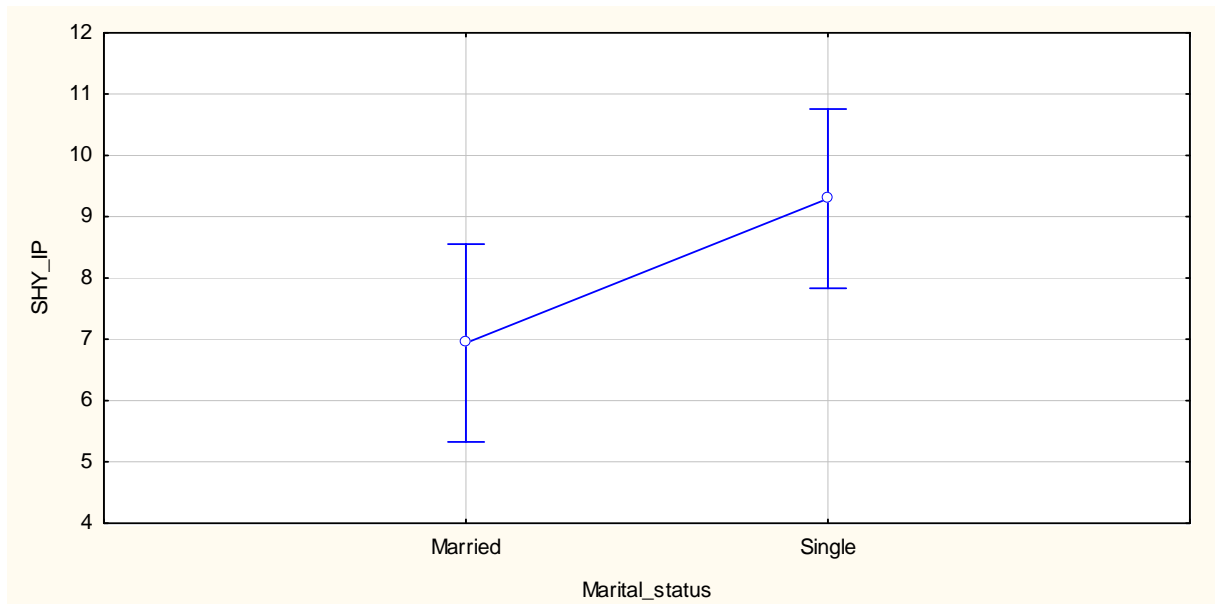
Current effect: $F(1, 116)=6.9268$, $p<.01$ Mann-Whitney U $p=.03$; Vertical bars denote .95 confidence intervals

Figure 4.2

Gender differences on the SHY_SAPF dimension.

The second analysis was between three qualification groups (matric, diploma/degree and post graduate) and the Kruskal-Wallis test indicated that no significant differences were found between qualification status and reported social anxiety symptoms.

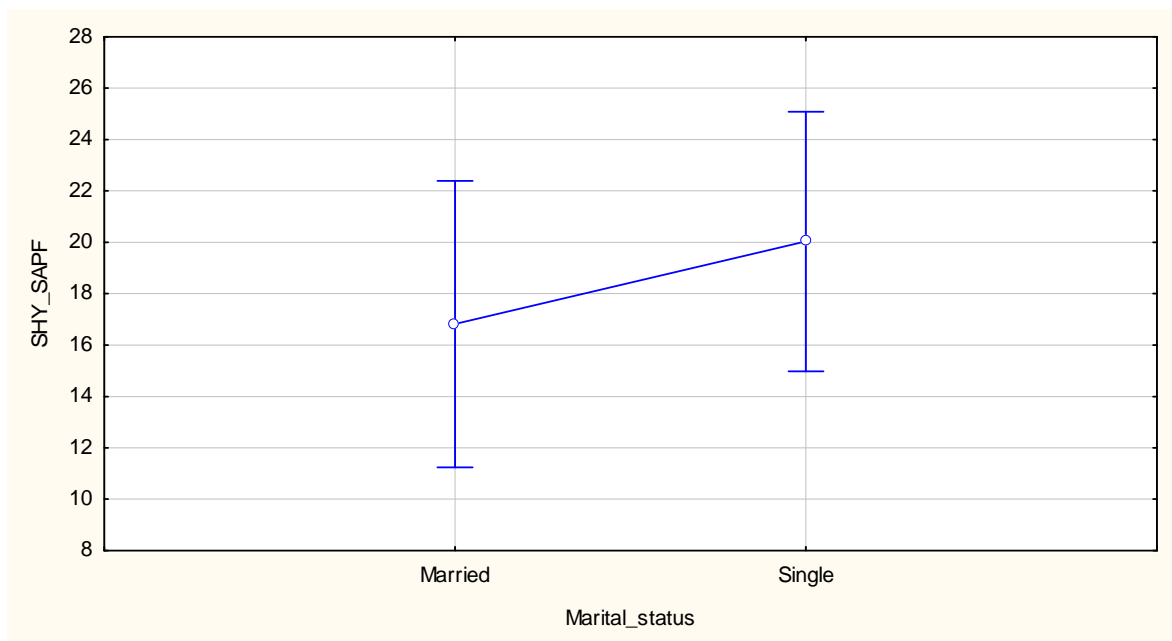
Statistically significant differences, however, were found between types of marital status on two of the social anxiety dimensions, namely interpersonal and specific anxieties and phobic features. Single participants reported higher social anxiety symptoms on the two dimensions. The following two groups were compared, namely married and single. The results are listed in Figure 4.3 and 4.4.



Current effect: $F(1, 109)=4.6022$, $p=.03$ Mann-Whitney U $p=0.03$; Vertical bars denote .95 confidence intervals

Figure 4.3

Marital status differences on the SHY_IP dimension.



Current effect: $F(1, 109)=.71660$, $p=0.40$ Mann-Whitney U $p=0.04$; Vertical bars denote 0.95 confidence intervals

Figure 4.4

Marital status differences on the SHY_SAPF dimension.

4.6 SUBSCALE INTERCORRELATIONS

The strength of the correlations was assessed using Cohen's (1988) index of practical significance (effect size). A correlation with $r = \pm .1$ to $\pm .29$ was considered a weak correlation (small effect size), whilst a correlation with $r = \pm .3$ to $\pm .49$ was considered a moderate correlation (medium effect size) and a correlation with $r = \pm .50$ to ± 1.0 was considered a strong correlation with a large effect size.

4.6.1 The Social Anxiety Scale

The intercorrelations among the SHY subscales were all positive and between .35 – .77 and are listed in table 4.16.

Table 4.16

Intercorrelations between the SHY dimensions

	SHY_IP	SHY_BISS	SHY_SAPF	SHY_SA
SHY_IP	1.00			
SHY_BISS	.61**	1.00		
SHY_SAPF	.71**	.77**	1.00	
SHY_SA	.30**	.42**	.35**	1.00

* $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

A strong correlation was found between interpersonal symptoms and specific anxieties and phobic features ($r = .71$, $n = 118$, $p < .01$). A strong correlation was also found between behavioural inhibition and somatic symptoms, and specific anxieties and phobic features ($r = .77$, $n = 118$, $p < .01$). Substance abuse was clearly not that highly correlated with the rest of the subscales.

4.6.2 The Job Characteristics Scale

Strong positive relationships were found between Growth Opportunities and Organisational Support ($r = .58$, $n = 118$, $p < .01$), and Growth Opportunities and Advancement ($r = .66$, $n = 118$, $p < .01$). A significant relationship was also found between Organisational Support and Advancement ($r = .35$, $n = 118$, $p < .01$).

Table 4.17

Intercorrelations between JCS dimensions

	JCS_O	JCS_GO	JCS_OS	JCS_JS	JCS_A
JCS_O	1.00				
JCS_GO	.19*	1.00			
JCS_OS	-.07	.58**	1.00		
JCS_JS	.11	-.16	-.01	1.00	
JCS_A	.02	.66**	.35**	-.13	1.00

An exploratory factor analysis was conducted on the intercorrelation matrix of the JCS five first order correlations to determine whether higher order factors exist (Table 4.18). Two factors with eigenvalues of 2.11 and 1.12 respectively were extracted and the factors explained 42.25% and 22.33% of the total variance respectively.

Table 4.18

Factor loadings (Varimax normalized)

Variable	Job Resources	Job Demands
JCS_O	-.15	.82
JCS_GO	.93	-.07
JCS_OS	.73	.08
JCS_JS	.19	.66
JCS_A	.81	.07

The one factor was labelled job demands, and included overload (loading = .82) and job security (loading = .66). The other factor was labelled job resources and included growth opportunities (loading = .93), organisational support (loading = .73) and advancement (loading = .81).

4.6.3 The Work Limitations Questionnaire

Three significant relationships were found between the WLQ dimensions. The results are listed in Table 4.19.

Table 4.19

Intercorrelations between the WLQ dimensions

	WLQ_TM	WLQ_P	WLQ_MI	WLQ_O
WLQ_TM	1.00			
WLQ_P	-.01	1.00		
WLQ_MI	.78**	-.08	1.00	
WLQ_O	.78**	-.04	.86**	1.00

WLQ_T: time management; WLQ_P: physical; WLQ_M: mental-interpersonal; WLQ_O: output.

A strong positive relationship was found between time management and mental-interpersonal limitations ($r = .78$, $n = 118$, $p < .01$). A strong positive relationship was also found between time management and output limitations ($r = .78$, $n = 118$, $p < .01$). The relationship between mental interpersonal and output limitations was also a strong positive relationship ($r = .86$, $n = 118$, $p < .01$).

4.6.4 The Perceived Performance Difficulties Scale

All of the PPDS dimensions correlated strongly with each other in a positive direction. All of the correlations were also found to be of a large effect size. The intercorrelation matrix is presented in Table 4.20.

Table 4.20

Intercorrelations between the PPDS dimensions

	PPDS_LD	PPDS_SC	PPDS_IP	PPDS_AI	PPDS_CC	PPDS_OE	PPDS_AC	PPDS_EP
PPDS_LD	1.00							
PPDS_SC	.52**	1.00						
PPDS_IP	.71**	.67**	1.00					
PPDS_AI	.66**	.59**	.69**	1.00				
PPDS_CC	.63**	.66**	.70**	.79**	1.00			
PPDS_OE	.66**	.69**	.72**	.73**	.81**	1.00		
PPDS_AC	.56**	.63**	.66**	.66**	.75**	.84**	1.00	
PPDS_EP	.54**	.54**	.69**	.67**	.78**	.75**	.78**	1.00

The strongest relationship was found between organising and executing limitations and adapting and coping limitations ($r = .84$, $n = 118$, $p < .01$). The second largest correlation was between creating and conceptualising and organising and executing ($r = .81$, $n = 118$, $p < .01$).

4.7 INTERCORRELATIONS BETWEEN SELECTED VARIABLES

One of the objectives of the study was to determine whether relationships exist between the four constructs: social anxiety, job characteristics, work limitations and perceived performance difficulties. The observed intercorrelations found will be reported below.

4.7.1 The Relationship between Social Anxiety Symptoms and Work Limitations.

The relationship between the social anxiety spectrum and work limitations were investigated through the calculation of various Spearman-rank order correlations. The results are presented in Table 4.21.

Table 4.21

Correlations between SHY and WLQ dimensions

	WLQ_T	WLQ_P	WLQ_M	WLQ_O
SHY_IP	.33***	-.20*	.34***	.38***
SHY_BISS	.48***	-.19*	.42***	.51***
SHY_SAPF	.48***	-.26**	.44***	.44***
SHY_SA	.27**	-.05	.34***	.25**

* $p \leq 0.05$

** $p \leq 0.01$

*** $p \leq 0.001$

Respondent's who reported more interpersonal social anxiety symptoms also reported higher time management, mental-interpersonal and output limitations. The correlations between interpersonal social anxiety and time management ($r = .33$, $n = 118$, $p \leq .001$), mental-interpersonal limitations ($r = .34$, $n = 118$, $p \leq .001$) and work output limitations ($r = .38$, $n = 118$, $p \leq .001$) are all moderate correlations. A weak negative correlation was found between interpersonal social anxiety and physical work limitations.

Moderate correlations were found between behavioural inhibition and somatic symptoms and time management limitations ($r = .48$, $n = 118$, $p \leq .001$) as well as with mental-interpersonal limitations ($r = .42$, $n = 118$, $p \leq .001$). A strong correlation was found between behavioural inhibition and somatic symptoms and output limitations ($r = .51$, $n = 118$, $p \leq .001$). The more behavioural inhibition and somatic symptoms the respondent's reported, the more output limitations they reported. Behavioural inhibition and somatic symptoms may therefore prevent employees from delivering their optimal outputs. The correlation

between behavioural inhibition and somatic symptoms and physical limitations is, however, a weak negative correlation.

Moderate positive correlations were found between specific anxieties and phobic features symptoms and three of the work limitations dimensions, time management limitations ($r = .48$, $n = 118$, $p \leq .001$), mental-interpersonal limitations ($r = .44$, $n = 118$, $p \leq .001$) and output limitations ($r = .44$, $n = 118$, $p \leq .001$). This may be interpreted that the more specific anxieties and phobic features respondents reported, the higher work limitations they experience with regard to time management, mental-interpersonal and output. A weak negative correlation was found between specific anxieties and phobic features and physical limitations.

A moderate relationship was found between substance abuse and mental-interpersonal limitations ($r = .34$, $n = 118$, $p \leq .001$). This indicates that the respondents who more often engaged in substance abuse, reported higher levels of mental-interpersonal limitations. The substance abuse may be the reason for the limitations, or the mental-interpersonal limitations may be the cause of the substance abuse. Moderate correlations were also found between substance abuse and time management limitations ($r = .34$, $n = 118$, $p \leq .01$) and output limitations ($r = .34$, $n = 118$, $p \leq .01$).

4.7.2 The Relationship between Social Anxiety Symptoms and Job Characteristics

The relationship between the social anxiety spectrum dimensions and job characteristics dimensions were investigated through the calculation of various Spearman rank order correlations. The results are presented in Table 4.22.

Table 4.22

Correlations between SHY and JCS dimensions

	JCS_O	JSC_GO	JSC_OS	JCS_JS	JCS_A	JCS_Demands	JCS_Resources
SHY_IP	.09	-.18*	-.29***	.24**	-.16	.17	-.28***
SHY_BISS	.07	-.08	-.13	.31***	-.06	.22*	-.13
SHY_SAPF	.02	-.20*	-.28***	.34***	-.10	.18*	-.26***
SHY_SA	-.01	.02	-.18	.01	-.04	.03	-.10

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Weak negative correlations were found between the social anxiety interpersonal dimension and organisational support ($r = .29$, $n = 118$, $p \leq .001$) as well as with growth opportunities ($r = -.18$, $n = 118$, $p \leq .05$). It also had a weak positive correlation with job insecurity ($r = .24$, $n = 118$, $p \leq .001$). Therefore, the more interpersonal symptoms the respondent's reported, the less organisational support and growth opportunities they reported. It is therefore not surprising to find a moderate negative correlation between interpersonal social anxiety and job resources. Weak negative correlations were also found between specific anxieties and phobic features and growth opportunities ($r = -.20$, $n = 118$, $p \leq 0.01$) and organisational support ($r = -.28$, $n = 118$, $p \leq 0.001$). This finding was also echoed by the moderate negative correlation between specific anxieties and phobic features and job resources.

A moderate correlation was found between behavioural inhibition and job insecurity ($r = .31$, $n = 118$, $p \leq .001$) as well as between specific anxieties and phobic features and job insecurity ($r = .34$, $n = 118$, $p \leq .001$). Both of these social anxiety dimensions also correlated with job demands.

4.7.3 The Relationship between Social Anxiety Symptoms and Perceived Performance Difficulties.

The relationships between the dimensions of the social anxiety spectrum and perceived performance difficulties were investigated through the calculation of various Spearman rank order correlations. The results are presented in Table 4.23, with a number of statistically significant relationships emerging between the dimensions.

