

# SCHOOL OF APPLIED HUMAN SCIENCES

# **MASTERS DEGREE**

**PSYC 8RM: MASTERS THESIS** 

Work-Life Balance: Occupational Stress, Psychological Capital and General Health among Working Women at a University

By

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### **ABSTRACT**

In recent times, South Africa has witnessed an increasing female labour force due to the changing context of work. Despite, the increase of women in the work sphere, many women are still seen to be situated in the home sphere. As a result, many working women in contemporary society have to juggle both work and home life – creating a work life balance challenge. This work-life balance challenge has been shown to increase occupational stress among women, consequently endangering their general health. One way to reduce the effect of occupational stress on general health is to have high psychological capital – positive strengths that can combat the effects of stress on health. The study was conducted among staff at a local university. Specifically, it was conducted on female employees at the university and included different categories of female staff including, cleaning staff, administrative staff, and academic staff. Data was assessed using quantitative methods as the purpose of the study was to identify key relationships. More precisely, a cross-sectional design was used. The study sought to determine the relationship between the four constructs of the study: work-life balance, occupational stress, psychological capital and general health and to determine whether psychological capital plays a mediating role in the relationship between occupational stress and general health. The results showed that psychological capital did not play a mediating role in the relationship between occupational stress and general health. However, the research has shown that a higher level of psychological capital is associated with higher levels of general health. Additionally, the study found that while negative work life balance does not necessarily diminish the experience of good general health, it may lead to an increase in occupational stress.

Keywords: Work-Life Balance, Occupational Stress, Psychological Capital, General Health, Working Women

### **CHAPTER ONE**

### INTRODUCTION

### 1.1 Introduction

This chapter provides an introduction to the study by offering a discussion and background of the study. Additionally, it offers a discussion of the context in which the study took place. It also provides a discussion on the research questions and objectives that the study aimed to address. Moreover, it provides a breakdown of the chapters that follow, specifically outlining what each chapter entails.

## 1.2 Background

Due to the changing nature of work, more women are seeking employment at various fields including factories, higher education institutions and occupations that were previously seen as male dominated. This has led to an increasing female labour population. According to Mostert (2009), the female labour market has been on the increase both internationally and locally. In the United States alone, female participation rates in the labour market had rose to 62% in 2004. The same can be witnessed in South Africa as women are accounting for six in ten new labour market entrants and this is said to be on an increase (Mostert, 2009). The South African context has also therefore contributed to this significant increase of women in the labour market. Progressive legislation like the Employment Equity Act (Act No. 55 of 1998) and the Skills Development Act (Act No. 97 of 1998) have made it mandatory for organisations to recruit more women in order to combat inequity in the labour force as well as to provide new opportunities for designated groups, enabling sustainability of the South African population.

The problem with an increasing female workforce has meant an increase in stress levels among female employees as women still have the obligation of managing both work and home life. This work-life balance has placed paramount stress on working women resulting in the deterioration of their general health.

The boundary between work and non-work is permeable and the interaction between occupational stress and general health is influenced by both work and family demands (Brough & O'Driscoll, 2010). In recent decades, this work-life balance challenge is further exacerbated as working women have experienced increasing stress both in their personal and work lives due to the multiple roles they occupy in society (Suk-Kim, Cho, Lee, Marion & Kim, 2005; Griffin-Blake & Liburd, 2006).

Over the years, research (Sieberhagen, Rothman & Pienaar, 2009; Avey, Luthans, & Jensen, 2009; Cheung & Tang, 2009) has found that occupational stress diminishes the quality of good general health. In addition, Code and Langan-Fox (2001) found that jobs with excessive demands and many responsibilities cause occupational stress, which may lead to a high risk of adverse health outcomes.

Of particular interest is the increase of occupational stress of women in higher education institutions, due to an increase in job demands and role expectations (Coetzee & Rothman, 2005). In the past, occupational stresses among staff at universities were seen as minimal as staff enjoyed the autonomy of their careers. However, due to the changing nature of work, higher education institutions also had to undergo change. For universities, this has meant increased red tape, unmanageable workloads, change in conditions of service and lack of administrative support (Earley, 1994). Additionally, Jackson and Hayday (1997) as well as Kinman (1996) have found that lack of opportunities, ineffective communication channels and a rushed pace of work are determinants to an increase in occupational stress.

The problem with occupational stress is further exacerbated when work life balance is at a minimum. A study conducted by Bell, Rajendren and Theiler (2012) has found that perceived occupational stress was associated with poorer work life balance and increased conflict between university academics work and personal lives. This increased occupational stress and reduced work life balance has been known to bring about negative health outcomes. Research (Jones & Hodgson, 1998) has found that stress was the second most frequently reported condition of individuals who disclosed a work-related illness.

In South Africa, research (e.g. Van der Colff & Rothman, 2009; Peltzer, Shisana, Zuma, Van Wyk & Zugu-Dirwayi, 2009) conducted among nurses and teachers have also shown that occupational stress leads to detrimental mental health outcomes. These occupations are largely occupied by female workers who have multiple roles (e.g. child rearing and managing their careers), to fulfil in contemporary society, thus increasing their occupational stress levels (Van der Colff & Rothaman, 2009).

This sample of working women is of particular importance in the South African context due to an increasing female labour force (Casale & Posel, 2002). Moreover, women have entered the labour market, in previously male dominated jobs, and have begun experiencing the numerous job stressors entailed in their occupations, as well as their home life (Casale & Posel, 2002). Women often have to deal with these stressors that are external to their careers, which may also have an effect on the stressors women face at work, like the stress placed on them to balance their work and family life (Casale & Posel, 2002). Thus, South African women are plagued with the dual responsibility of managing both their career and family life.

Therefore, this research focused on working women and the relationship between work life balance occupational stress and general health. However, while occupational stress research in the past has focused on the traditional biomedical model of health outcomes (where focus was on diagnosing weaknesses and illnesses), this study aims to fill the gap in research by focusing on positive psychology (where focus is on individuals positive strengths) to investigate the relationship between work life balance, occupational stress, psychological capital and general health among working women, as positive psychology focuses on what makes life good. This study aimed to determine if psychological capital relates to positive health outcomes in a stressful occupational environment among working women. Further research (Gallanakis, Galanopoulos & Stalikas, 2011) has shown that positive emotions help individuals contend with life challenges, thus leading to better health outcomes. Hence, the present study also aimed to understand whether psychological capital (positive strengths) acts as a mediator between occupational stress and general health, as the development of a better understanding of the problem can help in the construction of interventions.

Moreover, in an attempt to prevent occupational stress and promote general health in the workplace, this study may provide insight on how organisations in South Africa, may create flexible working conditions to accommodate working women, who have to manage both home and work life by focusing exclusively on the emerging field of positive psychology.

## 1.3. Context of the Study

The study took place in a pre-eminent Durban University which places importance on teaching and learning. By international standards, the university is a very large and complex institution, with over 40 000 students spread across five main campuses (UKZN, 2007). The reason a pre-eminent university was chosen as a context for the study was because research (Seldin, 1991) has found that stress levels among staff have risen in the past years and is likely to get worse. There is growing evidence (Winefield, Gillespie, Stough, Dua, Hapuarachci & Boyd, 2003) that universities no longer provide a low stress working environment. Reasons for this high level of stress at universities is provided by Van Zyl and

Buitendach (2004) who found a list of stressors in the education environment, including lack of fit between person and the environment, supervision, time pressures, role conflict and responsibility towards others. Additionally, research (Barkhuizen & Rothman, 2008) has found that individuals who work in a helping profession, especially educators are more likely to experience occupational stress. This stress is likely to become worse due to a poor work life balance, especially among women who are still tasked with the duty to manage the household and work (Mostert, 2009).

Thus, this research chose female staff from universities as a study sample, since women are more prone to occupational stress as a result of managing work-life balance. Additionally, very little research (Ablanendo-Rosas, Blevnis, Gao, Teng & White, 2011) has investigated the stress levels among the different types of female staff at the university. Thus, the present study aimed to fill the gap in research by investigating occupational stress levels among cleaning staff, administrative staff, management and academic staff.