Table 4.23

Correlations between SHY and PPDS dimensions

	SHY_IP	SHY_BISS	SHY_SAPF	SHY_SA
PPDS_LD	.41***	.40***	.47***	.18
PPDS_SC	.19*	.34***	.31***	.16
PPDS_IP	.39***	.38***	.49***	.20
PPDS_AI	.24**	.26***	.42***	.08
PPDS_CC	.23**	.32***	.38***	.11
PPDS_OE	.23**	.31***	.37***	.24
PPDS_AC	.26**	.33***	.37***	.31
PPDS_EP	.25**	.28***	.31***	.10

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

A weak correlation was found between perceived performance difficulties with respect to supporting and cooperating and interpersonal symptoms ($r = .19$, $n = 118$, $p \leq .05$). Weak correlations were also found between perceived performance difficulties with respect to analyzing and interpreting and social anxiety interpersonal symptoms ($r = .24$, $n = 118$, $p \leq .05$) and behavioural inhibition and somatic symptoms ($r = .26$, $n = 118$, $p \leq .001$). Weak correlations were found between interpersonal social anxiety symptoms and perceived performance difficulties with respect to creating and conceptualizing ($r = .23$, $n = 118$, $p \leq .01$), organising and executing ($r = .23$, $n = 118$, $p \leq .01$), adapting and

coping ($r = .26$, $n = 118$, $p \leq .01$) and enterprising and performing ($r = .25$, $n = 118$, $p \leq .01$). A weak correlation was also found between perceived performance difficulties with respect to enterprising and performing and behavioural inhibition and somatic symptoms ($r = .28$, $n = 118$, $p \leq .01$)

Moderate correlations were found between perceived performance difficulties with respect to leading and deciding and the following SHY dimensions: interpersonal social anxiety symptoms ($r = .41$, $n = 118$, $p \leq .001$), behavioural inhibition and somatic symptoms ($r = .40$, $n = 118$, $p \leq .001$) and specific anxieties and phobic features ($r = .47$, $n = 118$, $p \leq .001$). Social anxiety symptoms on those three dimensions were therefore found to have a positive relationship, with perceived performance difficulties related to leading and deciding.

Moderate relationships were also found between perceived performance difficulties with respect to supporting and cooperating and two of the SHY dimensions, namely behavioural inhibition and somatic symptoms ($r = .34$, $n = 118$, $p \leq .001$) and specific anxieties and phobic features ($r = .31$, $n = 118$, $p \leq .001$).

Moderate relationships were found between perceived performance difficulties with respect to interacting and presenting and the following three SHY dimensions: interpersonal symptoms ($r = .39$, $n = 118$, $p \leq .001$), behavioural inhibition and somatic symptoms ($r = .38$, $n = 118$, $p \leq .001$) and specific anxieties and phobic features ($r = .49$, $n = 118$, $p \leq .001$).

Moderate correlations were found between perceived performance difficulties with respect to analyzing and interpreting and specific anxieties and phobic features ($r = .42$, $n = 118$, $p \leq .001$). Two moderate correlations were found between the social anxiety dimensions and perceived performance difficulties with respect to creating and conceptualising. The two SHY dimensions are

behavioural inhibition and somatic symptoms ($r = .31$, $n = 118$, $p \leq .001$) and specific anxieties and phobic features ($r = .37$, $n = 118$, $p \leq .001$).

Two moderate correlations were found between perceived performance difficulties with respect to organising and executing and the SHY dimensions, namely behavioural inhibition and somatic symptoms ($r = .31$, $n = 118$, $p \leq .001$) and specific anxieties and phobic features ($r = .37$, $n = 118$, $p \leq .001$). Two moderate correlations were found between perceived performance difficulties with respect to adapting and coping and the SHY dimensions, namely behavioural inhibition and somatic symptoms ($r = .33$, $n = 118$, $p \leq .001$) and specific anxieties and phobic features ($r = .37$, $n = 118$, $p \leq .001$). A moderate correlation was also found between perceived performance difficulties with respect to enterprising and performing and the SHY dimension, specific anxieties and phobic features ($r = .31$, $n = 118$, $p \leq .001$).

4.7.4 The Relationship between Job Characteristics and Perceived Performance Difficulties.

The relationships between the dimensions of job characteristics and perceived performance difficulties were investigated through the calculation of various Spearman rank order correlation coefficients. The results are presented in Table 4.24.

Table 4.24

Correlations between JCS and PPDS dimensions

	JCS_O	JCS_GO	JCS_OS	JCS_JS	JCS_A	JCS_Resources	JCS_Demands
PPDS_LD	-.09	-.27***	-.20*	.10	-.08	-.23**	-.03
PPDS_SC	-.02	-.10	-.09	.23*	-.04	-.09	.14
PPDS_IP	-.15	-.22*	-.14	.20*	-.10	-.18	.00
PPDS_AI	-.04	-.35***	-.24**	.22*	-.11	-.28***	.08
PPDS_CC	-.06	-.30***	-.20*	.23**	-.15	-.24**	.09
PPDS_OE	-.06	-.21*	-.19*	.20*	.00	-.16	.07
PPDS_AC	-.09	-.11	-.09	.21*	-.03	-.07	.06
PPDS_EP	-.03	-.17	-.13	.20*	-.05	-.12	.10

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Weak negative correlations were found between growth opportunities and the following perceived performance difficulties scales: leading and deciding ($r = -.27$, $n = 118$, $p \leq .001$), interacting and presenting ($r = -.22$, $n = 118$, $p \leq .05$) and organising and executing ($r = -.21$, $n = 118$, $p \leq .05$). Weak negative correlations were also found between organisational support and the perceived performance difficulties dimensions, namely leading and deciding ($r = -.20$, $n = 118$, $p \leq .05$), analysing and interpreting ($r = -.24$, $n = 118$, $p \leq .01$), creating and conceptualising ($r = -.20$, $n = 118$, $p \leq .05$) and organising and executing ($r = -.19$, $n = 118$, $p \leq .05$).

Weak correlations were found between job insecurity and the perceived performance difficulties dimensions, namely supporting and cooperating ($r = .23$, $n = 118$, $p \leq .05$), interacting and presenting ($r = .20$, $n = 118$, $p \leq .05$), analysing and interpreting ($r = .22$, $n = 118$, $p \leq .05$), creating and conceptualising ($r = .23$, $n = 118$, $p \leq .01$), organising and executing ($r = .20$, $n = 118$, $p \leq .05$), adapting and coping ($r = .20$, $n = 118$, $p \leq .05$) and enterprising and performing ($r = .20$, $n = 118$, $p \leq .05$).

Moderate negative relationships were found between growth opportunities and the following perceived performance difficulties scales: analyzing and interpreting ($r = -.35$, $n = 118$, $p \leq .001$) and creating and conceptualising ($r = -.30$, $n = 118$, $p \leq .001$). It is noteworthy that the aggregated score for job demands did not correlate significantly with any of the PPDS dimensions, while the job resources score had weak negative correlations with leading deciding, analyzing and interpreting, and creating and conceptualising.

4.7.5 The Relationship between Job Characteristics and Work Limitations

The relationships between the dimensions of job characteristics and work limitations were investigated through the calculation of various Spearman rank order correlations. The results are presented in Table 4.25.

Table 4.25

Correlations between JCS and WLQ dimensions

	WLQ_TM	WLQ_P	WLQ_MI	WLQ_O
JCS_O	.22*	-.09	.09	.21*
JCS_GO	-.02	-.02	.04	.00
JCS_OS	-.03	-.03	-.02	.00
JCS_JS	.24**	-.26**	.22*	.27***
JCS_A	-.04	-.03	.00	-.09
JCS_Resources	-.04	-.03	.00	-.03
JCS_Demands	.31***	-.20*	.20*	.32***

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

Weak correlations were found between overload and the work limitations dimensions, namely time management ($r = .22$, $n = 118$, $p \leq .05$) and output ($r = .21$, $n = 118$, $p \leq .05$).

The relationship between job insecurity and time management limitations ($r = .24$, $n = 118$, $p \leq .01$), mental interpersonal limitations ($r = .22$, $n = 118$, $p \leq .05$) and

output limitations ($r = .27$, $n = 118$, $p \leq .001$) were all weak correlations. A weak negative correlation was also found between job insecurity and physical limitations ($r = -.26$, $n = 118$, $p \leq .01$).

4.8 MULTIPLE REGRESSION RESULTS

An all subsets regression analysis was conducted, in which r^2 and the number of variables were used to determine the optimal model. The analysis was conducted to explore firstly, how much variance in the dependent variable is explained as a whole by all the independent variables and secondly, to determine which specific independent variables explain the most unique variance in the dependent variable.

4.8.1 Regression Analysis: Social Anxiety Symptoms and Work Limitations

Regression analyses were conducted to determine which dimensions of the SHY (behavioural inhibition and somatic symptoms, interpersonal, specific anxieties and phobic features, substance abuse) explained most of the variance in each of the WLQ dimensions (time management, physical, mental-interpersonal, output). The results are listed in Table 4.26 – 4.29.

Table 4.26

Regression summary for WLQ Time Management as dependent variable and the SHY dimensions as predictors.

R ² = .330; Adjusted R ² = .324; F(1,111)=54.773 p<.000; Std.Error of estimate= .789				
	beta	Std.Err. - of beta	t(111)	p-value
SHY_BISS	.575	.078	7.401	.000
SHY_IP	Excluded			
SHY_SAPF	Excluded			
SHY_SA	Excluded			

The Shy dimensions explained 33% of the variance in time management work limitations. Only SHY_BISS reached significance as a predictor in this regression model.

Table 4.27

Regression summary for WLQ Physical as dependent variable and the SHY dimensions as predictors.

R ² = .061; Adjusted R ² = .044; F(2,108)=3.535; p<.032; Std.Error of estimate= 1.278				
	beta	Std.Err. - of beta	t(108)	p-value
SHY_BISS	-.263	.099	-2.658	.009
SHY_IP	.089	.099	.907	.366
SHY_SAPF	Excluded			
SHY_SA	Excluded			

The Shy dimensions explained 6% of the variance in time management work limitations. Only SHY_BISS reached significance as a predictor in this regression model.

Table 4.28

Regression summary for WLQ Mental-interpersonal as dependent variable and the SHY dimensions as predictors.

R ² = .311; Adjusted R ² = .298; F(2,112)=25.286; p<.000; Std.Error of estimate= .816				
	beta	Std.Err. - of beta	t(112)	p-value
SHY_SAPF	.484	.083	5.794	.000
SHY_SA	.156	.084	1.862	.065
SHY_IP	Excluded			
SHY_BISS	Excluded			

The SHY dimensions explained 31% of the variance in mental-interpersonal work limitations. Only SHY_SAPF reached significance as a predictor in this regression model.

Table 4.29

Regression summary for WLQ Output as dependent variable and the SHY dimensions as predictors.

R ² = .2807; Adjusted R ² = .267; F(2,111)=21.661; p<.000; Std.Error of estimate= .860				
	beta	Std.Err. - of beta	t(111)	p-value
SHY_SAPF	.441	.086	5.149	.000
SHY_SA	.178	.086	2.082	.039
SHY_IP	Excluded			
SHY_BISS	Excluded			

The SHY dimensions explained 28% of the variance in mental-interpersonal work limitations. Only SHY_SAPF and SHY_SA reached significance as predictors in this regression model.

4.8.2 Regression analysis: Social Anxiety Symptoms and Perceived performance difficulties

Regression analyses were conducted to determine which dimensions of the SHY (behavioural inhibition and somatic symptoms, interpersonal, specific anxieties and phobic features, substance abuse) explained most of the variance in each of the PPDS dimensions. The results are listed in Table 4.30 – Table 4.38.

Table 4.30

Regression summary for PPDS Leading and Deciding as dependent variable and the SHY dimensions as predictors.

R ² = .258; Adjusted R ² = .244; F(2,113)=19.614; p<.000; Std.Error of estimate= 2.669				
	beta	Std.Err. - of beta	t(113)	p-value
SHY_IP	.358	.101	3.536	.001
SHY_BISS	.203	.101	2.003	.047
SHY_SAPF	Excluded			
SHY_SA	Excluded			

The SHY dimensions explained 26% of the variance in perceived performance difficulties with regards to leading and deciding. Only SHY_IP and SHY_BISS reached significance as predictors in this regression model.

Table 4.31

Regression summary for PPDS Supporting and Cooperating as dependent variable and the SHY-dimensions as predictors.

R ² = .139; Adjusted R ² = .131; F(1,114)=18.451; p<.000; Std.Error of estimate= 2.65				
	beta	Std.Err. - of beta	t(114)	p-value
SHY_BISS	.373	.087	4.295	.000
SHY_IP	Excluded			
SHY_SAPF	Excluded			
SHY_SA	Excluded			

The SHY dimensions explained 14% of the variance in perceived performance difficulties with regards to supporting and cooperating. Only SHY_BISS reached significance as a predictor in this regression model.

Table 4.32

Regression summary for PPDS Interacting and Presenting as dependent variable and the SHY-dimensions as predictors.

R ² = .221; Adjusted R ² = .207; F(2,113)=16.041; p<.000; Std.Error of estimate= 3.956				
	beta	Std.Err. - of beta	t(113)	p-value
SHY_IP	.323	.104	3.116	.002
SHY_BISS	.198	.104	1.904	.059
SHY_SAPF	Excluded			
SHY_SA	Excluded			

The SHY dimensions explained 22% of the variance in perceived performance difficulties with regards to interacting and presenting. Only SHY_IP reached significance as a predictor in this regression model.

Table 4.33

Regression summary for PPDS Analyzing and Interpreting as dependent variable and the SHY-dimensions as predictors.

R ² = .134; Adjusted R ² = .126; F(1,114)=17.715; p<.000; Std.Error of estimate= 4.29				
	beta	Std.Err. - of beta	t(114)	p-value
SHY_SAPF	.367	.087	4.208	.000
SHY_IP	Excluded			
SHY_BISS	Excluded			
SHY_SA	Excluded			

The SHY dimensions explained 13% of the variance in perceived performance difficulties with regards to analyzing and interpreting. Only SHY_SAPF reached significance as a predictor in this regression model.

Table 4.34

Regression summary for PPDS Creating and Conceptualizing as dependent variable and the SHY-dimensions as predictors.

R ² = .138; Adjusted R ² = .115; F(3,112)=6.012; p<.001; Std.Error of estimate= 4.447				
	beta	Std.Err. - of beta	t(112)	p-value
SHY_IP	.094	.109	.859	.392
SHY_BISS	.276	.116	2.390	.018
SHY_SA	.064	.097	.659	.511
SHY_SAPF	Excluded			

The SHY dimensions explained 14% of the variance in perceived performance difficulties with regards to creating and conceptualizing. Only SHY_BISS reached significance as a predictor in this regression model.

Table 4.35

Regression summary for PPDS Organizing and Executing as dependent variable and the SHY-dimensions as predictors

R ² = .178; Adjusted R ² = .163; F(2,113)=12.235; p<.000; Std.Error of estimate= 3.824				
	beta	Std.Err. - of beta	t(113)	p-value
SHY_BISS	.308	.094	3.291	.001
SHY_SA	.187	.094	1.996	.048
SHY_IP	Excluded			
SHY_SAPF	Excluded			

The SHY dimensions explained 18% of the variance in perceived performance difficulties with regards to organizing and executing. Only SHY_BISS and SHY_SA reached significance as predictors in this regression model.

Table 4.36

Regression summary for PPDS Adapting and Coping as dependent variable and the SHY-dimensions as predictors.

R ² = .212; Adjusted R ² = .199; F(2,113)=15.245; p<.000; Std.Error of estimate= 2.723				
	beta	Std.Err. - of beta	t(113)	p-value
SHY_BISS	.290	.092	3.162	.002
SHY_SA	.258	.092	2.809	.006
SHY_IP	Excluded			
SHY_SAPF	Excluded			

The SHY dimensions explained 21% of the variance in perceived performance difficulties with regards to adapting and coping. Only SHY_BISS and SHY_SA reached significance as predictors in this regression model.

Table 4.37

Regression summary for PPDS Enterprising and performing as dependent variable and the SHY-dimensions as predictors.

R ² = .124; Adjusted R ² = .108; F(2,113)=8.019; p<.001; Std.Error of estimate= 2.904				
	beta	Std.Err. - of beta	t(113)	p-value
SHY_IP	.179	.110	1.631	.106
SHY_BISS	.214	.110	1.941	.055
SHY_SAPF	Excluded			
SHY_SA	Excluded			

The SHY dimensions explained 12% of the variance in perceived performance difficulties with regards to adapting and coping. None of the SHY-dimensions reached significance as predictors in this regression model.

Table 4.38

Regression summary for PPDS Total as dependent variable and the SHY-dimensions as predictors.

R ² = .191; F(3,112)=10.070; p<.000; Std.Error of estimate= 23.093				
	beta	Std.Err. – of beta	t(112)	p-value
SHY_IP	.180	.105	1.713	.089
SHY_BISS	.280	.110	2.534	.012
SHY_SA	.094	.092	1.023	.308
SHY_SAPF	Excluded			

The SHY dimensions explained 19% of the variance in perceived performance difficulties with regards to adapting and coping. Only SHY_BISS reached significance as a predictor in this regression model.