## 1.4. Problem Statement

In recent times, working women at universities have been experiencing increasing occupational stress due to the changing context of work (Seldin, 1991). This occupational stress has been worsened by a poor work life balance of working women. Woking women are still placed in a position to balance their work and home life despite 21<sup>st</sup> century changes in gender role expectations of men and women. As a result of a poor work life balance and increased occupational stress, negative health outcomes may arise among working women. This decline in health places a burden on the universities as women may become less productive, endangering the well-being of universities. However, working women with a high psychological capital may alleviate the effects of poor work life balance and occupational

stress on general health. However, very few studies have sought the importance of psychological capital and alleviating occupational stress and poor work-life balance to enhance general health. Thus, this study sought to understand the relationships between work life balance, occupational stress, psychological capital and general health among working women at universities. Hence, the study attempted to be of benefit to the university as it provided them with necessary research that they required to overcome the stressors at universities.

## **Research Aims and Objectives**

The specific aims of the study are:

- 1. To examine the relationship between occupational stress, psychological capital and general health among working women.
- 2. To investigate whether psychological capital mediates the relationship between occupational stress and general health among working women.

Therefore, the study aims to answer the following research questions:

- 1. How has work-life balance, occupational stress, psychological capital and general health among working women been conceptualised in the literature?
- 2. What is the relationship between work-life balance, occupational stress, psychological capital and general health among working women?
- 3. Does psychological capital mediate the relationship between occupational stress and general health among working women?

In order to answer the above mentioned research questions, the research objectives of the study were:

1. To determine how work-life balance, occupational stress, psychological capital and

general health have been conceptualised in the literature among working women.

2. To determine the relationship between work-life balance, occupational stress,

psychological capital and general health among working women.

3. To determine whether psychological capital mediates the relationship between

occupational stress and general health among working women.

1.5 Structure of the study

**CHAPTER ONE: INTRODUCTION** 

This chapter offers an introduction of the research topic by providing a discussion on the

background, motivation and context of the study. It also discusses the research questions and

objectives that the study aimed to address. In addition, it provides a breakdown of the

chapters of the study, specifically outlining what each chapter entails.

**CHAPTER TWO: LITERATURE REVIEW** 

This chapter discusses the four main constructs of the study, namely work-life balance,

occupational stress, psychological capital and general health. It provides a review of existing

literature in the broad area of positive psychology, as well as the four constructs of the study.

In addition, it discusses the two theoretical frameworks used in analysing the four main

constructs, namely the Broaden and Build Theory of positive emotions (1998) and The Self

Determination Theory (2011).

**CHAPTER THREE: METHODOLOGY** 

This chapter outlines the research method used in carrying out the study. This includes an

explanation of the research design, sample and sampling method, the research instruments

used and the ethical considerations of the study. In addition, the specific procedure used in

conducting the research was discussed. This was followed by a discussion of the statistical

methods used in analysing the research data.

**CHAPTER FOUR: RESULTS** 

This chapter provides the results of the statistical analyses conducted on the data. Both

descriptive and inferential statistics are provided. The results of exploratory factor analysis

conducted on the measures used in this study will be outlined in this chapter. Additionally,

descriptive statistics and the inter-item reliability Cronbach alpha coefficients for each of the

measures will be reported. The results of Pearson product-moment correlation which is used

to determine the relationships between variables will be shown. Multiple regression analysis

will also be displayed. Lastly, to assess for mediation, the process developed by Hayes

(2009) will be presented.

CHAPTER FIVE: DISCUSSION

This chapter outlines the results obtained from the research study, by determining how it

answers the research questions proposed. A discussion is also provided of the current study in

relation to previous research finding in the literature review.

CHAPTER 6: CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS

This chapter outlines the conclusions that can be drawn from the findings of the study. It also

reflects on the limitations of the study as well as provides recommendations for organisations

and further research.

## 1.6 Chapter Summary

This chapter offered an introduction of the topic of the study by providing a discussion on the background and context of the study. It also provided a discussion of the aims, research questions and objectives that the study aimed to address. The main objective of the study was to determine the relationship between work-life balance, occupational stress, psychological capital and general health among working women. Moreover, the study attempted to determine whether psychological capital mediates the relationship between occupational stress and general health. This chapter also provided a breakdown of the study's chapters, specifically outlining the premise of each chapter. The next chapter provides a review of the existing literature in the area of positive psychology, as well as previous research on work-life balance, occupational stress, psychological capital and general health. The chapter also provides a discussion of the theoretical frameworks used in the study.

### **CHAPTER TWO**

### REVIEW OF LITERATURE

#### 2.1 Introduction

This chapter defines the four main constructs of the study. It also reviews the existing literature in the area of positive psychology, as well as the literature on the four main constructs of work-life balance, occupational stress, psychological capital and general health. In addition, it discusses the theoretical frameworks used in studying these relationships, namely the Broaden and Build Theory of positive emotions (Fredrickson, 1998, 2001, 2003) and The Self Determination Theory (Deci & Ryan, 2000). The chapter begins with an introduction to positive psychology

## 2.2 Positive Psychology

Positive psychology, a recent branch of psychology, which focuses on the aspects of the human condition that lead to fulfilment, meaning and purpose, was first introduced by Seligman and Csikszentmihalyi (2000).

"The field of positive psychology arose as a critique of the traditional biomedical approach to health outcomes, where focus was on pathology, weakness and damage to a focus on individual strengths and how they can produce positive health outcomes" (Seligman & Csikszentmihalyi, 2000). Moreover, while the traditional biomedical model focused on the treatment of illnesses, positive psychology focused on the importance of prevention. (Luthans, Luthans & Luthans, 2004). Furthermore, Seligman and Csikszentmihalyi (2000, p. 7) state that treatment is not merely about "fixing what is wrong with an individual, but also nurturing what is best in an individual". Hence, psychology is not only concerned with damages and weaknesses, but also with strengths and virtues (Luthans et al., 2004). However,

while positive psychology arose as a critique of the traditional biomedical model, "it does not seek to deny the importance of studying how things go wrong, but rather to emphasize the importance of using the scientific method to determine how things go right" (Fredrickson, 2001). Therefore, health from within this positive psychology paradigm, is not only concerned with the treatment of illnesses and absence of diseases, but is also concerned with the holistic individual-the biological, emotional and social components of an individual's health (Donohue, 2004). This is in contrast to the biomedical model which focuses on the mere biological aspect of health. However, the positive psychology paradigm is concerned with the holistic individual and therefore provides a more appropriate and holistic understanding of the whole individual, not merely the 'biological' individual.

Positive organisational behaviour "(POB), takes positive psychology to the workplace". Specifically, POB, is defined as the "study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace" (Luthans & Youssef, 2007 p. 59). Hence, positively oriented human strengths (such as hope, optimism, self-efficacy and resilience) may be deployed to assist managing occupational stressors, leading to an increase in the quality of general health.

Research (Luthans & Kyle, 2001) has found that there is a strong correlation between general health and positive individual strengths like optimism and hope. Research (Taylor et al., 2000) has also found that optimistic individuals are more likely to practice habits that enhance general health. In addition, a study conducted by Luthans and Kyle (2001) has also shown that optimistic individuals with illnesses survive longer than individuals without optimism. Furthermore, research (Cheung, Tang & Tang, 2011) has shown that these positive individual strengths help employers manage stress at the workplace, leading to an increase in positive health outcomes. Studies (Cheung & Tang, 2007; Cheung & Tang, 2009) have also

shown that these positive strengths act as a mediator between occupational stress and general health.

In relation to the present study, if these positive experiences are fostered in working women who experience occupational stress, then there is a strong likelihood that this will result in an increase in good general health. The positive psychology paradigm relates to the present study as it implies that if working women possess these positive individual strengths, they will better be able to balance work and life, preventing occupational stress and lead to positive general health outcomes.

### 2.3 Work-Life Balance

For the purposes of this study, "work-life balance is defined as the satisfactory level of involvement or fit between the multiple roles in a person's life" (Hudson, 2005). Greenhaus and Beutell (1985) states that a work-life imbalance occurs due to three core reasons: (1) "the time devoted to the requirements of one role makes it difficult to fulfil requirements of another role; (2) strain from the participation in one role makes it difficult to fulfil the requirements of another; (3) and specific behaviours required by one role make it difficult to fulfil the requirements of another". Thus, to achieve work-life balance then, requires women to have time balance (allowing for equal time for both work and life roles), involvement balance (allowing equal levels of psychological involvement in both work and life roles) and satisfaction balance (feeling equal levels of satisfaction in both work and life roles) (Whitehead & Kotze, 2003). Thus, to achieve this time balance, involvement balance and satisfaction within a university setting would mean permitting more high level personal flexibility and personal control among university staff members. This has been shown to reduce work life balance and increase well-being (Anderson, Coffey & Byerley, 2002).