4.8.3 Regression analysis: Work Limitations and SHY-dimensions and JCS-dimensions

Regression analyses were conducted to determine which dimensions of the SHY and which dimensions of the JCS explained most of the variance in each of the work limitations dimensions. The results are listed in Table 4.39 – Table 4.50.

Table 4.39

Regression summary for WLQ Time Management as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .382; Adjusted R ² = .352; F(5,106)=13.085; p < .000; Std.Error of estimate= .771				
N = 112	beta	Std.Err. - of beta	t(106)	p-value
SHY_BISS	.498	.089	5.537	.000
SHY_SA	.126	.087	1.445	.152
JCS O	.092	.077	1.191	.236
JCS OS	.142	.079	1.806	.072
JCS JS	.128	.081	1.579	.117
SHY_IP	Excluded			
SHY_SAPF	Excluded			
JCS GO	Excluded			
JCS A	Excluded			

The SHY- and JCS-dimensions explained 38% of the variance in time management work limitations. Only SHY_BISS reached significance as a predictor in this regression model.

Table 4.40

Regression summary for WLQ Physical as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .082; F(3,106)=4.238; p < .007; Std.Error of estimate= 1.243				
N = 110	beta	Std.Err. - of beta	t(106)	p-value
SHY_SAPF	-.150660	.098	-1.530	.128
JCS O	.103422	.093	1.114	.267
JCS JS	-.238300	.099	-2.398	.018
SHY_IP	Excluded			
SHY_BISS	Excluded			
SHY_SA	Excluded			
JCS GO	Excluded			
JCS OS	Excluded			
JCS A	Excluded			

The SHY- and JCS-dimensions explained 11% of the variance in physical work limitations. Only SHY_SAPF and JCS JS reached significance as predictors in this regression model.

Table 4.41

Regression summary for WLQ Mental-Interpersonal as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .353; Adjusted R ² = .335; F(3,110)=19.970; p < .000; Std. Error of estimate= .796				
	beta	Std.Err. - of beta	t(110)	p-value
SHY_SAPF	.530	.083	6.349	.000
SHY_SA	.191	.082	2.306	.022
JCS OS	.218	.081	2.695	.008
SHY_IP	Excluded			
SHY_BISS	Excluded			
JCS O	Excluded			
JCS GO	Excluded			
JCS JS	Excluded			
JCS A	Excluded			

The SHY- and JCS-dimensions explained 35% of the variance in physical work limitations. SHY_SAPF, SHY_SA and JCS OS reached significance as predictors in this regression model.

Table 4.42

Regression summary for WLQ Output as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .384; Adjusted R ² = .355; F(5,107)=13.348; p < .000; Std. Error of estimate= .803				
	beta	Std.Err. - of beta	T(107)	p-value
SHY_SAPF	.421	.089	4.713	.000
SHY_SA	.239	.083	2.903	.004
JCS O	.157	.077	2.047	.043
JCS OS	.244	.080	3.040	.003
JCS JS	.157	.083	1.895	.061
SHY_IP	Excluded			
SHY_BISS	Excluded			
JCS GO	Excluded			
JCS A	Excluded			

The SHY- and JCS-dimensions explained 38% of the variance in physical work limitations. SHY_SAPF, SHY_SA and JCS O, JCS OS reached significance as predictors in this regression model.

Table 4.43

Regression summary for PWD Leading and Deciding as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .302; Adjusted R ² = .283; F(3,111)=15.980; p < .000; Std.Error of estimate= 2.598				
	beta	Std.Err. - of beta	t(111)	p-value
SHY_IP	.294	.102	2.893	.005
SHY_BISS	.213	.099	2.142	.034
JCS GO	-.219	.082	-2.676	.009
SHY_SAPF	Excluded			
SHY_SA	Excluded			
JCS O	Excluded			
JCS OS	Excluded			
JCS JS	Excluded			
JCS A	Excluded			

The SHY- and JCS-dimensions explained 30% of the variance in perceived performance difficulties with regards to leading and deciding. SHY_SAPF, SHY_IP, SHY_BISS and JCS GO reached significance as predictors in this regression model.

Table 4.44

Regression summary for PWD Supporting and Cooperating as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .158; Adjusted R ² = .143; F(2,112)=10.486; p < .000; Std. Error of estimate= 2.630				
	beta	Std.Err. - of beta	t(112)	p-value
SHY_BISS	.335	.091	3.669	.000
JCS JS	.133	.091	1.462	.147
SHY_IP	Excluded			
SHY_SAPF	Excluded			
SHY_SA	Excluded			
JCS O	Excluded			
JCS GO	Excluded			
JCS OS	Excluded			
JCS A	Excluded			

The SHY- and JCS-dimensions explained 16% of the variance in perceived performance difficulties with regards to supporting and cooperating. Only SHY_BISS and JCS JS reached significance as predictors in this regression model.

Table 4.45

Regression summary for PWD Interacting and Presenting as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .255; Adjusted R ² = .235; F(3,111)=12.683; p < .000; Std.Error of estimate= 3.874				
	beta	Std.Err. - of beta	t(111)	p-value
SHY_IP	.327	.103	3.182	.002
SHY_BISS	.216	.103	2.102	.038
JCS O	-.188	.082	-2.288	.024
SHY_SAPF	Excluded			
SHY_SA	Excluded			
JCS GO	Excluded			
JCS OS	Excluded			
JCS JS	Excluded			
JCS A	Excluded			

The SHY- and JCS-dimensions explained 26% of the variance in perceived performance difficulties with regards to interacting and presenting. SHY_BISS, SHY_IP and JCS O reached significance as predictors in this regression model.

Table 4.46

Regression summary for PWD Analyzing and Interpreting as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .274; Adjusted R ² = .255; F(3,111)=13.991; p < .000; Std.Error of estimate= 3.960				
	beta	Std.Err. - of beta	t(111)	p-value
SHY_SAPF	.280	.084	3.350	.001
JCS GO	-.497	.112	-4.441	.000
JCS A	.244	.109	2.231	.0277
SHY_IP	Excluded			
SHY_BISS	Excluded			
SHY_SA	Excluded			
JCS O	Excluded			
JCS OS	Excluded			
JCS JS	Excluded			

The SHY- and JCS-dimensions explained 27% of the variance in perceived performance difficulties with regards to analyzing and interpreting. SHY_SAPF, JCS GO and JCS A reached significance as predictors in this regression model.

Table 4.47

Regression summary for PWD Creating and Conceptualizing as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .205; Adjusted R ² = .191; F(2,112)=14.462; p < .000; Std.Error of estimate= 4.243				
	beta	Std.Err. - of beta	t(112)	p-value
SHY_BISS	.323	.085	3.792	.000
JCS GO	-.277	.085	-3.254	.002
SHY_IP	Excluded			
SHY_SAPF	Excluded			
SHY_SA	Excluded			
JCS O	Excluded			
JCS OS	Excluded			
JCS JS	Excluded			
JCS A	Excluded			

The SHY- and JCS-dimensions explained 21% of the variance in perceived performance difficulties with regards to analyzing and interpreting. Only SHY_BISS and JCS GO reached significance as predictors in this regression model.

Table 4.48

Regression summary for PWD Organizing and Executing as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .242; Adjusted R ² = .215; F(4,110)=8.795; p < .000; Std.Error of estimate= 3.698				
	beta	Std.Err. - of beta	t(110)	p-value
SHY_BISS	.282	.092	3.067	.003
SHY_SA	.208	.091	2.276	.025
JCS GO	-.331	.112	-2.943	.004
JCS A	.254	.112	2.271	.025
SHY_IP	Excluded			
SHY_SAPF	Excluded			
JCS O	Excluded			
JCS OS	Excluded			
JCS JS	Excluded			

The SHY- and JCS-dimensions explained 24% of the variance in perceived performance difficulties with regards to organizing and executing. SHY_BISS, SHY_SA, JCS A and JCS GO reached significance as predictors in this regression model.

Table 4.49

Regression summary for PWD Adapting and Coping as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .2357; Adjusted R ² = .208; F(4,110)=8.469; p < .000; Std.Error of estimate= 2.702				
	beta	Std.Err. - of beta	t(110)	p-value
SHY_BISS	.252	.098	2.578	.011
SHY_SA	.281	.093	3.028	.003
JCS O	-.083	.084	-0.982	.328
JCS JS	.121	.090	1.362	.176
SHY_IP	Excluded			
SHY_SAPF	Excluded			
JCS GO	Excluded			
JCS OS	Excluded			
JCS A	Excluded			

The SHY- and JCS-dimensions explained 24% of the variance in perceived performance difficulties with regards to adapting and coping. SHY_BISS, SHY_SA and JCS O reached significance as predictors in this regression model.

Table 4.50

Regression summary for PWD Enterprising and Performing as dependent variable and the SHY-dimensions and JCS-dimensions as predictors.

R ² = .158; Adjusted R ² = .128; F(4,110)=5.171; p < .001; Std.Error of estimate= 2.865				
	beta	Std.Err. - of beta	t(110)	p-value
SHY_IP	.125	.112	1.110	.269
SHY_BISS	.226	.110	2.063	.041
JCS GO	-.248	.120	-2.069	.041
JCS A	.114	.118	.971	.334
SHY_SAPF	Excluded			
SHY_SA	Excluded			
JCS O	Excluded			
JCS OS	Excluded			
JCS JS	Excluded			

The SHY- and JCS-dimensions explained 24% of the variance in perceived performance difficulties with regards to enterprising and performing. Only SHY_BISS and JCS GO reached significance as predictors in this regression model.

4.9 THE MODERATOR EFFECT OF JOB CHARACTERISTICS

A moderated multiple regression analysis was conducted to explore whether the JCS dimensions might act as a moderators in the social anxiety, work limitations and perceived performance difficulties relationship. In this regression analysis the independent variable was considered to be one of the terms and then a interaction term (moderator*independent variable) was created in order to provide an estimate of the size and significance of the possible moderating effect.

Job characteristics consist of job demands and job resources. The correlation and multiple regression results were analysed to determine which of the job demands and job resources should be included in the moderated multiple regressions. Growth opportunities were found to be the job resource with the largest effect size. Job insecurity was found to be the job demand with the largest effect size. Therefore, only growth opportunities (resource) and job insecurity (demand) were included as moderators to test the interactional effect of job characteristics on the relationship between social anxiety symptoms as independent variable and work limitations and perceived performance difficulties as dependent variables. Significant interaction effects will be presented in Tables 4.51 – 4.55. The analyses that demonstrated non-significant interaction effects are listed in Appendix A.

The results indicate that the interaction effect of growth opportunities (GO) were significant ($p \leq 0.05$) for three interactional relationships. Table 4.51 illustrates the moderator effect of GO in the relationship between interpersonal social anxiety symptoms (SHY_IP) as independent variable and leading and deciding

difficulties as dependent variable. The estimate value is negative (-0.009), indicating that the moderator (GO) decreases the relationship between (SHY_IP) and leading and deciding difficulties. The job resource, growth opportunities therefore minimizes the positive relationship between social anxiety and leading and deciding difficulties.

Table 4.51

Moderated multiple regression analysis with SHY_IP as independent variable, JCS GO as moderator and PWD Leading and Deciding as dependent variable.

R= .523; Variance explained: 27.33			
	b0	b1	moderator
Estimate	3.598	.474	-.010
Std.Err.	.435	.096	.004
t(109)	8.278	4.911	-2.610
p-value	.000	.000	.010

Table 4.52 illustrates that the moderator effect of GO in the relationship between interpersonal social anxiety symptoms (independent variable) and analyzing and interpreting difficulties is significant ($p \leq 0.05$). The estimate value is negative (-0.024) indicating that the moderator decreases the positive relationship between interpersonal social anxiety symptoms and leading and deciding difficulties.

Table 4.52

Moderated multiple regression analysis with SHY_IP as independent variable, JCS GO as moderator and PWD Analyzing and Interpreting as dependent variable.

R= .454; Variance explained: 20.610%			
	b0	b1	moderator
Estimate	7.135	.789	-.024
Std.Err.	.679	.151	.006
t(109)	10.503	5.232	-4.163
p-value	.000	.000	.000

Table 4.53 illustrates that the moderator effect of GO in the relationship between interpersonal social anxiety symptoms (independent variable) and the total perceived performance difficulties is significant ($p \leq 0.05$). The estimate value is negative (-0.086) indicating that the moderator decreases the positive relationship between interpersonal social anxiety symptoms and the total perceived performance difficulties score.

Table 4.53

Moderated multiple regression analysis with SHY_IP as independent variable, JCS GO as moderator and PPD total as dependent variable.

R= .434; Variance explained: 18.849%			
	b0	b1	moderator
Estimate	44.362	3.612	-0.086
Std.Err.	3.839	.852	0.033
t(109)	11.556	4.238	-2.60
p-value	.00	.000	.010

Table 4.54 illustrates that the moderator effect of JS in the relationship between behavioural inhibition and somatic symptoms (independent variable) and leading and deciding difficulties (dependent variable) is significant ($p \leq 0.05$). The estimate value of the moderator is positive (.014) indicating that the moderator increases the positive relationship between behavioural inhibition and somatic symptoms and leading and deciding difficulties.

Table 4.54

Moderated multiple regression analysis with SHY_BISS as independent variable, JCS JS as moderator and PPD Leading and Deciding as dependent variable.

R= .466; Variance explained: 21.760%			
	b0	b1	moderator
Estimate	3.831	.186	.014
Std.Err.	.390	.072	.006
t(109)	9.834	2.594	2.420
p-value	.000	.011	.017

Table 4.55 illustrates that the moderator effect of JS in the relationship between behavioural inhibition and somatic symptoms (independent variable) and interacting and presenting difficulties (dependent variable) is significant ($p \leq .05$). The estimate value of the moderator is positive (.019) indicating that the moderator increases the positive relationship between behavioural inhibition and somatic symptoms and interacting and presenting difficulties.

Table 4.55

Moderated multiple regression analysis with SHY_BISS as independent variable, JCS JS as moderator and PPD Interacting and Presenting as dependent variable.

R= .438; Variance explained: 19.221%			
	b0	b1	moderator
Estimate	6.655	.251	.0188
Std.Err.	.572	.105	.008
t(109)	11.642	2.387	2.250
p-value	.000	.019	.026

4.10 RE-VISITING THE RESEARCH PROPOSITIONS

The following support was found for the research propositions. Each proposition is reported as well as the supporting findings.

Proposition One: Social Anxiety will affect perceived performance difficulties in a positive direction and give rise to work limitations. Positive correlations were found with the social anxiety dimensions and perceived performance difficulties. The strongest correlations with perceived performance difficulties were found with two of the social anxiety dimensions, namely behavioural inhibition and somatic symptoms, and specific anxieties and phobic features. The results also confirmed that high levels of social anxiety symptoms are associated with several areas of work limitations.

Proposition Two: There is a positive relationship between job demands and the social anxiety spectrum. Significant relationships were found between job insecurity and the social anxiety symptom dimensions. The results therefore support the research proposition.

Proposition Three: Exposure to high job demands will influence work limitations in a positive direction. Positive relationships were found between overload and time management limitations. Job insecurity demonstrated positive correlations with all of the work limitations domains. The results of the present research study therefore support the proposition.

Proposition Four: Exposure to high job demands will influence perceived performance difficulties in a positive direction. Support for this research proposition was also found in this research study. Results indicated that positive relationships were found between job insecurity and all of the PPDS dimensions (except for perceived difficulties regarding leading and deciding). This indicates that job insecurity has a negative effect on most performance areas.

Proposition Five: There is a negative relationship between job resources and the social anxiety spectrum. Moderate negative relationships did emerge between the job resources (growth opportunities, organizational support and

advancement) and the social anxiety spectrum. Support was therefore found for the research proposition.

Proposition Six: **There is a negative relationship between job resources and work limitations.** The, negative relationships found between job resources (growth opportunities, organizational support and advancement) and work limitations were not significant. However, organizational support did reach significance as predictor in the regression model with the SHY dimensions and Job Characteristics as predictors and the Mental-Interpersonal Work Limitation as dependent variable. There is consequently limited support for this proposition.

Proposition Seven: **There is a negative relationship between job resources and perceived performance difficulties.** Negative relationships did emerge between job resources (growth opportunities, organizational support and advancement) and the perceived performance difficulties dimensions. The job resource that was responsible for the largest and most significant relationships with the perceived performance difficulties was found to be growth opportunities.