Existing literature on the topic of work life balance is very broad and characterises work-life balance as multifaceted and consisting of a number of features such as: the time spent at work, the volume of work, organisational expectations, caring responsibilities and hobbies (Perrons, 2003; Watts, 2009). Moreover, the issue of work-life balance is increasingly connected to caring responsibilities not only for children, but also for older family members with the expectation that it will be women who adapt work to accommodate for these responsibilities (Watts, 2007). Watts (2009) further states that the psychological impact of juggling working and caring roles is often stressful and may lead to negative health outcomes like depression. Studies (Mostert, Rothman, Mostert & Nell, 2008; Lakshmi & Kumar, 2011) have supported the idea that an inability to imbalance the two spheres (work and life) has led to severe health outcomes. A study conducted by Davidson and Cooper (1984) has found that female managers are susceptible to sleep troubles and tend to be heavier smokers than male managers due to the increasing stress they experience both at the home and at the workplace. Thus, while it is generally accepted that the home is a place where individuals seek comfort to relax from the pressures of working life, the home does not become a heavenly place in which a woman can rest as ironically the home becomes an additional place of work (Lakshmi & Kumar, 2011).

This escalating pressure to balance work life and occupational stress can also be seen at tertiary institutions, yet few studies have attempted to examine university staff members ability to balance work and life and overcome work-life imbalance (Bell, Rajendran & Theiler, 2012). Bell, Rajendran and Theiler (2012) report that one of the main reasons for increasing work life problems for employees is the ever increasing stress of jobs in the modern world. The researchers found that perceived job stress was associated with poorer work-life balance and increased conflict between academics work and personal lives (Bell, Rajendran & Theiler, 2012) Additionally, a study conducted by Fouad and Carter (1992)

found that women entering academia face situations that demand that they become assertive and put their careers first. Such stressors as well as poor work-life balance can be highly stressful for the new university employee (Fouad & Carter, 1992).

Furthermore, it was also found that younger professional experienced more stress than older professionals due to the demands required in establishing one's self in a chosen career at an earlier life stage than a later stage (Gadzella, Ginther, Tomcala & Bryant, 1990). This stress is further exacerbated at this earlier life stage as it is these women who have to balance their professional careers and personal life (Gadzella et al., 1990). Mintz (1992) notes that the stress of obtaining tenure in one's career runs counter to raising young families, yet these life stages occurs simultaneously. Lakshmi and Kumar (2011) reinforces this belief as they propose that the early career is particularly conflictual for women who have to contend with strong pressures to establish themselves at work as well as manage family demands produced by spouse and/or children. This is supported by Davidson and Cooper (1984) who found that compared to men managers, women managers reported significantly higher stress scores in respect to career and spouse/partner conflicts, career/home conflicts and career and marriage/child conflicts. However, in contrast, finding time to balance work and life has been identified as a major concern for female academic staff at all career stages (Bell et al., 2012).

Research conducted by Whitehead and Kotze (2003) has also found that work-life imbalance is further exacerbated due to a woman's conflicting career goals. The study established that the hard-driving successful female employee is most susceptible to stress between work and family as career success alone requires extensive time and commitment (Whitehead & Kotze, 2003).

In order to overcome these work-life conflicts, Sree and Jyothi (2012) has found that support from significant others can significantly reduce work-life conflicts. Sree and Jyothi (2012) have identified the "facilitating husband" as the in key helping women manage their conflicting roles (p. 78). The facilitating husband provides assistance and support to the working women, easing the pressures she may experience in her work and life. However, in contrast, working women whose husbands are highly involved in their own careers experience increasing difficulty in balancing their home and work demands, increasing occupational stress, resulting in detrimental health outcomes (Sree & Jyothi, 2012) Thus, support from others is important in helping reduce poor work-life balance and stress.

Additionally, within a university setting, Sorcinelli (1994) reported that while mentoring programs for university staff were often lacking, women reported feelings of isolation and a greater desire for support and guidance. Additionally, a study conducted by Nasurdin and O'Driscoll (2012) on female academics found that emotional support is likely to reduce negative work life balance. When females receive help to balance work and life such as managing household chores and caring responsibilities, stress will be at a minimum, which in turn will lead to positive work life balance (Nasurdin & O'Driscoll).

Furthermore, Lakshmi and Kumar (2011) have found that a good work-life balance reduces stress and leads to positive health outcomes which in turn build women's self-esteem and morale both at the workplace and at home. However, failure to achieve work-life balance leads to depression and a working woman may lose her self image at work and home resulting in a sense of alienation (Lakshmi and Kumar, 2011). Research (Lyness & Judiesche, 2008) has also "found that managers who were rated higher in work-life balance were rated higher in career advancement potential than were managers who were rated lower in work-life balance. Thus, it is possible that more competent managers are better at handling

the demands of multiple roles, including both work and non-work activities and thus are perceived as both more balanced and more likely to advance" (Lyness & Judiesche, 2008).

While it may be seen as ideal for women to effectively balance work and home life, research (e.g. Watts, 2007; Carlson, Ferguson, Hunter, Grzywacs, Clinch & Arcury, 2011) has shown that this is often difficult due to the challenges of the 21<sup>st</sup> century workplace. In fact, Mauno, Kinnunen and Ruokolaine (2006) argue that work life conflict is unavoidable in contemporary society. Van Emmerick (2002) suggests that in the last 15 years work demands has been constantly rising within tertiary institutions as well as in academia globally. This may be problematic as increasing poor work life balance and occupational stress may be causing universities to not function as well as in the past (Bell et al., 2012).

There have been many reasons for this increase in work life balance and occupational stress among staff at universities which includes reductions in funding from the government, international and domestic competition, increased focus on research and teaching, increased student numbers as well as technological developments (Briggs, 2009; Churchman, 2006). As a result, university staff members, especially academics are expected to occupy multiple roles at universities, increasing poor work life balance and occupational stress (Bell et al., 2012).

Furthermore, work life balance and occupational stress have been widely linked with detrimental effects on employees' physical and psychological health among tertiary institutions, especially among academics (Kinman and Jones, 2003). Gillespie, Walsh and Winefield (2001) have found a high rate of health problems among academics due to work related stressors. "This is supported by Dua (1994) who found that a high level of work related occupational stress among Australian academics is linked to psychological distress and anxiety".

Nasurdin and O'Driscoll (2012) postulate that to reduce negative work life balance in among female staff at universities, tertiary institutions should start addressing work overload. It is important that tertiary institutions provide useful mechanisms for female staff to cope with their work demands. Nasurdin and O'Driscoll (2012) further state that it is essential that tertiary institutions create policies and programs to help academic staff manage work and life as this will demonstrate that tertiary institutions are committed to managing work life balance in order to bring about positive health outcomes.

Societal expectations should also be dealt with as they have placed increasing stress on women to achieve a satisfactory work-life balance. For example, society has become obsessed with the 'token women'- the female ideal (Lakshmi & Kumar, 2011). This female ideal is expected to be a hard-driving career woman who can effectively balance her home and work life. Failure to achieve such standards is often considered incompetent (Lakshmi & Kumar, 2011). As a result, many working women have to adhere to such unrealistic standards with increased experience of stress, both at the workplace and at home (Jyothi & Jyothi, 2012).

A study by Cowan & Bochantin (2005) conducted among female police officers has shown that male-dominated, masculine occupations lead to an increase of occupational stress, especially among working mothers who have to manage both work and home life. The study (Cowan & Bochantin, 2005, p. 23) also established that working mothers in male dominated occupations, experience hostility and discrimination as they are viewed as being "less rational, less logical, more emotional, unlikely to do their job well, and incapable of taking charge or managing violent crisis situations". As a result, many working mothers tried to compensate for this by working harder, increasing the stressors they experience at work (Cowan & Bochantin, 2005). This in turn created role overload as working women attempt to balance their work and family life (Cowan & Bochantin, 2005). Research (Watts, 2007) also

shows that the psychological impact of managing both working and caring roles is stressful and may lead to negative health outcomes such as depression. These findings suggest that despite the changes in culture and tradition, as a result of the 21<sup>st</sup> century context, there are still significant tensions between work-life balance and career achievement of working women, which may consequently lead to negative health outcomes (Waumsley & Houston, 2009).