Proposition Eight: **Job demands have a moderating effect on the relationship between social anxiety and work limitations.** No evidence emerged from the data that job insecurity, as demand, played a moderating role in the relationship between social anxiety and work limitations.

Proposition Nine: **Job demands have a moderating effect on the relationship between social anxiety and perceived performance difficulties.** Support for this proposition did emerge from the data. Job insecurity as a job demand was found to moderate the relationship between behavioural inhibition and somatic symptoms and two perceived performance difficulties, namely leading and deciding and interacting and presenting.

Proposition Ten: Job resources have a moderating effect on the relationship between social anxiety and work limitations. No evidence emerged from the data that growth opportunities, as resource, played a moderating role in the relationship between social anxiety and work limitations. Support for the research proposition was therefore not found.

Proposition Eleven: Job resources have a moderating effect on the relationship between social anxiety and perceived performance difficulties. Growth opportunities as a resource was found to moderate the relationship between interpersonal social anxiety symptoms and three perceived performance difficulties, namely leading and deciding, analyzing and interpreting and the total score for perceived performance difficulties. These findings therefore support the above-mentioned research proposition.

4.11 SUMMARY

The research results of the present study were reported in this chapter. Results obtained through the various data analyses were presented and the differences between various groups were explored and highlighted. The following chapter will focus on a discussion of the reported results with reference to relevant literature. Limitations of this study will be addressed, followed by recommendations to organizations regarding the management of employees burdened by social anxiety.

CHAPTER 5

DISCUSSION

5.1 INTRODUCTION

To date, the prevalence and characteristics of social anxiety spectrum symptoms and social anxiety disorder and their impact on presenteeism in the workplace (problems with productivity when attending work while sick), have not been carefully examined. Managers are expected to perform certain roles, while some of the roles may be difficult for a manager with social anxiety symptoms. The social anxiety symptoms may cause work limitations and perceived performance difficulties. Further, managers are faced with many job demands that may moderate the relationship between social anxiety symptoms and perceived performance difficulties and work limitations. Job resources on the other hand may act as a buffer against the negative effects of social anxiety symptoms and may decrease work limitations and perceived performance difficulties. The aim of this study was to investigate the nature of the relationship between social anxiety (and its spectrum) and work limitations and perceived performance difficulties, and how it is moderated by job demands and job resources.

This chapter will provide an holistic and integrated discussion of the results obtained in this research. Reference to relevant literature and previous research findings will also be presented.

5.2 DESCRIPTIVE STATISTICS

While the majority of the participants reported low social anxiety symptoms (86%), 11% reported high social anxiety and fell within the cut off score for social anxiety disorder on the SHY of a total score of ≥ 67 (Dell'Osso et al., 2003). This is a higher rate than that found in the South African Stress and Health (SASH) study that was the first large population-based mental health epidemiological survey in South Africa, which reported a 15.8% prevalence of anxiety disorders, but the rate for social anxiety was only 2.8% across all ages. The National Institute of Mental Health Epidemiological Catchment Area study conducted in a

community sample in the United States of America used the DSM-III criteria and found a much lower prevalence for social anxiety disorder ranging from 1.8% to 3.2%. A cross-national epidemiological study, also using the DSM-III showed lifetime prevalence rates of 2% to 4% (Lepine & Pelissolo). However, a community study in Switzerland used the DSM-III-R and reported a lifetime prevalence rate of 16% (Wacker, Mullijans, Klein & Battegay, 1992). The variable prevalence of social anxiety may be due to the different measurement instruments used by each study. The SHY-SR that was used for the present study, measures social anxiety on a continuum (i.e. social anxiety spectrum) - from the absence of social fear, through ordinary shyness and mild social anxiety, to more intense and functionally impairing social fears, including generalized social anxiety disorder. Another possible explanation for the higher prevalence of social anxiety disorder found in the present study is that the participants were selected from managerial level positions so that the sample was not representative of the general population. It may be that social anxiety disorder is more prevalent in this particular socio-economic group. It is of course also possible that volunteering for this specific study was facilitated by the social anxiety status of the respondents and that individuals with social anxiety symptoms volunteered to participate in the study due to the desire to learn more about the condition.

5.3 THE PSYCHOMETRIC PROPERTIES OF THE MEASUREMENT INSTRUMENTS

The psychometric properties of the measurement instruments were investigated by means of Cronbach alpha's and average inter-item correlations. Guttman-split half reliabilities were calculated and the sub-scale inter-correlations were investigated.

5.3.1 The Social Anxiety Scale

The Cronbach alpha for the total scale was found to be .587. It was calculated by means of dimension scores as the items. The Cronbach alpha for each

individual dimension were all between .766 and .987. The substance abuse dimension's item-total correlation was found to be only .372. The intercorrelations between the SHY-dimensions indicate that the substance abuse dimension's correlations with the other dimensions are between .30 and .42. The average inter-item correlations of the other dimensions were all moderate to high and indicated that the items correlated with each other. This clearly illustrates that it is not good practice to use the SHY total score, but that the SHY dimension scores should rather be calculated and used as separate scores. The Guttman-split half correlation was calculated for each scale and the reliabilities were all .897 and above, indicating that the scale is reliable.

The intercorrelations between the SHY-SR dimensions were also calculated. All of the correlations were significant with a moderate to large effect size. These results all indicate that the psychometric properties of the SHY-SR are satisfactory. However, the results indicate that the SHY-SR should be interpreted on dimension level, rather than the total score of the instrument.

5.3.2 The Job Characteristics Scale

Highly acceptable alpha coefficients ranging from .788 to .912 were obtained for the JCS dimensions. Therefore, the scale dimensions show acceptable internal consistency. This is consistent with the findings of Rothmann et al. (2006) who found dimension internal consistency ranging from .76 to .92. Organisational support is significantly related to growth opportunities (large effect size), and advancement (medium effect size). The results also indicate that growth opportunities are strongly related to advancement (large effect size).

Consequently, an exploratory factor analysis was carried out on the inter-correlations between the five dimensions. Two factors were extracted with eigenvalues of 2.11 and 1.12. These two factors explained 42.25% and 22.33% respectively of the total variance. The first factor was labelled job demands and included overload (loading = .82) and job insecurity (loading = .66). The second

factor was labelled job resources and included growth opportunities (loading = .93), organisational support (loading = .73) and advancement (loading = .81).

These findings are consistent with a study by Rothman and Joubert (2007), who conducted a principle component analysis on the items of the JCS and extracted five factors. They also conducted a second order factor analysis in which two factors were also extracted, namely job demands and job resources with Eigen values of 2.08 and 1.03 respectively, which explained 62.20% of the total variance.

5.3.3 The Work Limitations Scale

Highly acceptable alpha coefficients ranging from .878 to .963 were obtained for the work limitations dimensions. The alpha coefficient for the total scale was .618. Therefore, the work limitations dimensions show acceptable internal consistency, but not the total scale score. These findings are consistent with the findings of Lerner et al. (2001) who found the item-to-total scale correlation coefficients were greater than .40 and the internal consistency reliability of the dimensions were also found to be high (α ranging from .93 – .96).

Table 4.19 indicates that time management is significantly related to the mental-interpersonal dimension (large effect size) and to the output dimension (large effect size). The mental-interpersonal dimension is significantly related to the output dimension (large effect). The table also indicates that the physical dimension does not correlate with the other dimensions. The WLQ should therefore rather be interpreted based on dimension scores, than the total score.

5.3.4 The Perceived Performance Difficulties Scale

Highly acceptable alpha coefficients were found for the perceived performance difficulties subscales ranging from .806 to .883. The alpha coefficient for the total scale is .940. Therefore, the scale shows acceptable internal consistency

reliability. All of the dimensions were practically significantly related to each other, all with a medium to large effect.

The perceived difficulty with which respondents experienced the most difficulties with was found to be enterprising and performing. The second most difficult task was interacting and presenting. Supporting and cooperating was found to be the least difficult task among respondents.

5.4 IMPACT OF SOCIO-DEMOGRAPHIC VARIABLES ON SOCIAL ANXIETY

A series of one-way between group analyses (ANOVA) were conducted to explore the difference between gender, educational level and marital status in terms of reported mean scores on the dimensions of the SHY-SR dimensions.

Many studies have found the prevalence rate of social anxiety to be higher among females (eg. Rumble et al., 1996; Stein & Stein, 2008; Herman et al., 2009). In the present study, females reported higher social anxiety symptoms on two of the SHY-SR dimensions (interpersonal, specific anxieties and phobic features) than the male participants. The largest difference was found to be on the specific anxieties and phobic features. This is an interesting consideration to keep in mind when risk groups for social anxiety are identified, because women may be at greater risk for higher social anxiety symptoms.

The differences between social anxiety mean scores on each dimension were also explored for different educational levels (matric, diploma/degree and post graduate). No significant relationships were found between these groups. It would appear that in this study educational level does not act as a resource buffering the anxiety-inducing effects of life stressors.

As the study by Plaisier et al. (2007) also demonstrated, significant differences between married and single respondents were found with respect to reported

social anxiety symptoms on two of the social anxiety domains, namely on the interpersonal domain, and on the specific anxieties and phobic features domain. Plaisier et al. (2007) found that social support from one's partner protected one against the incidence of high social anxiety symptoms. Alternatively, it may be argued that high social anxiety symptoms may prevent individuals from meeting a partner, because of great distress that are usually experienced by socially anxious individuals when meeting new people, especially from the opposite sex (Stein & Stein, 2008).

5.5 RELATIONSHIPS BETWEEN SOCIAL ANXIETY SYMPTOMS, WORK LIMITATIONS, PERCEIVED WORK DIFFICULTIES AND JOB DEMANDS AND RESOURCES.

The relationships between the dimensions of social anxiety, work limitations, job characteristics and perceived performance difficulties were investigated by means of correlations as well as multiple regression analyses. The results of the various relationships are discussed below.

5.5.1 Social Anxiety and Work Limitations

The results suggest that high levels of social anxiety symptoms are associated with several areas of work limitations. The data analysis revealed ten statistically significant relationships between social anxiety symptoms and work limitations. These findings corroborate the results of other authors reporting a link between social anxiety and work limitations (e.g. Clark, 2003; Lerner et al., 2001; Stein & Stein, 2008; Vassilopoulos, 2008).

An interesting finding is that behavioural inhibition and somatic symptoms showed the strongest association with work output limitations. The output limitations are measured by five items that assess decrements in the ability to meet demands for quality, quantity, and timeliness of completed work (Lerner et al., 2001). A possible explanation for this finding is that behavioural inhibition is associated with poor concentration. Previous literature has found that people with

moderate to high social anxiety symptoms may lack concentration and this may therefore result in work limitations (Haslam et al., 2005). Another possible explanation is that people with high social anxiety symptoms generally avoid anxiety provoking situations (Linden & Muschalle, 2007). This may interfere with aspects of work output such as time management.

All of the social anxiety dimensions were positively related to work limitations (time management, mental-interpersonal and output). However, an interesting finding is that all of the social anxiety dimensions showed negative relationships with work limitations related to physical tasks (although, with the exception of specific anxieties and phobic features, all of these correlations have small effect sizes). It may be speculated that people with social anxiety symptoms may compensate for the other work limitations and focus more on non-anxiety provoking tasks, such as physical tasks. Further research should investigate this hypothesis.

As expected, the interpersonal dimension of social anxiety correlated moderately with mental-interpersonal limitations. This confirmed the finding of Stein and Chavira (1998) who reported that interaction with people is either avoided or endured with great distress by social anxiety sufferers and that the main feature of social anxiety is a fear of negative evaluation by others. Moderate relationships were also found between interpersonal symptoms and work limitations with regards to time management, as well as output limitations. This is consistent with the findings of Voci et al. (2001), who found that distress and avoidance of social situations contribute to the impairment in social functioning and all areas of work and social life of sufferers.

The strong relationships between substance abuse and work limitations reported in other studies (e.g. Bruch & Fallon 2003; Merikangas et al., 2002) did not emerge from the current data. This may be due to respondents engaging in social desirability responses. Another possibility is that, despite the assurances

of confidentiality, participants might not have felt comfortable about divulging such sensitive information. However as reported by these authors, a moderate correlation was found between substance abuse and mental-interpersonal limitations. A weak relationship was also found between substance abuse and time management. Mental-interpersonal limitations refer to difficulty performing cognitive job tasks, as well as limitations regarding interaction with people in the workplace. Bruch and Fallon (2003) found that substance abuse affects performance and that the first signs include a lack of attention and an increased number of missed deadlines. This lack of attention may therefore cause difficulties with mental-interpersonal tasks. An alternative explanation for these findings is that substance use may be a consequence rather than a cause of work limitations. It may be that people use substances to feel more at ease in social situations, as was found by Lepine and Pelissomo (2000). The above findings corroborate results reported by other authors (e.g. Acarturk et al., 2009; Dewa & Lin, 2000; Haslam et al., 2005; Lerner, D. 2009; 2009;) that an increase in social anxiety symptoms is associated with work limitations.

Regression analyses were performed to determine whether any, or a combination of the dimensions of social anxiety predicted variance in the four dimensions of work limitations (time management, physical, mental-interpersonal, output). The results support the predictive value of social anxiety in the development of work limitations. Behavioural inhibition and somatic symptoms emerged as a unique predictor of work limitations, and was found to predict 33% of the variance in the time management domain of work limitations. The sign of the beta coefficient for behavioural inhibition as predictor in the multiple regression, with physical work limitations as dependent variable, is negative, which underlies the comments about compensating for other work limitations by focusing on physical tasks. The domain of specific anxieties and phobic features was found to be a unique predictor for both mental-interpersonal limitations and output limitations. Substance abuse was also found to predict a

small amount of variance in work output limitations and hence confirms the findings of Lerner et al. (2001) and Clark (2003).

5.5.2 Social Anxiety and Perceived Performance Difficulties

As anticipated, positive correlations were found between the social anxiety dimensions and perceived performance difficulties. The strongest correlations with perceived performance difficulties were found between two of the social anxiety dimensions, namely behavioural inhibition and somatic symptoms, and specific anxieties and phobic features. An interesting finding is that no significant correlations emerged between substance abuse and perceived performance difficulties. This is in contrast to the findings of other authors (e.g. Haslam et al., 2005; Lerner, D. 2009; Acarturk et al., 2009; Dewa & Lin, 2000). As mentioned above, this may either be due to social desirability, or that participants might not have felt comfortable about divulging such sensitive information.

The two perceived performance difficulties of leading and deciding and interacting and presenting are the two areas that would be expected to be most difficult for people with social anxiety symptoms, because they involve interaction with people as well as performing in front of people. These have been found by Linden and Muschalle, (2007) to be the most feared situations by people with social anxiety symptoms. The positive correlations between social anxiety symptoms and perceived work limitations found in this study confirm these findings.

No significant relationship was found between interpersonal social anxiety symptoms and supporting and cooperating limitations. This may be because people with interpersonal social anxiety symptoms are still able to cooperate, as this does not require them to take a leadership role and does not place them at the center of attention.

Weak correlations were found between interpersonal social anxiety symptoms and the following work limitations: analyzing and interpreting; creating and conceptualizing; organising and executing; adapting and coping; enterprising and performing. As mentioned above, these performance areas do not require much interaction with people and are therefore not likely to cause much distress for people with interpersonal social anxiety symptoms. But these individuals still need to be in a work environment surrounded by other people, and may experience symptoms such as a lack of concentration due to the social anxiety disorder. Haslam et al. (2005) found that individuals experiencing anxiety disorders are likely to experience symptoms such as fatigue, and poor concentration that impair performance. All of these symptoms may therefore additionally cause work limitations.

Regression analyses revealed that the presence of social anxiety symptoms lead to limitations on performance, including tasks not directly involving social interaction. However, the most pronounced limitations were found to be those tasks involving performing in front of people and tasks that include leadership roles.

Interpersonal symptoms, and behavioural inhibition and somatic symptoms accounted for most of the variance (25%) in work limitations with regards to leading and deciding, with interpersonal symptoms making the largest contribution to the variance. This is to be expected, as interpersonal symptoms may prevent individuals from forming personal relationships with people, and may also prevent individuals from leading others. As expected, interpersonal symptoms also accounted for most of the variance (21%) in work limitations with regards to interacting and presenting. This supports the finding that presenting in front of people is one of the situations most feared by people with social anxiety (Stein & Stein, 2008).

A notable finding is that social anxiety symptoms also accounted for considerable variance in work limitations with regards to adapting and coping. Behavioural inhibition and somatic symptoms, as well as substance abuse accounted for 20% of the variance in the work limitations. Behavioural inhibition and somatic symptoms, as well as substance abuse, were also positively correlated with work limitations with regard to organizing and executing, and accounted for 16% of the variance in organizing and executing limitations. These findings support previous studies (eg. Acarturk et al., 2009; Haslam et al., 2005; Lerner, D. 2009) that found that social anxiety symptoms effect all areas of work performance.

A regression analysis of the relationship between the total work limitations score and social anxiety symptoms indicated that behavioural inhibition and somatic symptoms accounted for most of the variance in work limitations in total. Behavioural inhibition and somatic symptoms refers to changes in usual behaviours and physical symptoms related to social anxiety (Dell'Osso et al. 2003). This is consistent with the findings of Haslam et al. (2005), that the physical symptoms of social anxiety were reported to impair work performance.

5.5.3 Job Characteristics and Social Anxiety

The data analysis revealed four statistically significant relationships between the social anxiety dimensions and job characteristics (overload, growth opportunities, organisational support and job security). Job characteristics can be classified into two higher order factors, namely job demands and job resources. Job demands include overload and job security, and job resources include growth opportunities, organisational support and advancement.

Statistically significant relationships were found between job insecurity and the social anxiety symptom dimensions, namely behavioural inhibition and somatic symptoms and specific anxieties and phobic features. This confirms the findings of Rothmann et al. (2006) that an increase in demands may lead to strain that is associated with certain psychological or physical costs.

The strong negative relationships previously reported between growth opportunities as a resource and anxiety (e.g. Bakker & Demerouti, 2006; Rothmann et al., 2006) did not emerge from the data. However moderate negative relationships did emerge between organizational support and two of the social anxiety symptom dimensions, namely interpersonal symptoms and specific anxieties and phobic features. This is in keeping with the results of a study by Quilty (2003), who found that socially anxious individuals were found to have low social and organizational support compared to healthy individuals. One could, however, also hypothesize that high social and organisational support leads to lower levels of social anxiety.

5.5.4 Job Characteristics and Perceived Performance Difficulties

In contrast to other authors (e.g. Rothmann et al., 2006, Xanthopoulou et al., 2007) no significant relationships were found between the overload domain of the JCS and the perceived performance difficulties dimensions. Also, no significant relationships were found between the advancement domain and the perceived performance difficulties dimensions. This could be explained on the basis of a finding by Rothmann et al. (2006) that certain job demands such as the amount of work, may lead to work engagement rather than strain when organisational support is high.

Significant negative relationships were found between growth opportunities (resource) and the following PPDS dimensions: leading and deciding, interacting and presenting, analyzing and interpreting, creating and conceptualizing, and organizing and executing. This is consistent with the findings of Sanne et al. (2005) that growth opportunities motivate employees and are therefore likely to lead to enhanced performance.

As expected, the results indicated that negative relationships exist between organizational support and the following PPDS domains: leading and deciding, analyzing and interpreting, creating and conceptualizing, and organizing and

executing. This indicates that the more organizational support the participants experienced, the fewer perceived performance difficulties they reported. Bakker et al. (2006) found that organizational support acts as a potential buffer against job strain. They found that leader appreciation and support lead to an improvement in coping mechanisms that facilitate performance. They also found that organizational support is instrumental in achieving work goals.

The finding that significant positive relationships exist between job insecurity and all of the PPDS dimensions (except for leading and deciding perceived difficulties) illustrates that job insecurity has a negative effect on most performance areas. This is consistent with the finding of De Witte (2005a), that job insecurity has negative organizational consequences. According to this author, the four main consequences of job insecurity are: a decrease in organizational commitment, organizational loyalty and organizational trust, and an increase in turnover intention. It is therefore also not surprising to find that job insecurity may lead to an increase in perceived performance difficulties.

5.5.5 Job Characteristics and Work Limitations

An unexpected finding of the present study is that no significant relationships were found between growth opportunities and the WLQ domains. Also, no significant relationships were found between organisational support and the WLQ domains. These findings are inconsistent with previous studies (e.g. Bakker et al. 2006, Rothmann et al. 2006) and difficult to explain. It would appear that job resources do not predict variation in work limitation scores. This finding should be investigated further in future research.

A significant relationship was found between overload and time management limitations. This indicates that overload as a demand leads to time management limitations. A significant positive relationship was also found between overload and output limitations. This suggests that when employees are faced with too many tasks at one point in time, they will experience limitations in terms of

quantity, quality and deadlines. This is consistent with the findings of Bakker et al. (2006) and Rothmann et al. (2006).

Job insecurity (demand) displayed moderate correlations with all of the work limitation domains. An interesting finding here is that a negative correlation was found between job insecurity and physical limitations. This may be explained on the basis of the work environment of the participants, that is, the nature of their work does not require any physical tasks. Alternatively, when job insecurity is high, employees may compensate and increase their physical outputs, thereby decreasing their physical limitations. Further research is needed to establish the relationship between those two variables.

Positive relationships were found between job insecurity and time management limitations, mental-interpersonal limitations and output limitations. Therefore, the more job insecurity the respondents reported, the more work limitations they experienced. This is consistent with the findings of Bakker, Van Emmerik and Van Riet (2008) who reported that when employees are faced with job demands, such as job insecurity, they use a performance protection strategy. In order to maintain the required performance level, they mobilize additional energy to compensate for fatigue through mental effort. According to this hypothesis, when employees become exhausted under the influence of environmental demands, their performance decreases, because their energy resources are diminished. This may explain the findings of the present study that job insecurity leads to work limitations.

5.5.6 Work Limitations, Social Anxiety and Job Characteristics

The results of the multiple regression analysis, with WLQ Time Management as dependent variable and the SHY-dimensions and the JCS-dimensions as predictors, indicated that behavioural inhibition and somatic symptoms, substance abuse, overload, organisational support and job insecurity accounted for 38% of the variance in time management limitations. Behavioural inhibition

and somatic symptoms accounted for most of the variance. It can therefore be concluded that participants with withdrawal symptoms and social anxiety symptoms, affecting their behaviour, experienced the most time management limitations.

The results of the multiple regression analysis, with WLQ Physical as dependent variable and the SHY-dimensions and the JCS-dimensions as predictors, indicated that specific anxieties and phobic features, overload and job insecurity accounted for 8% of the variance in physical limitations. Social anxiety symptoms and job characteristics therefore do not account for a high degree of physical limitations.

The results of the multiple regression analysis, with WLQ mental-Interpersonal as dependent variable and the SHY-dimensions and the JCS-dimensions as predictors indicated that specific anxieties and phobic features, substance abuse and organisational support accounted for 35% of the variance in mental-interpersonal limitations. These results support the findings of Stein and Stein (2008) and Herman et al. (2009), that social anxiety symptoms cause concentration, cognition and interpersonal limitations.

The results of the multiple regression analysis, with WLQ Output as dependent variable, and the SHY-dimensions and the JCS-dimensions as predictors, indicated that specific anxieties and phobic features, substance abuse and organisational support and overload accounted for 38% of the variance in output limitations. These results support the findings of Stein and Stein (2008) and Herman et al. (2009), that social anxiety symptoms may lead to a decrease in work output. These results also support the findings of Bakker et al. (2008) that overload as job demand decreases performance with regard to output.

5.5.7 Perceived performance difficulties, Social anxiety and Job Characteristics

The results of the multiple regression analysis of the relationship between perceived performance difficulties, with regard to leading and deciding as dependent variable and the SHY-dimensions and JCS dimensions as predictors, indicated that interpersonal symptoms, behavioural inhibition and somatic symptoms and growth opportunities accounted for 30% of the variance in perceived performance difficulties with regards to leading and deciding. Leading a group or a team requires interpersonal actions and people with social anxiety symptoms that are related to interpersonal aspects and behavioural inhibition will therefore experience difficulties with tasks related to leading others. This supports the findings of Plaisier et al. (2007) and Stein and Stein (2008). It should also be noted that the sign for the beta coefficient for growth opportunities was negative, which means that a higher level of growth opportunities is associated with a lower level of perceived performance difficulties.

A great number of studies have found that interacting and presenting are two of the most feared situations by social anxiety sufferers (Linden & Muschalle, 2007; Plaisier et al., 2007; Stein & Stein, 2008). The results of the multiple regression analysis of the relationship between perceived performance difficulties, with regard to interacting and presenting as dependent variable, and the SHY-dimensions and JCS-dimensions as predictors, indicated that interpersonal symptoms, behavioural inhibition and somatic symptoms, and overload accounted for 26% of the variance in perceived performance difficulties with regard to interacting and presenting. This supports the findings of the above-mentioned authors. The negative sign for overload as predictor means that in this regression model overload was associated with less perceived difficulties, with regard to interacting and presenting. Perhaps because overload acts as an attention distraction away from the stress associated with interacting and presenting. Overload therefore does not allow the socially anxious individuals to dwell on the anxiety producing nature of interacting and presenting tasks.

The results of the multiple regression analysis of the relationship between perceived performance difficulties, with regard to analyzing and interpreting as dependent variable and the SHY-dimensions and JCS-dimensions as predictors, indicated that specific anxieties and phobic features, growth opportunities and advancement accounted for 27% of the variance in perceived performance difficulties with regard to analyzing and interpreting. It may be that the social anxiety symptoms cause a lack of concentration, as Stein and Stein (2008) has found. It also indicates that job characteristics influence a person's performance difficulties with regards to analysing and interpreting. The negative sign of the beta coefficient for growth opportunities as predictor indicates that in this regression model a higher level of growth opportunities was associated with a lower level of perceived performance difficulties associated with analysing and interpreting. Strangely enough advancement did not have a negative sign. This should perhaps be investigated in further research. Advancement therefore increases the performance difficulties associated with analysing and interpreting.

The results of the multiple regression analysis of the relationship between perceived performance difficulties with regard to adapting and coping as dependent variable and the SHY-dimensions and JCS-dimensions as predictors, indicated that behavioural inhibition and somatic symptoms, as well as substance abuse accounted for 24% of the variance in perceived performance difficulties with regards to adapting and coping. The results of the present study therefore indicate that participants with behavioural inhibition and somatic symptoms, as well as substance abuse, found it more difficult to cope and adapt to their work environment than other respondents.

5.6 THE MODERATING EFFECT OF JOB CHARACTERISTICS IN THE RELATIONSHIP BETWEEN SOCIAL ANXIETY AND WORK LIMITATIONS AND PERCEIVED PERFORMANCE DIFFICULTIES

No evidence emerged from the data that growth opportunities played a moderating role in the relationship between social anxiety and work limitations.

Further research is needed to understand the unique relationships of social anxiety symptoms, growth opportunities and work limitations.

Growth opportunities as a resource was found to moderate the relationship between interpersonal social anxiety symptoms and three perceived performance difficulties, namely leading and deciding, analyzing and interpreting and the total score of perceived performance difficulties. Growth opportunities decrease the negative effect of interpersonal social anxiety symptoms on perceived performance difficulties. This supports the findings of De Jonge, Le Blanc, Peeters and Noordam (2008) that job resources may increase the coping abilities of individuals and may reduce stress-reactions and thereby increase well-being. Job insecurity as a job demand was found to moderate only two relationships. The relationships were between behavioural inhibition and somatic symptoms and two perceived performance difficulties, namely leading and deciding and interacting and presenting. It was found that job insecurity increased the positive relationship between social anxiety symptoms and the perceived performance difficulties. This finding is in accordance with the research of Sanne et al. (2005), which demonstrated that job demands lead to psychological strain. Job insecurity may therefore cause extra strain which increases the relationship between social anxiety symptoms and perceived performance difficulties.

No evidence emerged from the data that job insecurity played a moderating role in the relationship between social anxiety and work limitations. Further research is needed to understand the unique relationships of social anxiety symptoms, growth opportunities and work limitations.

5.7 LIMITATIONS OF THIS STUDY

There are several limitations to the present investigation. First, all four of the measurement instruments used in the present study, namely the SHY-SR, JCS, WLQ, PPDS are self-report instruments. Self-report instruments run the risk of being influenced by social desirability. Social desirability refers to the tendency

among respondents to attempt to create a more favourable impression of themselves when completing such questionnaires. The reported levels of the constructs investigated may therefore not be a true reflection of the actual status of the respondents and may influence the results. However, the scales all demonstrated good psychometric properties. It also needs to be kept in mind that the present study investigated the perceptions of the participants, rather than their actual performance (Zammuner & Galli, 2005).

The second limitation of the study is that of confounding variables. Only three types of demands were measured, namely emotional load, quantitative load and pace and amount of work. Other demands such as the family-work interface were not investigated and should be included in future research. The effects of other demands outside of the organization may “spill over” into the work life and impact upon the results of this study.

The third limitation is that of the research design. An ex post facto design was followed and independent variables could therefore not be manipulated. Consequently, there was a lack of power to randomize (Kerlinger, 1973). Regardless of these two limitations, ex post facto designs are commonly used because of the large numbers of variables related to society that cannot be manipulated. The limitations should therefore be taken into consideration and, whenever possible, both significant and non-significant relationships should be reported. The results and interpretations of data obtained through this kind of design should however be treated with caution.

The fourth limitation refers to the sample size. The sample size was 118 and caution should therefore be taken not to generalize these results to the general population. Also, only employees who volunteered to participate completed the survey. It may be argued that employees with greater social anxiety symptoms would be more reluctant to volunteer participation. Furthermore, it needs to be kept in mind that 47% of participants failed to respond (although a response rate

of 53% can be regarded as satisfactory). The participants may therefore not be a true reflection of the general population. In contrast, it might also be argued that people with social anxiety symptoms were more willing to participate, due to their interest on the topic. This may explain the high prevalence of social anxiety (11%) found in the present study.

The fifth limitation of the study is that the survey questionnaire was lengthy. Participants found it tiring and time consuming to complete. Participants may therefore have answered some responses without spending enough time to consider each answer carefully.

The sixth limitation of the present study is that even though it was explained to participants that the completed surveys would be handled with confidentiality and honesty was encouraged, participants might not have felt comfortable about divulging such sensitive information to the researcher.

The last limitation is that there are other important factors not measured in this study that are likely to impact upon perceived performance difficulties. Specifically, social anxiety is a highly co-morbid condition (Bruch & Fallon 2003; Merikangas et al., 2002) and other disorders such as depression, that were not measured in the present study, may also have had an impact on the responses provided by participants.

5.8 RECOMMENDATIONS

Variables that need to be considered:

The social anxiety symptoms reported in the present study were unexpectedly high (11%), stressing the need for greater recognition and management of social anxiety within organizations. If not recognized by employers and employees, social anxiety symptoms may be left untreated within organizations. As the present results indicated, this will lead to work limitations, as well as performance difficulties among employees. Interventions should therefore be implemented

that are aimed at the prevention and management of social anxiety symptoms within organisations that may lead to decreased work limitations and performance difficulties among such employees.

The present study found that social anxiety symptoms not only increase work limitations and perceived performance difficulties on tasks involving interaction with people, but among all areas of work as well. These areas include output (quality and quantity of work), time management and mental-interpersonal (cognitive tasks and interaction with people) limitations. Furthermore, difficulties with regard to leading and deciding, as well as interacting and presenting were also found in the study. The results confirm previous findings of Haslam et al. (2005) that social anxiety symptoms affect all areas of work and not only tasks involving social interaction. This may be due to impaired concentration, as well as time management problems that have been reported among socially anxious individuals (Haslam et al., 2005). Individual level interventions should therefore not only include stress management training, but should also focus on other skills such as improving concentration skills, coping skills and time management skills.

The present study also confirmed the findings of Jackson and Rothman (2005) that high job demands will have a negative effect on an individual's well-being and will lead to a decrease in performance.

Who should be targeted:

Everybody should be targeted and included in the planned interventions. There are three important reasons for this. Firstly, a high percentage of participants displayed high social anxiety symptoms (11%). Secondly, an even higher number of participants had milder degrees of social anxiety. Previous research indicated that the burden of social anxiety and the reduction of work productivity in sub-threshold social anxiety resemble that of the full blown disorder (Acarturk et al., 2009). These employees with milder symptoms are therefore also likely to

benefit from the interventions. There is also the possibility that moderate levels of social anxiety could escalate into higher levels of anxiety if left untreated.

Thirdly, it is important to include individuals without social anxiety symptoms. In this way awareness of the phenomenon will be raised, thereby enabling individuals to recognise symptoms in others. This will also create sensitivity among employers and employees to those situations that may provoke anxiety and dysfunction in others. Even individuals with no social anxiety symptoms would benefit from interventions such as stress management workshops and social skills training. Anxiety is a normal component of behaviour and the effective management thereof can optimize performance in all individuals.