While research has focused on the influence of work-life balance and its relation to occupational stress and general health, a gap exists in the literature as very few studies have explored the effect of psychological capital as a mediator between occupational stress and health. This is because the field of positive psychology and the construct of psychological capital are fairly recent (Luthans et al., 2004). Hence, this present study aims to add value by focusing on the core constructs (hope, resilience, self-efficacy and optimism) of psychological capital and the role they play in reducing negative health outcomes. Furthermore, positive psychology locates power within an individual. Hence, if women perceive a discrepancy between their work – life balance, positive psychology argues that they will have the internal power to bring about change to produce better health outcomes. Thus, from this standpoint, the individual, or in this case, the working woman is regarded as the agent of change. Hence, if working women desire to reduce occupational stress; they must possess positive internal strengths to balance their work and home life to produce better health outcomes. Therefore, if this work life balance is reached, then occupational stress will be at a minimum. This claim can be supported by various studies (Sree & Jyothi, 2012, Netemeyer, McMurrian & Boles, 1996, Whithead & Kotze, 2003) which have confirmed that if work life balance is maintained, occupational stress will be at a minimum as individuals will have better management of their time.

## 2.4 Occupational stress

According to Folkman and Lazarus (1984, p. 19) stress is defined as a "misfit between an individual and the environment that is appraised by the individual as taxing or exceeding his or her capabilities and endangering his or her well-being". Thus, stress emerges when individuals exceed their abilities and resources to cope with the stressors.

"Contemporary views on stress require researchers to think of stress as a result of a transaction between the individual and the environment (Mostert, Rothmann, Mostert & Nell., 2008). The term 'transaction' implies that stress is neither in the person or the environment but in the relationship between the two" (Mostert et al., 2008).

Occupational stress can be conceptualised as the response an employee may have when presented with occupational stress and pressures that are not matched with their ability to manage, thereby threatening well-being. (The World Health Organisation, 2009). Thus, occupational stress is similar to everyday stress; however occupational stress occurs in the scope of one's work environment. In other words, stress occurs as a result of one's working environment and when employees perceive occupational stress to be excessive or unmanageable, it may lead to negative outcomes that are detrimental to one's health (Code et al., 2001). Research (Coetzee & Rothman, 2005) has found that stress is experienced by employees at tertiary institutions due to the negative environment which includes a lack of commitment from the university to its staff members, work overload, lack of information and too much administrative paperwork (Earley, 2004). Thus, according to Lazarus' theory, when university employees perceive that their stressors exceed their ability to cope, it may lead to negative health outcomes.

World Health Organisation (WHO, 2009) has declared occupational stress to be a worldwide epidemic due to the challenges and demands of the 21<sup>st</sup> century workplace. Research (Van

den Broeck, Vansteenkiste, De Witte & Lens, 2008) has found that employees identify work as their most significant source of stress because of "heavy workloads, uncertain job expectations and long hours – characteristics of the 21<sup>st</sup> century workplace (Avey et al., 2009, p.677). Therefore, all of these above characteristics contribute to the experiencing of occupational stress. Thus, these characteristics pose a serious threat to an employee's general health as research (Code & Langan-Fox, 2009; Rodham & Bell, 2002) has found that these characteristics – (heavy workloads, long hours and uncertain job expectations) are directly related to ill health in the workplace (Avey et al., 2009. In a South African study conducted by Nortjie (2007), it was found that high stress levels were experienced by staff members at a tertiary institution due to characteristics of the working environment such as poor salaries, insecurity and negative aspects of their physical work. These negative characteristics can lead to poor health as poor health is often an outcome of stress (Coetzee & Rothman, 2005)." A study by Jones and Hodgson (2009) found that stress was the second most frequently reported condition of individuals who disclosed a work-related illness".

Furthermore, Coon and Mitterer (2007) state that anxiety and depression are also strong indicators of occupational stress. A study (Avey et al., 2009) conducted in America found that at least 20% of payroll goes toward dealing with stress related problems such as anxiety and depression. In the Netherlands, 80% of mental health cases suffered from severe job stress as cited in Mostert, Rothmann, Mostert & Nell (2008). Such statistics provides an indication that stress related illnesses is widespread in the workplace. Moreover The National Institute of Occupational Stress and Health (2002) "states that at least 40% of all employees experience their job as very or extremely stressful and at least 26% feel professionally exhausted due to the heavy workloads involved in their careers". Research (Weistein & Ryan, 2011) has also shown that this inability to manage these heavy workloads and long hours leads to an increase in occupational stress.

Baker et al. (2003) report that job stressors are the most important predictor of health problems, which in turn are related to absenteeism. Furthermore, absenteeism is generally considered to be an important consequence of stress at the organisational level (Mostert et al., 2008). High absenteeism is also associated with a higher intention to leave and subsequent resigning, which ultimately has higher financial implications for the organisation (Mostert et al., 2008). "Thus, an explanation of absenteeism is that absence in the workplace is a reaction to occupational stress, where stress is perceived as a failure to cope with occupational stressors" (Bakker et al., 2003). Hence, occupational stress should not only be considered a problem of the individual, but also a problem for the organisation as the organisation often loses productivity and working days as a result of stress (Mostert et al., 2008).

Blandford (2000) found that the cumulative effect of occupational stress can affect academics performance by decreasing the quality of teaching. This in turn influences student's academic achievement (Blandford, 2000). Additionally, prolonged stress can reduce satisfaction and commitment from university staff members, affecting the productivity at universities (Judge, Thoreson, Bono & Paton, 2001). For example, it was found, in Australia, that psychological stress was the highest and job satisfaction the lowest among junior academics (Winefield et al., 2003). Furthermore, in a study conducted by Catano et al. (2010), it was found that women, in particular, experienced lower satisfaction and commitment and more psychological and physical stressors than men due to the multiple roles that they occupy in society. This is consistent with the findings of Adeoye (2002) who found that the dual roles of wife and mother as well as a lecturer is a major source of stress for women.

Another factor influencing organisational productivity is that of presenteeism which is defined as 'people working sick' (Ruez, 2004). "Presenteeism appears to be a much costlier problem than absenteeism as research (Hemp, 2004; Midonski, 2004; Ruez, 2004) has shown that employees that showed up for work, while suffering pain or depression, were three times

less productive than people with the same conditions who were absent. According to Ruez (2004), the key drivers of presenteeism are occupational stress, employee health and work-life balance". Hence, there is a relation to these findings and the present study that attempted to explore the relationship between work-life balance, occupational stress and general health. Thus, both absenteeism and presenteeism are negative consequences of stress due to occupational stress and deteriorating health and work-life balance. Thus, it is important to explore the relationship between these variables in an attempt to resolve their negative outcomes.

However, occupational stress is not necessarily negative. The World Health Organisation (2009) states that occupational stress is perceived as acceptable by an individual if it functions to keep workers alert, motivated and able to work and learn, depending on capabilities available to them to manage the stressors. Hence, there is a distinction between 'good stress' and 'bad stresses', which are commonly referred to 'eustress' and 'distress' respectively in academic literature (Coon & Mitterer, 2007). Eustress can be defined as the positive feeling of fulfilment that functions to increase an individual's involvement in a particular task, increasing the achievement in overcoming that particular occupational stress (Seyle, 1984). This construct of eustress is of particular importance within the positive psychology paradigm since current research (Luthans et al., 2004; Seligman & Csikszentmihalyi, 2000) has placed value on accentuating the positive strengths of an individual, instead of only focusing on their weaknesses to bring about positive health outcomes. Thus, it is desirable and probably more rewarding if a feeling like eustress can be elicited from individuals when they experience occupational stress.

In contrast, distress is a negative, unhealthy type of feeling likely to result in individuals avoiding their occupational stress, resulting in them not adequately dealing with the stress and its negative outcomes (Seyle, 1984). Research (Okechukwu, Ayadi, Tamers, Sabbath &

Berkaman, 2012) has shown that this avoidance results in prolonged stress which may ultimately lead to negative health outcomes such as anxiety and depression. Furthermore, research (Okechukwu et al., 2012) has found depression to be the most experienced disorder worldwide due to the stressors of the 21<sup>st</sup> century workplace. Additional research (Zimmerman & Katon, 2005; Burton & Conti, 2008) has confirmed this as it found anxiety and depression (indicators of occupational stress) to be the leading causes of sickness-related absence in the workforce, especially amongst working women in lower economic positions. Moreover, research (Griffin-Blake et al., 2006) also indicated that woman in jobs with high demands, little control over their work and limited support to have exhibited a significant decline in their health status. Women who experience high demands from the environment may perceive it difficult to balance work and life, leading to an increase in occupational stress as can be seen within a university setting (Catano et al. 2010., Coetzee & Rothman, 2005).