It will, however, not be cost effective for organizations to include all of the employees in all of the workshops and training courses addressing social anxiety. The types of interventions and the amount of people attending the interventions will therefore vary per organization. Each organization should determine who they will include and what the most cost effective solution will be for them. Certain interventions such as the awareness of social anxiety symptoms may, for instance, include all of the employees. This can be done through the distribution of information booklets, the sharing of information during team meetings and by other cost effective means. Different strategies may therefore be implemented. Employees may be referred, high risk groups may be targeted or it may be incorporated in existing training courses.

Interventions:

Interventions should be designed to reduce the above-mentioned negative stressors and symptoms to ultimately improve organizational performance. The focus of interventions may either be (1) aiming to increase the psychological resources of the individual (e.g., coping skills) or (2) aiming to change the organizational characteristics that it is less anxiety or stress inducing (van der Klink, Blonk, Schene & van Dijk, 2001). Interventions may further be divided into

the specific targeted level, namely individual, small groups and organisational. A well-designed intervention programme addresses all three levels (van der Klink, et al., 2001). According to Baruch and Lambert (2006), two main strategies exist for addressing social anxiety symptoms which are:

- Preventative strategies to identify symptoms at an early stage and preventing problems.
- Treatment strategies for when either prevention was not in place, or has not been successful.

According to this study's findings, various preventative strategies for social anxiety may be utilized. On the individual level, education is of great importance. Employees should be educated about the risks, symptoms and consequences of social anxiety. This will enable employees to identify the symptoms at an early stage. Skills training workshops may be presented to employees, including:

- Concentration skills
- Stress management skills
- Time management skills
- Leadership skills
- Decision-making skills
- Interacting and presenting skills
- Adapting and coping skills
- Organising skills
- Social skills
- Assertiveness training

This could be presented by the training department of the organization, or it may be outsourced and provided by an outside organization. Mental-wellness programmes may also be provided to employees.

Once individuals with high social anxiety symptoms are identified, treatment interventions may be designed. These treatment strategies may either be

provided internally (employee assistance programs), or such individuals may be identified and referred to external professionals such as counselors or psychologists. The various treatment strategies such as counseling, cognitive behavioural therapy, psychotherapy and pharmacotherapy were discussed in chapter two.

At the organisational level, an organisation-wide approach should be adopted to promote the well-being and mental health of employees. This approach should be integrated into the organisation's policies and procedures. The culture of participation should also be promoted by top management. An awareness and understanding of mental health should be promoted to reduce potential stigma related to mental health problems.

According to the present study's results, the two most important prevention and treatment strategies on the organizational level will include interventions aimed at increasing resources and decreasing demands. The job demand that had the greatest effect on social anxiety and work limitations and performance difficulties was job insecurity. Organizational support was found to be the job resource with the largest effect on social anxiety and work limitations and performance difficulties.

Core components of organizational support in the workplace are co-worker support and supervisory support. Line managers should therefore be educated to support their followers. A management style should be promoted that encourages delegation, participation and constructive feedback. Managers must be able to identify mental health problems and they must be educated to respond with sensitivity to employees' anxieties and emotional concerns. Managers should also be educated to understand when it is necessary to refer an employee to other sources of help. Other methods include positive feedback, employee development, open communication, strong levels of support and employee growth. Managers should also receive training in communication skills, as well

as conflict resolution skills. Organizational support should be promoted on all levels of the organization.

The second organizational intervention of importance is to increase job security. Regular performance appraisals and feedback may decrease a sense of job insecurity, thereby improving self-confidence and work performance. Open communication and information sharing may also promote job security. Succession planning is also of great importance.

Each organization will need to develop interventions based on their unique organizational environment and culture. But all organizations should include strategies that create an awareness of social anxiety amongst their personnel. They also need to be aware of the effects of organizational support and job security and should therefore implement programs aimed at decreasing job demands and increasing job resources.

Overall, the organization should create a culture of anxiety recognition, identifying social anxiety symptoms and managing it appropriately. Managers must be trained to recognize social anxiety symptoms during annual performance appraisals. When social anxiety symptoms are identified in an employee, recommendations must be made by the line manager. The employee may be referred to the organisation's employee assistance programme, and in more severe cases, may be referred to a psychologist or psychiatrist outside of the organization. Organizations can also create support groups for employees with social anxiety symptoms, managed by the organisation's human resource department. This will increase the sense of well-being of their employees which will in turn lead to optimal performance, not only of individuals, but of the organization as a whole.

5.9 CONCLUSION

It needs to be emphasized that social anxiety is a disorder that is unrecognized by many organizations. Both social anxiety disorder and sub-threshold social anxiety symptoms hold various negative consequences for individuals, which may lead to work limitations and perceived performance difficulties. This may ultimately lead to decreased individual and organisational performance. A growing body of research has focused on the negative effects of social anxiety symptoms on the well-being of the individual, but little research has measured the effect of social anxiety symptoms on work limitations and perceived performance difficulties. Previous research has also focused on the effects of job characteristics on employee well-being. Research on the moderating effect of job characteristics and the relationship between social anxiety symptoms, job characteristics, work limitations and perceived performance difficulties is limited.

The main objective of the present study was to determine the prevalence and frequency of social anxiety symptoms within a sample of managerial level employees. The impact of these social anxiety symptoms on work limitations and how it affects perceived performance difficulties was also investigated. Lastly the aim was to determine whether the job characteristics have a moderating effect on those relationships.

The most important findings of this study were that social anxiety symptoms cause work limitations in several areas that are not restricted to social interaction or presentation. Social anxiety symptoms were also found to cause several perceived performance difficulties, again not only restricted to social interaction. Social anxiety was found to affect all areas of work.

Further, the study found that job insecurity increases social anxiety symptoms and as a consequence also increases work limitations and perceived performance difficulties. This highlights the need for organisations to guard against feelings of job insecurity among their employees. It was also found that

organisational support may act as a buffer against demands and may decrease work limitations and perceived performance difficulties. Growth opportunities were found to moderate the relationship between social anxiety and perceived performance difficulties. Organisations should therefore increase employee resources such as organisational support and growth opportunities. This is likely to decrease work limitations and perceived performance difficulties, ultimately leading to an increase in performance.

Whilst much research is still needed to fully understand the relationships between social anxiety symptoms, job demands and resources, work limitations and perceived performance difficulties, the findings of the present study highlight the need to manage processes that promote the recognition and treatment of social anxiety symptoms within organisations. This study also highlights the positive effects of resources by decreasing work limitations and perceived performance difficulties. Clearly, this is an area worthy of much more research. Hopefully this study will stimulate others to further investigate important unanswered questions highlighted by these findings.

6. REFERENCE LIST

- Acarturk, C., Smit, F., de Graaf, R., van Straten, A., ten Have, M., & Cuijpers, P. (2009). Economic costs of social phobia: A population-based study. *Journal of Affective Disorders*, 115, 421-429.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders*. (4th ed.). Washington, DC: American Psychiatric Association.
- Andrea, H., Bultmann, U., van Amelsvoort, L., & Kant, Y. (2009). The incidence of anxiety and depression among employees – the role of psychosocial work characteristics. *Depression and Anxiety*, 26, 1040-1048.
- Angermeyer, J. A., Bruffaerts, S. B., Bryson, T. S. B., de Graaf, R., Gasquet, I., Brugha, T. S., Girolamo, G., Demyttenaere, K., Haro, J.M., Katz, S. J., Kessler, R. C., Kovess, V., Lepine, J. P., Ormel, J., Poldori, G., Russo, L. J., & Vilagut, G. (2001). Disability and quality of life impact of mental disorders in Europe: results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatrica Scand*, 109 (Suppl 420), 38-46.
- Antai-Otong, D. (2008). The art of prescribing: social anxiety disorder: characteristics, course, and pharmacological management prevalence. *Perspectives in Psychiatric Care*, 44 (1), 48-53.
- Antonovsky, A. (1987). The salutogenic perspective: Toward a new vision of health and illness. *Advances*, 4, 47-55.
- Aronsson, G., Gustafsson, K., & Dallner, M. (2000). Sick but yet at work. An empirical study of sickness presenteeism. *Journal of Epidemiology and Community Health*, 54(7), 502-509.
- Bakker, A. B. (2004). Flow among music teachers and their students: The crossover of peak experiences. *Journal of Vocational Behaviour*, 66, 26 – 44.
- Bakker, A. B., & Demerouti, E. (2006). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.

- Bakker, A. B., Van Emmerik, H., & Van Riet, P. (2008). How job demands, resources, and burnout predict objective performance: A constructive replication. *Anxiety, Stress & Coping*, 21(3), 309-324.
- Bartram, D. & SHL Group (2005). The great eight competencies: A criterion-centric approach to validation. *Journal of Applied Psychology*, 90, 1185-1203.
- Baruch, Y., & Lambert, R. (2006). Organizational anxiety: Applying psychological concepts into organisational theory. *Journal of Managerial Psychology*, 22(1), 84-99.
- Baumeister, H., Härter, M. (2007). Prevalence of mental disorders based on general population surveys. *Social Psychiatry Psychiatric Epidemiology*, 42(7), 537-46.
- Bernstein, D. P., Fink, L., Handelsman, L., Foote, J., Lovejoy, M., Wenzel, K., Sapareto, E., & Ruggiero, J. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. *The American Journal of Psychiatry*, 151 (8), 1132-1135.
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., Stokes, J., Handelsman, L., Medrano, M., Desmond, D., & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse and Neglect*, 27, 169-190.
- Berrocal, C., Moreno, M. A. R., Rando, M. A., Rucci, P., & Cassano, G. B. (2006). Social Anxiety and obsessive-compulsive spectra: Validation of the SHY-SR and the OBS-SR among Spanish population. *Psychiatry Research*, 142(2-3), 241-251.
- Borman, W. C., & Motowidlo, D. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 71 – 98). San Francisco: Jossey-Bass.
- Brouwer, W.B.F., Koopmanschap, M.A., & Rutten, F.F.H. (1999). Productivity losses without absence: measurement validation and empirical evidence. *Health Policy*, 48, 13-27.

- Bruch, M.A., & Fallon, M. (2003). Social phobia and difficulties in occupational adjustment. *Journal of Counseling Psychology, 50*(1), 109-117.
- Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In N. Schmitt & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 71 – 98). San Francisco: Jossey-Bass.
- Campbell, J. P., McHenry, J. J., & Wise, L. L. (1990). Modeling job performance in a population of jobs. *Personnel Psychology, 43*, 313-333.
- Carleton, R. N., Collimore, K. C., Asmundson, G. J., McCabe, R. E., Rowa, K., & Antony, M. M. (2010). SPINning factors: Factor analytic evaluation of the Social Phobia Inventory in clinical and nonclinical undergraduate samples. *Journal of Anxiety Disorders, 24*, 94-101.
- Christensen, L. B. (1985). *Experimental Methodology*. (3rd ed.). Massachusetts: Allyn and Bacon.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). Hillsdale, New York: Erlbaum.
- Copanzano, R., & Wright, T. A. (1999). A five-year study of change in the relationship between well-being and job performance. *Consulting Psychology Journal: Practice and Research, 51*, 252-265.
- Cotton, P., & Hart, P. M. (2003). Occupational wellbeing and performance: A review of organisational health research. *Australian Psychologist, 38*(2), 118-127.
- Daniels, K., & Harris, C. (2000). Work, psychological well-being and performance. *Occupational Medicine, 50*(5), 304-309.
- Davidson, R. T., Dana, C., Hughes, R. N., George, L. K. & Blazer, D. G. (1994). The boundary of social phobia. *Archives of General Psychiatry, 51*, 975-983.
- De Cuyper, N. & De Witte, H. (2005). Job insecurity: Mediator and moderator of the relationship between type of contract and various outcomes. *SA Journal of Industrial Psychology, 31*(4), 79-86.

- Dell'Osso, L., Rucci, P., Cassano, G. B., Maser, J. D., Endicott, J., Shear, M. K., Sarno, N., Sacttoni, M., Grochocinski, V. J., & Frank, E. (2002). Measuring social anxiety and obsessive-compulsive spectra: Comparison of interviews and self-report instruments. *Comprehensive Psychiatry*, 43(2), 81-87.
- Dell'Osso, L., Rucci, P., Ducci, F., Ciapparelli, A., Vivarelli, L., Carlini Ramacciotti, C., & Cassano, G.B. (2003). Social anxiety spectrum. *European Archives of Psychiatry Clinical Neurosciences*, 253, 286-291.
- Dewa, C. S., & Lin, E. (2000). Chronic physical illness, psychiatric disorder and disability in the workplace. *Social Science & Medicine*, 51, 41-50.
- De Witte, H. (2005). Job insecurity: review of the international literature on definitions, prevalence, antecedents and consequences. *South African Journal of Industrial Psychology*, 31(4), 1-6.
- Evans, C. (2004). Health and work productivity assessment: State of the art or state of flux? *Journal of Environmental Medicine*, 46(6), S3-S11.
- Fehm, L., Beesdo, K., Jacobi, F., & Fiedler, A. (2008). Social anxiety disorder above and below the diagnostic threshold: prevalence, comorbidity and impairment in the general population. *Social Psychiatry Epidemiology*, 43(4), 257-65.
- Gravetter, F. J., & Forzano, L. B. (2003). *Research Methods for the Behavioural Sciences*. Belmont: Thomson Wadsworth.
- Hansen, C. D., & Andersen, J. H. (2008). Going ill to work – What personal circumstances, attitudes and work-related factors are associated with sickness presenteeism? *Social Science and Medicine*, 1-9.
- Haslam, C., Atkinson, S., Brown, S. S., & Haslam, R. A. (2005). Anxiety and depression in the workplace: Effects on the individual and organization (a focus group investigation). *Journal of Affective Disorders*, 88, 209-215.
- Hayward, C., Wilson, K. A., Lagle, K., Kraemer, H. C., Killen, J., D., & Taylor, C. B. (2008). The developmental psychopathology of social anxiety in adolescents. *Depression and Anxiety*, 25, 200-206.

- Health and Safety Executive (2008) Management standards for work-related stress. Retrieved from www.hse.gov.uk/stress/
- Heiser, N. A., Turner, S. M., & Beidel, D. (2003). Shyness: relationship to social phobia and other psychiatric disorders. *Behavioural Research & Therapy*, 41, 209-221.
- Heiser, N. A., Turner, S. M., Beidel, D. C., & Robertson-Nay, R. (2009). Differentiating social phobia from shyness. *Journal of Anxiety Disorders*, 23, 469-476.
- Hemp, P. (2004). Presenteeism: at work – but out of it. *Harvard Business Review*, 82(10), 49-58.
- Herman, A. A., Stein, D. J., Seedat, S., Heeringa, S. G., Moomal, H., & Williams, D. R. (2009). The South African Stress and Health (SASH) Study: 12-month and lifetime prevalence of common mental disorders. *South African Medical Journal*, 99(5), 339 – 344.
- Hinrichsen, H., & Clark, D. M. (2003). Anticipatory processing in social anxiety: two pilot studies. *Journal of Behavior Therapy and Experimental Psychiatry*, 34, 205-218.
- Howard, F. (2008). Managing stress or enhancing well-being? Positive psychology's contributions to clinical supervision. *Australian Psychologist*, 43(2), 105-113.
- Iwase, M., Nakao, K., Takaishi, J., Yorifuji, K., Ikezawa, K., & Takeda, M. (2000). An empirical classification of social anxiety: Performance, interpersonal and offensive. *Psychiatry and Clinical Neurosciences*, 54, 67-75.
- Jackson, L. T. B., Rothmann, S., & Van de Vijver, F. J. R. (2006). A model of work-related well-being for educators in South Africa. *Stress and Health*, 22, 263-274.
- Johnson, H. S., Inderbitzen-Nolan, H. M., & Anderson, E. R. (2006). The Social Phobia Inventory: Validity and reliability in an adolescent community sample. *Psychological Assessment*, 18(3), 269-277.
- Kerlinger, F. N. (1973). *Foundations of Behavioural Research*. (2nd ed.). New York: Holt, Rinehart and Winston.

- Kessler, R.C., & Frank, R. G. (1997). The impact of psychiatric disorders on work loss days. *Psychological Medicine*, 27, 861-873.
- Kessler, R. C., Merikangas, K. R., & Wang, P. S. (2008). The prevalence and correlates of work-place depression in the national co-morbidity survey replication. *Journal of Occupational Environmental Medicine*, 50(4), 381-90.
- Knappe, S., Beesdo, K., Fehm, L., Lieb, R., & Wittchen, H., U. (2009). Associations of familial risk factors with social fears and social phobia: evidence for the continuum hypothesis in social anxiety disorder? *Journal of Neural Transmission*, 116(6), 639-648.
- Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). Delhi: New Age International.
- Lerner, D., Amick, B. C., Rogers, W. H., Malspeis, S., Bungay, K., & Cynn, D. (2001). The Work Limitations Questionnaire. *Medical Care*, 39(1), 72-85.
- Lerner, D. (2009). The Work Limitations Questionnaire's validity and reliability among patients with osteoarthritis. *Journal of Clinical Epidemiology*, 55(2), 197-208.
- Linden, M., & Muschalla, B. (2007). Anxiety disorders and work-related anxieties. *Journal of Anxiety Disorders*, 21, 467-474.
- Magee, W. J., Eaton, W. W., Wittchen, H. U., McGonagle, K. A., & Kessler, R. C. (1996). Agoraphobia, simple phobia and social phobia in the National Comorbidity Survey. *Archives of General Psychiatry*, 53, 159-169.
- Melchior, M., Caspi, A., Milne, B.J., Danese, A., Poulton, R., & Moffitt, T.E. (2007). Work stress precipitates depression and anxiety in young, working women and men. *Psychological Medicine*, 37(8), 1119-1129.
- Merikangas, K.R., Avenevoli, S., Acharyya, S., Zhang, H., & Angst, J. (2002). The spectrum of social phobia in the Zurich cohort study of young adults. *Society of Biological Psychiatry*, 51, 81-91.

- Ormel, J., Petukhova, M., Chatterji, S., Aguilar-Gaxiola, S., Alonso, J., Angermeyer, M. C., Bromet, E.J., Burger, H., Demyttenaere, K., de Girolamo, G., Haro, J.M., Hwang, I., Karam, E., Kawakami, N., Lépine, J.P., Medina-Mora M.E., Posada-Villa, J., Sampson, N., Scott, K., Ustün, T.B., Von Korff, M., Williams, D.R., Zhang, M., & Kessler, R.C. (2008). Disability and treatment of specific mental and physical disorders across the world. *British Journal of Psychiatry*, 192(5), 368.
- Pallanti, S., Pampaloni, I., Rucci, P., Maina, G., & Mauri, M. (2008). Quality of life and clinical characteristics of patients with generalized and performance-focused social anxiety disorder : An Italian study. *International Journal of Psychiatry in Clinical Practise*, 12(4), 256-260.
- Parkes, K. R. (1990). Coping, negative affectivity, and the work environment: Additive and interactive predictors of mental health. *Journal of Applied Psychology*, 75(4), 399-409.
- Penninx, B. W. J. H. (2007). The contribution of working conditions and social support to the onset of depressive and anxiety disorders among male and female employees. *Social Science & Medicine*, 64, 401-410.
- Prasad, M., Wahlqvist, P., Shikhar, R., & Shih, Y.T. (2004). A review of self-report instruments measuring health-related work productivity: A patient-reported outcomes perspective. *Pharmacoeconomics*, 22(4), 225-244.
- Quilty, L. C., Van Ameringen, M., Mancini, C., Oakman, J., & Farvolden, P. (2003). Quality of life and the anxiety disorders. *Anxiety Disorders*, 17, 405-426.
- Randall, M. L., Cropanzano, R., Bormann, C. A., & Birjulin, A. (1999). Organizational politics and organizational support as predictors of work attitudes, job performance, and organizational citizenship behaviour. *Journal of Organizational Behaviour*, 20, 159-174.
- Rapee, R. M. (1996). Descriptive psychopathology of social phobia. In R.G. Heimberg, M.R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.). *Social phobia: Diagnosis, assessment, and treatment (pp. 41-66)*. New York: Guilford Press.

- Rothmann, S., Mostert, K., & Strydom, M. (2006). A psychometric evaluation of the job demands-resources scale in South Africa. *SA Journal of Industrial Psychology*, 32(4), 76-86.
- Rothman, S., & Jordaan, G. M. E. (2006). Job demands, job resources and work engagement of academic staff in South African higher education institutions. *SA Journal of Industrial Psychology*, 32(4), 87-96.
- Rothman, S., & Joubert, J. H. M. (2007). Job demands, job resources, burnout and work engagement of managers at a platinum mine in the North West Province. *South African Journal of Business Management*, 38(3), 49-61.
- Rumble, S., Swartz, L., Parry, C., & Zwarenstein, M. (1996). Prevalence of psychiatric morbidity in the adult population of a rural South African village. *Psychological Medicine*, 26, 997-1007.
- Ruscio, A. M., Brown, T. A., Chiu, W. T., Sareen, J., Stein, M. B., & Kessler, R. C. (2008). Social fears and social phobia in the USA: results from the National Comorbidity Survey Replication. *Psychological Medicine*, 38(1), 15-28.
- Rusli, B. B., Edimansyah, B. A., & Naing, L. (2008). Working conditions, self-perceived stress, anxiety, depression and quality of life: a structural equation modeling approach. *BMC Public Health*, 6(8), 48.
- Sanderson, K., & Andrews, G. (2006). Common mental disorders in the workforce: Recent findings from descriptive and social epidemiology. *Canadian Journal of Psychiatry*, 51(2), 63-75.
- Sanderson, K., Tilse, E., Nicholson, J., Oldenburg, B., & Graves, N. (2007). Which presenteeism measures are more sensitive to depression and anxiety? *Journal of Affective Disorders*, 101, 65-74.
- Sanne, B., Mykletun, A., Dahl, A. A., Moen, B. E., & Tell, G. S. (2005). Testing the job demand-control-support model with anxiety and depression as outcomes: The Hordaland health study. *Occupational Medicine*, 55, 463-473.

- Seedat, S., Williams, D. R., Herman, A. A., Moomal, H., Williams, S. L., Jackson, P. B., Myer, L., & Stein, D. (2009). Mental health services use among South Africans for mood, anxiety and substance use disorders. *South African Medical Journal*, 5(7), 346.
- Simon, G., E., Barber C., Birnbaum H. G., Frank R. G., Greenberg P. E., Rose R.M., Wang P.S., & Kessler R.C. (2001). Depression and work productivity: the comparative costs of treatment versus non-treatment. *Journal of Occupational Environmental Medicine*, 43(1), 2-9.
- Schmitt, J.M., & Ford, D.E. (2006). Work limitations and productivity loss are associated with health-related quality of life but not with clinical severity in patients with psoriasis. *Dermatology*, 213, 102-110.
- Schneier, F. R., Johnson, J., Hornig, C. D., Liebowitz, M. R., & Weissman, M. M. (1992). Social Phobia. Co-morbidity and morbidity in an epidemiologic sample. *Archives of General Psychiatry*, 49, 282-288.
- Stansfeld, S.A., Clark, C., Caldwell, T., Rodgers, B., & Power, C. (2008). Psychosocial work characteristics and anxiety and depressive disorders in midlife: the effects of prior psychological distress. *Occupational Environmental Medicine*, 65(9), 634-642.
- Stansfield, S. A., Blackmore, E. R., Zagorski, B. M., Munce, S., Stewart, D. E., & Weller, I. (2008). Work characteristics and social phobia in a nationally representative employed sample. *Canadian Journal of Psychiatry*, 53(6), 371-376.
- Staw, B. M., & Barsade, S. G. (1993). Affect and managerial performance: A test of the sadder-but-wiser vs happier-and-smarter hypotheses. *Administrative Science Quarterly*, 38, 304-331.
- Stein, M. B., & Chavira, D. A. (1998). Subtypes of social phobia and comorbidity with depression and other anxiety disorders. *Journal of Affective Disorders*, 50, S11-S16.
- Stein, M.B., & Stein, D. (2008). Social anxiety disorder. *Lancet*, 317, 1115-1125.

- Stein, D. J., Seedat, S., Herman, A., Moomal, H., Heeringa, S. G., Kessler, R. C., & Williams, D. R. (2008). Lifetime prevalence of psychiatric disorders in South Africa. *British Journal of Psychiatry*, 192(2), 112-117.
- Stein, D. J., Ruscio, A. M., Lee, S., Petukhova, M., Alonso, J., Andrade, L. H., Benjet, C., Bromet, E., Demyttenaere, K., Florescu, S., de Girolamo, G., de Graaf, R., Gureje, O., He, Y., Hinkov, H., Hu, C., Iwata, N., Karam, E. G., Lepine, J. P., Matschinger, H., Oakley Browne, M., Posada-Villa, J., Sagar, R., Williams, D. R., & Kessler, R. C. (2009). Subtyping social anxiety disorder in developed and developing countries. *Depression and Anxiety*, 1, 1-14.
- Topchick, G. (2005). Ghosts in the office. *Associations Now*, 1(2), 59-64.
- Van der Klink, J. J. L., Blonk, R. W. B., Schene, A. H., & van Dijk, F. J. H. (2001). The benefits of interventions for work-related stress. *American Journal of Public health*, 91, 270-276.
- Vassilopoulos, S. (2008). Coping strategies and anticipatory processing in high and low socially anxious individuals. *Journal of Anxiety Disorders*, 22(1), 98-107.
- Ventresca, Y. (2008). Present but unproductive. *Incentive*, 182(1), 48-49.
- Voci, S. C., Beitchman, J. H., Brownlie, E. B., & Wilson, B. (2006). Social anxiety in late adolescence: The importance of early childhood language impairment. *Anxiety Disorders*, 20, 915-930.
- Vorster, M., Olckers, C., Buys, M. A., & Schaap, P. (2005). The construct equivalence of the Job Diagnostic Survey for diverse South African cultural groups. *SA Journal of Industrial Psychology*, 31(1), 31-37.
- Wacker, H. R., Mullijans, R., Klein, K. H., & Battegay, R. (1992). Identification of cases of anxiety disorders and affective disorders in the community according to ICD-10 and DSM-III-R by using the Composite International Diagnostic Interview (CIDI). *International Journal of Methods Psychiatric Research*, 2, 91-100.
- Warr, P. (2002). *Psychology at work*. London: Penguin Books.

- Wittchen, H.U., Fuetsch, M., Sonntag, H., Muller, N., & Liebowitz, M. (1999). Disability and quality of life in pure and comorbid social phobia. Findings from a controlled study. *European Psychiatry*, 14, 118-131.
- Wittchen, H. U., Nelson, C. B., & Kessler, R. C. (1999). Social fears and DSM-IV social phobia in a community sample of adolescents and young adults: Prevalence, risk factors and comorbidity. *Psychological Medicine*, 29, 309 – 329.
- Wright, T. A. (2005). The role of “happiness” in organizational research: Past, present and future direction, In P. L. Perrewe & D. C. Ganster (Eds.), *Research in occupational stress and well-being*, pp. 225-268. Amsterdam: JAI Press.
- Wright, T. A., Bonnet, D. G., & Cropanzano, R. (2007). *Journal of Occupational Health Psychology*, 12(2), 93-104.
- Wright, T. A., & Staw, B. M. (1999). Affect and favourable work outcomes: Two longitudinal tests of the happy-productive worker thesis. *Journal of Organizational Behaviour*, 20, 1-23.
- Xanthopoulou, D., Bakker, A. B., Dollard, M. F., Demerouti, E., Schaufeli, W. B., Taris, T. W., & Schreurs, P. J. G. (2007). When do job demands particularly predict burnout? The moderating role of job resources. *Journal of Managerial Psychology*, 22(8), 766-786.
- Zhang, W., Ross, J., & Davidson, J. T. R. (2004). Social anxiety disorder in callers to the anxiety disorder association of America. *Depression and Anxiety*, 20, 101-106.
- Zickar, M. J. (2003). Remembering Arthur Kornhauser: Industrial Psychology's advocate for worker well-being. *Journal of Applied Psychology*, 88(2), 363-369.

Appendix A: Moderator effect of Job Characteristics tables

independent=SHY_IP moderator=JCS GO dependent=WLQ Time Management

Model: $v11 = b0 + b1 \cdot v2 + \text{moderator} \cdot v2 \cdot v7$ (scales in results.stw) Dep. var: WLQ Time Management Loss: (OBS-PRED)**2 Final loss: 88.819196202 R= .36083 Variance explained: 13.020%			
	b0	b1	moderator
Estimate	1.468	0.013	0.002
Std.Err.	0.148	0.033	0.001
t(109)	9.885	0.402	1.371
p-value	0.000	0.688	0.173

independent=SHY_IP moderator=JCS GO dependent=WLQ Mental-Interpersonal

Model: $v13 = b0 + b1 \cdot v2 + \text{moderator} \cdot v2 \cdot v7$ (scales in results.stw) Dep. var: WLQ Mental-Interpersonal Loss: (OBS-PRED)**2 Final loss: 92.839621983 R= .36978 Variance explained: 13.674%			
	b0	b1	moderator
Estimate	1.409	-0.000	0.002
Std.Err.	0.150	0.033	0.001
t(109)	9.393	-0.014	1.809
p-value	0.000	0.989	0.073

independent=SHY_IP moderator=JCS GO dependent=PWD Interacting and presenting

Model: $v_{23}=b_0+b_1*v_2+moderator*v_2*v_7$ (scales in results.stw) Dep. var: PWD Interacting and presenting Loss: (OBS-PRED)**2 Final loss: 1746.9565623 R= .46778 Variance explained: 21.882%			
	b0	b1	moderator
Estimate	6.342741	0.574245	-0.01062
Std.Err.	0.650652	0.144437	0.00561
t(109)	9.748286	3.975758	-1.89309
p-value	0.000000	0.000125	0.06093

independent=SHY_IP moderator=JCS GO dependent=PWD Adapting and coping

Model: $v_{27}=b_0+b_1*v_2+moderator*v_2*v_7$ (scales in results.stw) Dep. var: PWD Adapting and coping Loss: (OBS-PRED)**2 Final loss: 968.25652554 R= .28074 Variance explained: 7.8812%			
	b0	b1	moderator
Estimate	4.543554	0.196362	-0.002397
Std.Err.	0.484399	0.107530	0.004175
t(109)	9.379785	1.826106	-0.573962
p-value	0.000000	0.070498	0.567144

independent=SHY_IP moderator=JCS JS dependent=WLQ Time

Management

Model: $v_{11}=b_0+b_1*v_2+moderator*v_2*v_9$ (scales in results.stw) Dep. var: WLQ Time Management Loss: (OBS-PRED)**2 Final loss: 89.145545133 R= .35637 Variance explained: 12.700%			
	b0	b1	moderator
Estimate	1.53957	0.023531	0.003828
Std.Err.	0.14963	0.029463	0.003153
t(109)	10.28902	0.798676	1.214011
p-value	0.00000	0.426215	0.227367

independent=SHY_IP moderator=JCS JS dependent=WLQ Mental-

Interpersonal

Model: $v_{13}=b_0+b_1*v_2+moderator*v_2*v_9$ (scales in results.stw) Dep. var: WLQ Mental- Interpersonal Loss: (OBS-PRED)**2 Final loss: 94.061069438 R= .35409 Variance explained: 12.538%			
	b0	b1	moderator
Estimate	1.500920	0.019495	0.004226
Std.Err.	0.152114	0.029757	0.003157
t(109)	9.867096	0.655162	1.338487
p-value	0.000000	0.513719	0.183473

independent=SHY_IP moderator=JCS JS dependent=PWD Leading and deciding

Model: $v_{21}=b_0+b_1*v_2+moderator*v_2*v_9$ (scales in results.stw) Dep. var: PWD Leading and deciding Loss: (OBS-PRED)**2 Final loss: 826.73799337 R= .47880 Variance explained: 22.925%			
	b0	b1	moderator
Estimate	3.380125	0.256252	-0.001183
Std.Err.	0.450543	0.087779	0.009327
t(109)	7.502341	2.919293	-0.126812
p-value	0.000000	0.004242	0.899317

independent=SHY_IP moderator=JCS JS dependent=PWD Interacting and presenting

Model: $v_{23}=b_0+b_1*v_2+moderator*v_2*v_9$ (scales in results.stw) Dep. var: PWD Interacting and presenting Loss: (OBS-PRED)**2 Final loss: 1802.6932745 R= .44033 Variance explained: 19.389%			
	b0	b1	moderator
Estimate	6.133963	0.316005	0.001384
Std.Err.	0.665293	0.129619	0.013773
t(109)	9.219942	2.437963	0.100459
p-value	0.000000	0.016343	0.920160