While most research has focused on the negative aspects of occupational stress, it must be argued that occupational stress is inevitable, thus eliminating occupational stress is not realistic, nor even desired, organisational outcome (Van der Colff & Rothman, 2009; Colligan & Higgins, 2006). Attention then should be on effectively managing occupational stress to produce positive outcomes that are conducive to general health. Therefore, this study took a positive psychology stance to research by focusing on individuals' positive emotional strengths or psychological capital (as it is also known as) to alleviate occupational stress and produce positive health outcomes. The study proposed that the presence of psychological capital will mediate the relationship between occupational stress and general health.

## 2.5 Psychological Capital

"Psychological capital (PsyCap) is largely drawn from the theory and research of positive psychology (Cheung, Tang & Tang, 2011)". The construct of PsyCap was first introduced by Luthans, Luthans and Luthans (2004) who argued that focus should be on people's strengths and how they can grow and thrive in the workplace (Luthans et al., 2004). According to Luthans et al. (2004) PsyCap is an "individual's positive psychological state of development that is characterised by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks, (2) making a positive attribution (optimism) about succeeding now and in the future, (3) persevering toward goals (hope) and when necessary redirecting paths to goals in order to succeed and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success" (p. 3). Hence, PsyCap is concerned with who an individual is and what that individual may become through positive development. Such a concept is relevant in contemporary society, especially in South Africa, where focus is on developing individuals, especially women, by creating a culture of lifelong learning and development (Casale & Posel, 2002). As highlighted above, the construct of PsyCap is characterised by four personal qualities: selfefficacy, optimism, hope, and resilience (Luthans et al., 2011).

Self – efficacy can be defined as the belief that one has the ability to mobilize motivation and resources to carry out a task successfully and effectively (Bandura, 1997). Maddux (2002) states that this belief creates an openness to challenge and willingness to use effort in the pursuit of a successful result. Hence, if working women exhibit high self-efficacy, then this will help them to deal with the challenge of balancing home and work life, reducing occupational stress and producing positive health outcomes.

Secondly, optimism refers to the "positive attributional style of making an internal, stable and global attribution on positive events (e.g. good job performance), while making an external, unstable and specific attribution for negative events (e.g. failure in completing a task)" (Seligman, 1998, p. 352). Hence, optimism is the tendency of an individual to expect the best possible outcome or dwell on the most hopeful aspects of a situation. Moreover, research (Carver & Scheier, 2003) has shown that optimistic individuals are buffered from the unfavourable events of occupational stress, discounting the feelings of guilt, anxiety and depression. Hence, if working women were to be optimistic, then this will prevent them from feeling a sense of guilt and anxiety when trying to manage both home and work life, consequently reducing occupational stress.

Thirdly, hope can be defined as the capability to derive pathways (or planning to achieve those goals) to desired goals and to motivate oneself via agency thinking (or goal-directed determination) in using these pathways (Snyder, 2000). Hence, hope consists of the both a desire to attain goals (e.g. positive health outcomes) and the ability to conceive a strategy (e.g. balancing work and life) for attaining these desired goals.

Lastly, the construct of resilience can be defined as the ability of an individual to overcome setbacks and dilemmas (Masten & Reed, 2002). Such a quality is important in the dynamic 21<sup>st</sup> century as it helps individuals deal with continuous change and increasing stressors (Suk-Kim, et al., 2005). Research (Shuster, 1999) conducted among female fire-fighters has shown that these working women with high levels of resilience often combat the negative effects of occupational stress. Since the occupation is considered life threatening, it may be deemed adaptive for them to display resilient behaviour to be able to overcome the setbacks and dilemmas entailed in their occupation (Shuster, 1999). Hence, if working women are involved in life-threatening or stressful careers but have high levels of resilience, then this may function to alleviate occupational stress.

Research (Cheung, Tang & Tang, 2001) has also shown that these positive characteristics of PsyCap help employers alleviate occupational stress at the workplace, leading to an increase in positive health outcomes. The above study has shown that these positive emotions of PsyCap help employers preserve personal capabilities and provide them with a higher confidence to succeed (self-efficacy), ability to bounce back from failure (resilience), perform their work with optimism and keep their motivation (hope) in their work. Moreover, research (Gallanakis et al., 2011) has shown that PsyCap also moderates the relationship between occupational stress and the experience of negative health outcomes such as anxiety and depression. Thus, PsyCap has the potential to provide an individual with that "added protection needed to help shield one from negative stress symptoms" (Avey et al., 2009, p. 678).

Hence, if working women were to be positive, then this may reduce occupational stress and produce positive health outcomes. Thus, the present research aims to examine whether these positive characteristics function as a mediator or intervenes the relationship between occupational stress and general health to produce better health outcomes.

While psychological capital has been studied previously in South Africa, very little has been conducted within this area. Thus, greater research is therefore required on psychological capital and its effectiveness within the workplace (Rothman & Cilliers, 2007). Additionally, more research is required between work-life balance, occupational stress, psychological capital and health as no previous study could be ascertained on this.

## 2.6 General Health

The World Health Organisation (2009) defines health as a complete state of physical, mental and social well-being. Therefore, it can be seen that good health is not merely an absence of diseases, but rather a collection of components. Hence, in order for an individual to be

deemed healthy, health must be experienced in all the above mentioned levels. Since positive psychology is not merely concerned with treating illnesses like the traditional biomedical model, it can be seen as a more appropriate model for treating health, as it focuses on the holistic individual- the biological, emotional and social components of an individual's health (Donohue, 2004). Research (Sieberhagen, Rothman, & Pienaar, 2009) has shown that the positive strengths of optimism and resilience (emotional component of health outcomes) lead to satisfaction and good general health in the workplace. Therefore, if working women were to be satisfied at work due to positive strengths, then they will be able to alleviate occupational stress to bring about positive health outcomes such preventing the conflict between their work-life balance, consequently creating an internal sense of happiness. (Weinstein & Ryan, 2011).

Research (Burke, 2002; Subramaniam, 2011) has also shown that organisations (social component of health outcomes) can play an active role in promoting flexible conditions that are conducive to facilitate positive health outcomes and positive individual strengths on the job. Research (Brough & O'Driscoll, 2010) has shown that organisational interventions (e.g. onsite childcare, dry cleaning services and health facilities) and workplace flexibility (e.g. flexible working hours), plays a key role in reducing occupational stress and promoting health at the workplace. The study also found that these positive organisational interventions and workplace flexibility enhance positive strengths such as autonomy, or the ability to control one's own life, which consequently lead to a decrease in the experience of occupational stress (Brough & O'Driscoll, 2010).

In contrast, women with little control over work conditions, high occupational demands and limited organisational support, which is typical of most blue collar occupations, have exhibited a significant decline in their health status as a result of occupational stress (Griffin-Blake et al., 2006). This is supported by Hechter, Schronwetter and Menges (1997) who

found that university staff who perceive a high amount of control over their occupations experience less stress than those with low control over their occupations.

Further research (Van der Colff & Rothman, 2005) has shown that a large segment of blue collar jobs, including janitors and cleaners, maids and cashiers, which are predominantly occupied by female workers, have been linked to occupational stress and negative health outcomes such as musculoskeletal disorders due to the stressors of their jobs. These stressors are further exacerbated when these working women have to return home to manage the household chores (cooking and cleaning) as well as care for children and the elderly (Watts, 2007).

Additionally, academic research has often supported the idea that women experience more occupational stressors than men (Hogan, Carlson & Dua, 2002). According to Thomas and Davies (2002), women usually take on a larger share of teaching and student-related duties than men who normally take on research and administrative duties. Such differences in working roles has an impact on stress outcomes as tasks associated with more demanding emotional labour are more likely to increase perceptions of ill-health and negative work-life balance (Pugliesi, 1999). Moreover, a woman's emotional labour is further increased due to the role of care-taker of the home, increasing her perceptions of stress and ill-health.

While there is a vast literature on the effects of occupational stress on health, very little has been examined on the relationship between occupational stress, positive individual strengths (psychological capital) and health.

### 2.7 Theoretical Framework

The Broaden-and-Build Theory of Positive Emotions (Fredrickson, 1998, 2001, 2003) and The Self Determination Theory (Deci & Ryan, 2000) was used to guide research on the

relationship between, occupational stress, psychological capital and health among working women.

The Broaden-and-Build Theory (2003) states that positive emotions (e.g. hope, resilience, optimism) broaden an individual's awareness, consequently encouraging novel, varied and exploratory experiences. Hence, positive emotions trigger upward spirals towards enhanced emotional well-being (Fredrickson, 2001). These positive emotions not only make individuals feel good in the present, but they also increase the likelihood that one will feel good in the future (Avey et al., 2009). "Unlike negative emotions which narrow peoples' thought action repertoires, positive emotions broaden peoples' thought action repertoires, encouraging them to discover novel lines of thought and action" (Fredrickson, 2001, p. 220).

"Hence, positive emotions help broaden individuals' attention and cognitive skills, enabling flexibility and creative thinking (Fredrickson, 2003). Moreover, unlike negative emotions which prompt narrow, immediate survival-oriented behaviours, positive emotions do not have any immediate survival value, because they take one's mind of immediate needs and stressors (Fredrickson, 2003). Over time, the skills and resources built by broadening behaviour enhance survival". For example, while negative emotions experienced during life-threatening situations narrow an individual's thought-action repertoires, positive emotions present new possibilities, providing the individual with a wider range of thoughts and actions to choose from, thus broadening and building their mental capacity (Fredrickson, 2003).

The Broaden-and-Build Theory of positive emotions relates to the study sample because if working women possess these positive emotions, then according to the theory, this helps broaden working women's mental capacity to address occupational stress and bring about the positive experience of health. Thus, the negative experience of occupational stress can be better managed due to an increase in flexible and creative thinking. For example, working

women may find flexible working conditions (like working at home) to accommodate for work-life balance. In addition, working women may view work as a positive experience as it provides them with capabilities which are needed to manage the household and care for children. Thus, such positive experiences may then alleviate the experience of occupational stress and bring about positive health outcomes.

The Self Determination Theory (Deci & Ryan, 2000) also provides insight on how positive strengths play a key role in alleviating occupational stress. The theory states that in order for individuals to develop optimally, they are required to possess three positive strengths which are conceptualised as basic psychological needs in the literature (Deci & Ryan, 2000). These psychological needs are competence, or the perception that one is capable of influencing the environment in desirable ways, relatedness, or the psychological feeling of cohesion and connectedness, and autonomy, or the ability to effectively control one's own life and environment (Deci & Ryan, 2000).

Furthermore, the theory states that satisfaction of these needs can be supported or obstructed within social and working environments (Deci & Ryan, 2000). A study conducted by Subramaniam (2011) has shown that workplace flexibility, which allows working women a certain degree of freedom (autonomy) in deciding how the work will be done and how they will coordinate their own schedules (competence) with support from other employees (relatedness) plays a key role in reducing occupational stress and promoting positive health outcomes. Hence, the theory shows that the constructs of autonomy, relatedness, competence and support from the work environment, enhance the experience of positive health outcomes whereas obstructing these needs leads to ill-being and the experience of negative health outcomes (Deci & Ryan, 2000). This theory relates to the sample of working women, because if women possess positive strengths such as autonomy, relatedness, competence and support

at the workplace, then this will function to keep working women satisfied, reducing their occupational stress and improving their general health outcomes.

Since the field of positive psychology is fairly recent, very few studies have been conducted on the influence of positive emotions as a mediator between occupational stress and health. However, the few studies (Avey et al., 2009; Galanakis, 2011) that have been conducted provide support that positive emotions play a key role in effectively reducing the negative experience of occupational stress to bring about positive health outcomes in the workplace. Hence, the present study aims to examine the relationship between occupational stress, psychological capital and general health among working women.

# 2.8 Chapter Summary

This chapter defined the four major constructs of the study, namely work-life balance, occupational stress, psychological capital (including its four components: hope, optimism, self-efficacy and resilience) and general health. This chapter also provided a discussion of the field of positive psychology as well as a review of literature of the four constructs. This included a discussion of the previous research findings of the various constructs. This was followed by a discussion of the two theoretical frameworks used for analysing the various constructs, namely the Broaden and Build Theory of positive emotions (1998) and the Self-Determination Theory (2011). A motivation was also provided for the use of these theoretical frameworks. These theoretical frameworks are used to explain the relationships among the four constructs: work-life balance, occupational stress, psychological capital and general health.

### **CHAPTER THREE**

### **METHODOLOGY**

## 3.1. Introduction

In this chapter the research method used in carrying out the study is discussed. This includes an explanation of the research design, sample, sampling method, the research instruments used and the ethical considerations of the study (It must be noted from the outset that full ethical clearance has been obtained for this study). In addition, the specific procedure used in conducting the research will be discussed. This is followed by a discussion of the statistical methods used for the purpose of analysing the research data.

# 3.2. Research Methodology

# 3.2.1 Research design

Data was assessed using quantitative methods as the purpose of the study was to identify key relationships. A quantitative study can be defined as an "organised method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity" (Neuman, 2006, p. 96). Thus, quantitative methods have been favoured in the past due to the belief in the positivist research paradigm as it places strong emphasis on scientific and empirical methods of data collection and analysis through the use of statistical methods (Durrheim & Painter, 2006). Additionally, there is a widespread belief in the objectivity and generalisability of variables (Durrheim & Painter, 2006). Adopting a quantitative approach to research, a cross sectional survey design was used for the purposes

of the study. A cross sectional research design is used when information about the constructs represents what is going on in one point in time (Neuman, 2006).

## 3.2.2. Sampling method

A sample can be defined as a small set of cases a researcher selects from a large pool and generalises to the population (Neuman, 2006). There are two broad types of sampling, namely probability sampling and non-probability sampling. Probability sampling aims to create an accurate representation of the sample while non-probability sampling represents a less accurate representation of the sample (Neuman, 2006) For the purposes of this research, non-probability convenience sampling was used to select participants. Convenience sampling was used as it was convenient to reach participants efficiently. Therefore, this sampling was the most appropriate sampling technique to use as participants could be accessed quite easily. It also saved time and money as the entire population did not need to be surveyed. The researcher carried out convenience sampling as follows: Once key gatekeepers were identified, questionnaires were distributed to the gatekeepers to contact the different groups of working women at the university, namely: cleaning staff, administration staff, and academic staff. The gatekeepers (the respective managers of the different subtypes of working women) distributed questionnaires to the respective staff conveniently. A total of 160 questionnaires were distributed among the different subtypes of working women and only 102 were returned.

It must be noted that the study did not differentiate between contract and permanent employees and this could have been a limitation to the study as contract workers may have experienced work life balance and occupational stress differently than permanent employees. Additionally, it can be stated that permanent employees may have increased occupational stress since they may work longer hours and have more responsibilities than contract employees.