independent=SHY_IP moderator=JCS JS dependent=PWD Adapting and coping

Model: $v27 = b0 + b1 \cdot v2 + \text{moderator} \cdot v2 \cdot v9$ (scales in results.stw) Dep. var: PWD Adapting and coping Loss: (OBS-PRED)**2 Final loss: 970.37095678 R= .27713 Variance explained: 7.6801%			
	b0	b1	moderator
Estimate	4.462964	0.164813	-0.002940
Std.Err.	0.488114	0.095099	0.010105
t(109)	9.143290	1.733069	-0.290977
p-value	0.000000	0.085836	0.771607

independent=SHY_IP moderator=JCS JS dependent=PWD Analyzing and interpreting

Model: $v24 = b0 + b1 \cdot v2 + \text{moderator} \cdot v2 \cdot v9$ (scales in results.stw) Dep. var: PWD Analyzing and interpreting Loss: (OBS-PRED)**2 Final loss: 2167.3437375 R= .31059 Variance explained: 9.6469%			
	b0	b1	moderator
Estimate	6.821972	0.063357	0.019325
Std.Err.	0.729484	0.142125	0.015102
t(109)	9.351774	0.445785	1.279609
p-value	0.000000	0.656613	0.203327

independent=SHY_IP moderator=JCS JS dependent=PWD total

Model: $v32 = b0 + b1 \cdot v2 + \text{moderator} \cdot v2 \cdot v9$ (scales in results.stw) Dep. var: PWD total Loss: (OBS-PRED)**2 Final loss: 64365.116176 R= .37563 Variance explained: 14.110%			
	b0	b1	moderator
Estimate	42.96452	1.275839	0.040217
Std.Err.	3.97537	0.774518	0.082300
t(109)	10.80768	1.647268	0.488665
p-value	0.00000	0.102306	0.626035

independent=SHY_BISS moderator=JCS GO dependent=WLQ Time Management

Model: $v_{11}=b_0+b_1*v_3+moderator*v_2*v_7$ (scales in results.stw) Dep. var: WLQ Time Management Loss: (OBS-PRED)**2 Final loss: 67.871278454 R= .57908 Variance explained: 33.534%			
	b0	b1	moderator
Estimate	1.39649	0.119381	0.000166
Std.Err.	0.12821	0.020518	0.000601
t(109)	10.89199	5.818431	0.276438
p-value	0.00000	0.000000	0.782735

independent=SHY_BISS moderator=JCS GO dependent=WLQ Mental-Interpersonal

Model: $v_{13}=b_0+b_1*v_3+moderator*v_2*v_7$ (scales in results.stw) Dep. var: WLQ Mental-Interpersonal Loss: (OBS-PRED)**2 Final loss: 82.533174874 R= .48226 Variance explained: 23.25			
	b0	b1	moderator
Estimate	1.349879	0.082774	0.000932
Std.Err.	0.139988	0.022232	0.000646
t(109)	9.642789	3.723103	1.443178
p-value	0.000000	0.000311	0.151787

independent=SHY_BISS moderator=JCS GO dependent=PWD Leading and deciding

Model: $v21 = b0 + b1 \cdot v3 + \text{moderator} \cdot v2 \cdot v7$ (scales in results.stw) Dep. var: PWD Leading and deciding Loss: (OBS-PRED)**2 Final loss: 866.81934515 R= .43805 Variance explained: 19.188%			
	b0	b1	moderator
Estimate	3.796277	0.230254	0.003006
Std.Err.	0.454497	0.071388	0.002072
t(109)	8.352691	3.225389	1.450751
p-value	0.000000	0.001649	0.149644

independent=SHY_BISS moderator=JCS GO dependent=PWD Interacting and presenting

Model: $v23 = b0 + b1 \cdot v3 + \text{moderator} \cdot v2 \cdot v7$ (scales in results.stw) Dep. var: PWD Interacting and presenting Loss: (OBS-PRED)**2 Final loss: 1852.4959092 R= .41427 Variance explained: 17.162%			
	b0	b1	moderator
Estimate	6.562197	0.304716	0.004447
Std.Err.	0.664425	0.104362	0.003030
t(109)	9.876511	2.919816	1.467987
p-value	0.000000	0.004235	0.144910

independent=SHY_BISS moderator=JCS GO dependent=PWD Adapting and coping

Model: $v27 = b0 + b1 \cdot v3 + \text{moderator} \cdot v2 \cdot v7$ (scales in results.stw) Dep. var: PWD Adapting and coping Loss: (OBS-PRED)**2 Final loss: 884.25161185 R= .39841 Variance explained: 15.87			
	b0	b1	moderator
Estimate	4.479211	0.272577	-0.000045
Std.Err.	0.459045	0.072102	0.002093
t(109)	9.757680	3.780422	-0.021522
p-value	0.000000	0.000253	0.982868

independent=SHY_BISS moderator=JCS GO dependent=PWD Analyzing and interpreting

Model: $v24 = b0 + b1 \cdot v3 + \text{moderator} \cdot v2 \cdot v7$ (scales in results.stw) Dep. var: PWD Analyzing and interpreting Loss: (OBS-PRED)**2 Final loss: 2168.6339329 R= .30973 Variance explained: 9.5931%			
	b0	b1	moderator
Estimate	7.48198	0.363974	-0.002768
Std.Err.	0.71889	0.112916	0.003278
t(109)	10.40773	3.223410	-0.844502
p-value	0.00000	0.001660	0.400189

independent=SHY_BISS moderator=JCS GO dependent=PWD total

Model: $v32 = b0 + b1 \cdot v3 + \text{moderator} \cdot v2 \cdot v7$ (scales in results.stw) Dep. var: PWD total Loss: (OBS-PRED)**2 Final loss: 61133.567251 R= .42921 Variance explained: 18.422%			
	b0	b1	moderator
Estimate	45.26601	2.492357	-0.001070
Std.Err.	3.81687	0.599517	0.017403
t(109)	11.85947	4.157274	-0.061485
p-value	0.00000	0.000063	0.951082

independent=SHY_BISS moderator=JCS JS dependent=WLQ Time Management

Model: $v_{11}=b_0+b_1*v_3+moderator*v_2*v_9$ (scales in results.stw) Dep. var: WLQ Time Management Loss: (OBS-PRED)**2 Final loss: 67.916683497 R= .57870 Variance explained: 33.489%			
	b0	b1	moderator
Estimate	1.41972	0.123482	-0.000101
Std.Err.	0.11223	0.020900	0.001700
t(109)	12.65016	5.908267	-0.059128
p-value	0.00000	0.000000	0.952958

independent=SHY_BISS moderator=JCS JS dependent=WLQ Mental-Interpersonal

Model: $v_{13}=b_0+b_1*v_3+moderator*v_2*v_9$ (scales in results.stw) Dep. var: WLQ Mental-Interpersonal Loss: (OBS-PRED)**2 Final loss: 83.290602649 R= .47490 Variance explained: 22.553%			
	b0	b1	moderator
Estimate	1.42156	0.087464	0.001854
Std.Err.	0.12259	0.022706	0.001805
t(109)	11.59598	3.852060	1.026845
p-value	0.00000	0.000196	0.306726

independent=SHY_BISS moderator=JCS JS dependent=PWD Adapting and coping

Model: $v_{27}=b_0+b_1*v_3+moderator*v_2*v_9$ (scales in results.stw) Dep. var: PWD Adapting and coping Loss: (OBS-PRED)**2 Final loss: 884.10785176 R= .39859 Variance explained: 15.887%			
	b0	b1	moderator
Estimate	4.49391	0.277690	-0.000799
Std.Err.	0.39987	0.073628	0.005849
t(109)	11.23839	3.771540	-0.136656
p-value	0.00000	0.000261	0.891548

independent=SHY_BISS moderator=JCS JS dependent=PWD Analyzing and interpreting

Model: $v_{24}=b_0+b_1*v_3+moderator*v_2*v_9$ (scales in results.stw) Dep. var: PWD Analyzing and interpreting Loss: (OBS-PRED)**2 Final loss: 2120.5858286 R= .34053 Variance explained: 11.596%			
	b0	b1	moderator
Estimate	6.70321	0.186418	0.016373
Std.Err.	0.61929	0.114029	0.009058
t(109)	10.82398	1.634825	1.807493
p-value	0.00000	0.104893	0.073370

independent=SHY_BISS moderator=JCS JS dependent=PWD total

Model: $v32=b0+b1*v3+moderator*v2*v9$ (scales in results.stw) Dep. var: PWD total Loss: (OBS-PRED)**2 Final loss: 60175.680950 R= .44385 Variance explained: 19.701%			
	b0	b1	moderator
Estimate	43.47089	1.986956	0.064500
Std.Err.	3.29897	0.607434	0.048254
t(109)	13.17712	3.271063	1.336666
p-value	0.00000	0.001424	0.184041

independent=SHY_SAPF moderator=JCS GO dependent=WLQ Time Management

Model: $v11=b0+b1*v4+moderator*v2*v7$ (scales in results.stw) Dep. var: WLQ Time Management Loss: (OBS-PRED)**2 Final loss: 72.920238052 R= .53469 Variance explained: 28.589%			
	b0	b1	moderator
Estimate	1.44151	0.023554	0.000376
Std.Err.	0.13230	0.004812	0.000630
t(109)	10.89563	4.895201	0.596986
p-value	0.00000	0.000003	0.551755

independent=SHY_SAPF moderator=JCS GO dependent=WLQ Mental-Interpersonal

Model: $v13=b0+b1*v4+moderator*v2*v7$ (scales in results.stw) Dep. var: WLQ Mental-Interpersonal Loss: (OBS-PRED)**2 Final loss: 76.137803939 R= .54041 Variance explained: 29.204%			
	b0	b1	moderator
Estimate	1.37176	0.023999	0.000437
Std.Err.	0.13380	0.004863	0.000634
t(109)	10.25232	4.934524	0.689689
p-value	0.00000	0.000003	0.491829

independent=SHY_SAPF moderator=JCS GO dependent=PWD Leading and deciding

Model: $v21=b0+b1*v4+moderator*v2*v7$ (scales in results.stw) Dep. var: PWD Leading and deciding Loss: (OBS-PRED)**2 Final loss: 843.21334481 R= .46248 Variance explained: 21.389%			
	b0	b1	moderator
Estimate	3.889342	0.059948	0.002106
Std.Err.	0.445234	0.016120	0.002103
t(109)	8.735503	3.718850	1.001313
p-value	0.000000	0.000314	0.318834

independent=SHY_SAPF moderator=JCS GO dependent=PWD Interacting and presenting

Model: $v23=b0+b1*v4+moderator*v2*v7$ (scales in results.stw) Dep. var: PWD Interacting and presenting Loss: (OBS-PRED)**2 Final loss: 1761.3903750 R= .46083 Variance explained: 21.236%			
	b0	b1	moderator
Estimate	6.66881	0.089507	0.002453
Std.Err.	0.64350	0.023298	0.003040
t(109)	10.36337	3.841788	0.807021
p-value	0.00000	0.000203	0.421365

independent=SHY_SAPF moderator=JCS GO dependent=PWD Adapting and coping

Model: $v_{27}=b_0+b_1*v_4+moderator*v_2*v_7$ (scales in results.stw) Dep. var: PWD Adapting and coping Loss: (OBS-PRED)**2 Final loss: 951.21080121 R= .30827 Variance explained: 9.5029%			
	b0	b1	moderator
Estimate	4.640108	0.039791	0.001348
Std.Err.	0.472888	0.017121	0.002234
t(109)	9.812286	2.324105	0.603591
p-value	0.000000	0.021923	0.547336

independent=SHY_SAPF moderator=JCS GO dependent=PWD Analyzing and interpreting

Model: $v_{24}=b_0+b_1*v_4+moderator*v_2*v_7$ (scales in results.stw) Dep. var: PWD Analyzing and interpreting Loss: (OBS-PRED)**2 Final loss: 2014.3936982 R= .40029 Variance explained: 16.023%			
	b0	b1	moderator
Estimate	7.60306	0.110759	-0.00545
Std.Err.	0.68816	0.024915	0.00325
t(109)	11.04833	4.445412	-1.67745
p-value	0.00000	0.000021	0.09624

independent=SHY_SAPF moderator=JCS GO dependent=PWD total

Model: $v_{32}=b_0+b_1*v_4+moderator*v_2*v_7$ (scales in results.stw) Dep. var: PWD total Loss: (OBS-PRED)**2 Final loss: 61728.947608 R= .41986 Variance explained: 17.628%			
	b0	b1	moderator
Estimate	46.43053	0.552316	-0.003197
Std.Err.	3.80946	0.137924	0.017996
t(109)	12.18820	4.004495	-0.177648
p-value	0.00000	0.000112	0.859320

independent=SHY_SAPF moderator=JCS JS dependent=WLQ Time Management

Model: $v_{11}=b_0+b_1*v_4+moderator*v_2*v_9$ (scales in results.stw) Dep. var: WLQ Time Management Loss: (OBS-PRED)**2 Final loss: 72.642479985 R= .53723 Variance explained: 28.862%			
	b0	b1	moderator
Estimate	1.52649	0.029050	-0.001838
Std.Err.	0.11247	0.005748	0.002089
t(109)	13.57237	5.054269	-0.880074
p-value	0.00000	0.000002	0.380755

independent=SHY_SAPF moderator=JCS JS dependent=WLQ Mental-Interpersonal

Model: $v_{13}=b_0+b_1*v_4+moderator*v_2*v_9$ (scales in results.stw) Dep. var: WLQ Mental-Interpersonal Loss: (OBS-PRED)**2 Final loss: 75.810764543 R= .54321 Variance explained: 29.508%			
	b0	b1	moderator
Estimate	1.46841	0.030263	-0.002023
Std.Err.	0.11328	0.005797	0.002068
t(109)	12.96303	5.220551	-0.978041
p-value	0.00000	0.000001	0.330181

independent=SHY_SAPF moderator=JCS JS dependent=PWD Leading and deciding

Model: $v_{21}=b_0+b_1*v_4+moderator*v_2*v_9$ (scales in results.stw) Dep. var: PWD Leading and deciding Loss: (OBS-PRED)**2 Final loss: 838.01240113 R= .46770 Variance explained: 21.874%			
	b0	b1	moderator
Estimate	3.98625	0.050791	0.009012
Std.Err.	0.37550	0.019335	0.006904
t(109)	10.61570	2.626937	1.305356
p-value	0.00000	0.009822	0.194447

independent=SHY_SAPF moderator=JCS JS dependent=PWD Interacting and presenting

Model: $v_{23}=b_0+b_1*v_4+moderator*v_2*v_9$ (scales in results.stw) Dep. var: PWD Interacting and presenting Loss: (OBS-PRED)**2 Final loss: 1760.3110582 R= .46135 Variance explained: 21.285%			
	b0	b1	moderator
Estimate	6.82109	0.083049	0.008492
Std.Err.	0.54423	0.028023	0.010006
t(109)	12.53340	2.963669	0.848737
p-value	0.00000	0.003714	0.397838

independent=SHY_SAPF moderator=JCS JS dependent=PWD Adapting and coping

Model: $v_{27}=b_0+b_1*v_4+moderator*v_2*v_9$ (scales in results.stw) Dep. var: PWD Adapting and coping Loss: (OBS-PRED)**2 Final loss: 954.30379484 R= .30346 Variance explained: 9.2087%			
	b0	b1	moderator
Estimate	4.81382	0.045857	0.000087
Std.Err.	0.40071	0.020633	0.007367
t(109)	12.01314	2.222564	0.011762
p-value	0.00000	0.028254	0.990637

independent=SHY_SAPF moderator=JCS JS dependent=PWD Analyzing and interpreting

Model: $v_{24}=b_0+b_1*v_4+moderator*v_2*v_9$ (scales in results.stw) Dep. var: PWD Analyzing and interpreting Loss: (OBS-PRED)**2 Final loss: 2060.5730444 R= .37547 Variance explained: 14.098%			
	b0	b1	moderator
Estimate	6.78925	0.074341	0.005312
Std.Err.	0.58882	0.030318	0.010826
t(109)	11.53022	2.452023	0.490679
p-value	0.00000	0.015750	0.624613

independent=SHY_SAPF moderator=JCS JS dependent=PWD total

Model: $v32 = b0 + b1 \cdot v4 + \text{moderator} \cdot v2 \cdot v9$ (scales in results.stw) Dep. var: PWD total Loss: (OBS-PRED)**2 Final loss: 61567.147912 R= .42242 Variance explained: 17.844%			
	b0	b1	moderator
Estimate	45.35075	0.466589	0.033785
Std.Err.	3.21858	0.165725	0.059174
t(109)	14.09028	2.815446	0.570947
p-value	0.00000	0.005757	0.569180