# 3.2.3. Participants

# **Participant Characteristics**

The demographic characteristics of the participants can be viewed in table 1 below:

Table 1

Characteristics of the participants

Characteristic	Frequency	N	Percentage
	Age		
20-30	21	102	20.6
31-40	33	102	32.4
41-50	30	102	29.4
51-61+	18	102	17.6
	Marital Status	3	
Single	49	102	48
Married	41	102	40.2
Previously	12	102	11.7
married			
	Citizenship		
South African	95	102	93.1
International	7	102	6.9
	Race		
Black	61	102	60.4
Coloured	4	102	4
Indian	18	102	17.8
White	18	102	17.8
	Working position	held	
Cleaning staff	38	102	37.3
Administrative	38	102	37.3
staff			
Academic staff	26	102	25.5

Table 1 Continued

Characteristic	Frequency	N	Percentage
	Highest qualification	n obtained	
Grades 8-11	32	102	31.4
Matric	20	102	19.6
Bachelor's	8	102	7.8
Degree			
Honours	7	102	6.9
Masters	15	102	14.7
PHD	12	102	11.8
Other	8	102	7.8
	Level of income pe		
Less than	37	102	36.3
R2500	2	100	2
R3000-R5000	2	102	2
R6000-R10000	14	102	13.7
R11000-R15000	15	102	14.7
R16000-R20000	18	102	17.6
R21000-R30000	11	102	10.8
R31000 +	5	102	4.9
	Number of chil		
None	23	102	22.5
1	20	102	19.6
2	38	102	37.3
3	16	102	15.7
3+	5	102	4.9
Numb	er of years working fo	r the organisation	on
0-1	14	102	13.7
2-5	40	102	39.2
2-10	15	102	14.7
11-15	16	102	15.7
15-20	7	102	6.9
20+	10	102	9.8

The participants in this study consisted of 102 female staff from the university. Most of the participants belonged to the 31 -40 years age group (32.4%), while the least number belonged to the 51-61+ years age group (17.6%). This indicates that the participants were relatively young. In relation to marital status, most of the participants were single (48.0%) while very few were previously married. Most of the participants were South African (93.1%) while only 7% were international. In terms of racial distribution, participants were predominantly

Black (61%), followed by a smaller number of Whites and Indians who contributed 17.8% each, then coloured participants who contributed a smaller 4.0% of the sample. In terms of working position held, most participants were cleaning and administration staff who contributed 37.3% of the sample each. Academic staff only contributed 25.5% of the sample. In terms of highest qualification obtained, a majority of the participants obtained a lower qualification: grades 8-11 (31.4%), and Matric (19.6%). This was due to the fact that a large number of participants came from the cleaning and administrative group, while a fewer came from the academic group. Regarding level of income, most participants receive an income of less than R2500 (36.3%), while only 4.9% of the sample earned R31000 and more. Most of the participants had 2 children each (37.3%), while very few had more than 3 children (4.9%). In terms of number of years working for the organisation, majority had worked for the organisation between 2-5 years (39.2%). There was a relatively fewer number of experienced staff with experience between 15-20 years (6.9%) and 20+ years (9.8%).

## 3.3. Measuring instruments

Data was collected using five instruments. Firstly, a biographical data sheet was used in order to gain personal information on the participants. Thereafter, four other questionnaires were used, namely, the Survey Work-Home Interaction Scale (SWING) (Geurts et al., 2007), the Job Stress Scale (Parker & DeCotiis, 1983), the Psychological Capital Questionnaire (Luthans, Youssef & Avolio, 2007) and the General Health Questionnaire-12 (Goldberg & Williams, 1988).

The biographical data sheet has been designed to obtain information regarding the demographic characteristics of the participants. Information that was sought included: age, marital status, citizenship, working position held, highest qualification obtained, level of income, number of children and number of years working for the university.

## 3.3.1 The Survey Work-Home Interaction Scale

The SWING was developed by Geurts et al. (2007) and contains 27 items on a 6 point Likert scale with response options: 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree. The scale consists of 4 subscales: (1) Negative work home interaction (WHI) defined as negative load reactions developed at work that impede functioning at home (items 1-9); (2) Negative home-work interaction (HWI) defined as negative load reactions developed at home that impede functioning at work (items 10-15); (3) Positive work-home interaction defined as positive load reactions developed at work that facilitate functioning at home (items 16-21); and (4) Positive home-work interaction defined as positive load reactioning at work (items 22-27).

Example items of subscale negative WHI include: "you are irritable at home because your work is demanding" and "you do not fully enjoy the company of your spouse/ family/friends because you worry about work". Example items of subscale negative HWI interaction include: "the situation at home makes you so irritable that you take your frustrations out on your colleagues" and "you do not fully enjoy your work because you worry about your home situation". Example items of subscale positive WHI include: "you come home cheerfully after a successful day at work, positively affecting the atmosphere at home" and "after a pleasant working day/working week, you feel more in the mood to engage in activities with your spouse/family/friends". Example items of subscale positive HWI include "after spending time with your spouse/family/ friends, you go to work in a good mood, positively affecting the atmosphere at work" and "you have greater self-confidence at work because you have your home-life well organised." (Geurts et al., 2007).

The scale was chosen as it measures both positive and negative experiences of work-home interaction (WHI) and hone-work interaction (HWI). This is important considering the lack of research conducted on the positive experiences of WHI and HWI. Thus, the scale is suited to the present study as the scale is consistent with the positive psychology framework that the study is situated in. The scale has also been shown to have high internal consistency. Geurts et al. (2007) have found Cronbach's alpha coefficients of 0.84 for negative WHI, 0.75 for negative HWI, 0.75 for positive WHI and 0.81 for positive HWI. In a South African study conducted by Mostert (2009), which focused on the negative HWI and negative WHI, has found Cronbach's alpha coefficients of 0.76 and 0.86 respectively. Pieterse and Mostert (2005) obtained the following Cronbach's alpha coefficients for the SWING: 0.87 for negative WHI, 0.79 for negative HWI, 0.79 for positive WHI and 0.76 for positive HWI. Rost and Mostert (2007) also obtained reliable Cronbach's coefficients for the SWING: 0.86 for negative WHI, 0.71 for negative HWI, 0.77 for positive WHI and 0.79 for positive HWI. Thus, the scale has been shown to be reliable and valid in the South African context.

## 3.3.2. Job Stress Scale

The Job Stress scale was developed by Parker and DeCotiis (1983) and includes 13 items on a 6-point Likert scale with the response options: 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree. The scale consists of two subscales: time stress (8 items); example item "working here makes it difficult to spend time with my family and job related anxiety (5 items); example item "I have felt fidgety or nervous as a result of my job" (Parker & DeCotiis, 1983).

This scale was used as it is applicable to the South African sample of working women as it measures time stress and anxiety - common problems affecting working women as they attempt to balance work and life as a result of the challenges of contemporary society.

Research conducted in South Africa by Van der Colff and Rothmann (2005) confirms this point as it has found working women, in jobs with high demands and little control over their work have demonstrated an inability to manage their time effectively due to the multiple roles they occupy in society, thus increasing their anxiety levels. This scale was also used as it was found both valid and reliable. Parker and Decotiis (1983) reported Cronbach's alpha coefficients: Time stress ( $\alpha = 0.86$ ) and Job-related anxiety ( $\alpha = 0.74$ ). Almendra (2010) determined a Cronbach's alpha coefficient of 0.91 for the total scale and alpha values of 0.86 for the Time Stress subscale and 0.74 for the Job-related anxiety subscale.

## 3.3.3 Psychological Capital Questionnaire

Psychological Capital Questionnaire (PCQ) was developed by Luthans, Youssef and Avolio (2007) and comprises 4 subscales, namely hope, optimism, self-efficacy and resilience. The four subscales of psychological capital were originally defined by Snyder et al. (1996) who defined hope; Scheier and Carver (1985) who defined optimism; Parker (1998) who defined self –efficacy and Block and Kremen (1996) who defined resilience. The questionnaire has 24 test items and each subscale consists of 6 items anchored on a 6 point Likert scale, with the response options: 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree. Examples of the subscale hope (Snyder, 2000) include "at the present time, I am energetically pursuing my goals and "if I should find myself in a jam, I could think of many ways to get out of it". Examples of the subscale optimism (Scheier & Carver, 1985) include "I am optimistic about what will happen to me in the future as it pertains to work" and in this job, things never work out the way they want to". An example of the construct self-efficacy (Bandura, 1997) includes "I feel confident in representing my work area in meetings with management".

An example of the Subscale resilience (Masten & Reed, 2002) includes "I can get through difficult times at work because I've experienced difficulty before.

Research (Du Plessis & Barkhuizen, 2012) has shown that this instrument is reliable, valid and applicable to the South African context. For example, in a South African study, Appollis (2010) found a Cronbach's alpha coefficient of 0.93 for the overall scale, indicating a high level of internal consistency for this measure. This is supported by Avey et al. (2010) and Robert et al. (2011) who found Cronbach's alpha coefficients of 0.88 and 0.89 respectively. Each of the four subscales of Psycap were drawn from established scales previously published, tested and used in recent workplace studies. They are as follows:

#### 3.3.4. General Health Questionnaire

The General Health Questionnaire (GHQ-12) was developed by Goldberg and Williams (1988) and includes 12 items on a 6 point Likert scale with response options: 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree. The scale focuses on two major areas – the inability to carry out normal functions and the appearance of new and distressing experiences (Goldberg & Williams, 1988). The scale was used as it detects anxiety and depression disorders – common disorders associated with a poor-work life balance and occupational stress. Examples of the scale include: "have you recently been able to concentrate on whatever you are doing", "have you recently felt under strain" and "have you been able to enjoy your normal day to day activities" (Goldberg & Williams, 1988). Research (Jones, Rona, Hooper & Wesseley, 2006) has shown that the scale has good internal consistency (reliability coefficients greater than 0.75). In addition, a study conducted by Kihi, Rezaki, Rezaki, Kaplan, Ozgen, Sagduyu and Ozturk (1997) has found a Cronbach alpha value of 0.78.

#### 3.4 Research Procedure

Since the study consisted of a diverse sample (it included cleaning staff, administrative staff, and academic staff), different gate keepers were contacted. The gate keepers that were contacted included the respective managers of the cleaning staff, administrative staff and academic staff. These gatekeepers were contacted telephonically to seek permission to conduct the study. After permission was granted telephonically, the researcher sent an electronic letter to the respective gatekeepers. The letter included a brief discussion of the purpose and benefits of the study. Thereafter, the researcher made arrangements to meet with the respective managers. At the respective meetings with the different managers, the research was explained and the managers were assured that employees' anonymity and confidentiality would be maintained at all times and that the research findings would not harm the employees in any way. The managers also agreed to distribute the questionnaire booklets together with the informed consent form to their respective employees. The employees were given two weeks to complete the questionnaires. After the two week period, the researcher contacted the different managers and agreed to collect the completed questionnaires. It must also be noted that a limitation of the study is that the questionnaires were only conducted in English which may have been problematic considering that there were a high number of cleaning staff that participated in the study. A pilot study should have therefore been conducted.

#### 3.5. Ethical considerations

A central feature of the American Psychological Association (APA, 2002) code is the concept of informed consent which stipulates that human participants should be given enough information about the research study's purpose and procedures to decide if they wish to participate. Hence, in abiding with the code of ethics, participants were asked to complete an

informed consent form. Participants were informed of the purpose of the study, including a brief description of the research area and the potential advantages and disadvantages of the study. In addition, they were also informed of their rights as participants, participation requirements, and how the data would be stored, all while being assured of complete confidentiality and anonymity. This is in accordance with the university's (in which the study was conducted in) research policy of integrity and honesty as the researcher was honest at all times regarding the reasons for the study and also ensured strict confidentiality. Additionally, participants were informed that their participation in the research was entirely voluntary and that they could withdraw from the study at any time.

The APA (2002) code of ethics also stipulates that participants should be treated fairly and with respect at all times. Therefore, the researcher conducted both a briefing and debriefing session during which all aspects of the research was thoroughly discussed with the participants. Holmes (1976) states that debriefing serves two central purposes: dehoaxing and desensitising. Dehoaxing means revealing the true purpose of the assessment to the participants, and desensitising refers to the process of reducing any stress or negative feelings that might have been experienced during the assessment (Holmes, 1976). Hence, participants underwent the processes of dehoaxing and desensitising to ensure that their feelings as human beings were acknowledged and respected. Since research participants were asked to answer personal questions regarding their general health, occupational stress and work-life balance, anxiety issues would have occurred as participants may have been reminded of unpleasant thoughts, affects and experiences. Thus, desensitising attempted to resolves these issues. Studies (Smith & Richardson, 1983) have also shown that participants who are thoroughly debriefed evaluated the research experience positively. Thus, the research aimed to be of a benefit not only to the researcher, but also to the research participants. Hence, the research attempted to reach the notion of equipoise, the notion that stipulates that the benefits of the

research should severely outweigh the costs. The advantages of the research severely outweighed the disadvantages. For example, the participants learned various coping strategies that helped them to deal with occupational stress and work-life balance issues. In addition, research participants learned about positive psychology – a new paradigm of thinking about the world. Hence, participants learned how to apply positive psychological strengths to their lives to enhance their general health. Additionally, it must also be stated that the research was conducted in a safe environment that did not impede the health or well-being of participants. This was in line with the university's research ethics policy as well as the Health Professions Council's code of conduct for psychologists.

Lastly, the APA (2002) code of ethics stipulates that participants' confidentiality and anonymity must be guaranteed. This is also in accordance with the Health Professions Council of South Africa which stipulates that a psychologist shall safeguard the confidential information obtained in the course of practice, research or other professional duties (HPCSA, 2002). Hence, participants were briefed about their confidentiality and anonymity from the outset as the code of ethics stipulates that participants should feel confident that their identities will not be known by anyone other than the researcher and that only group or disguised data will be discussed (APA, 2002). Moreover, collected surveys will be safely stored for a period of 5 years in a secure cabinet in the school of psychology in the University of Kwazulu Natal, Howard College. After the 5 years, the researcher will then dispose of the data by shredding the completed surveys and then disposing of the completed surveys. Hence, confidentiality and anonymity will be guaranteed at all times.

# 3.6. Data Analysis

Data was captured using the statistical package for the Social Sciences program (version 21.0) to carry out the statistical analysis (IBM SPSS INC, 2012). Exploratory factor analysis

was conducted to determine the factor structure of the instruments as well as to assess the number of factors present in the instrument. Descriptive statistics was then used to describe the distribution of results. Inferential statistics was also used to draw information from the data collected to answer the specific research questions.

The descriptive statistics that were used included the mean (average number of scores), standard deviation (the distribution of scores about the average), minimum and maximum values, kurtosis and skewness was also used to describe the distribution of scores for the constructs: work-life balance, occupational stress, psychological capital and general health

To test for the reliability of the instruments (The Survey Work-Home Interaction Scale, The Job Stress Scale, PsyCap Questionnaire and The General Health Questionnaire), Cronbach alpha coefficients was used.

Next Pearson's correlation (a statistical technique used to understand the linear relationship between two variables by determining the correlation coefficient (r) was used in this study (Howell, 2003). This was important in order to assess whether there was a strong relationship between occupational stress, psychological capital and general health. Correlation matrix was then computed to check for statistical and practical significant relationships. The strength of the relationship determined by coefficient value being greater or equal to 0.05 was considered statistically significant (Neuman, 2006).

Multiple regression analysis was conducted to assess the contribution of the predictor variable, work life balance, on occupational stress. Additionally, multiple regression analysis was used to assess the contribution of the predictors psychological capital, work life balance and occupational stress on general health.

Lastly, in order to assess for mediation, the process for SPSS as developed by Hayes (2009) was used. "According to Hayes (2009) there is support for mediation if the following are obtained (1) the first regression equation shows that the independent variable (occupational stress) relates to the dependent variable (general health); (2) the second equation shows that the independent variable (occupational stress) relates to the mediating variable (PsyCap) and (3) the third regression shows that the mediating variable (PsyCap) relates to the dependent variable (general health) and the relationship of the independent variable (occupational stress) with the dependent variable (general health) is significantly lower in magnitude in the third equation than the second. For full mediation, the independent variable must not relate to the dependent variable when the mediating variable is added to the equation" (Baron & Kenny, 1986). "Sobel tests were then used to confirm the mediation model. Sobel tests were designed to assess whether the mediating variable (PsyCap) carries the effects of the independent variable (occupational stress) to a dependent variable (general health)" (Baron & Kenny, 1986). The computed statistic measured the indirect effect if the independent variable on the dependent variable by way of a mediator.

# 3.7 Chapter Summary

This chapter discussed the research method used in carrying out the study. This included a discussion of the research design, sample and sample size, research instruments, procedure of the study, ethical considerations and statistical procedures used for the data analysis. The study adopted a quantitative research approach and used a cross-sectional survey design. The sample consisted of a 102 working women of various ages, economic statuses, races and marital statuses. The research instruments used were standardised questionnaires with good reliability scores. The specific questionnaires that were used included the Survey Work-Home Interaction Scale, The Job Stress Scale, The Psychological Capital Questionnaire and the General Health Questionnaire. The research procedure followed involved the researcher

meeting with the respective managers to explain the purpose of the research and hand over the 160 questionnaires. The questionnaires were administered by the managers and were collected after a period of two weeks. Ethical considerations of this study included explaining the purpose of the study to the participants verbally as well as through the use of an informed consent form. The voluntary nature of participation was emphasised and signatures were obtained. Statistical procedures used for the data analysis involved the computing of factor analyses, descriptive statistics, person correlation analysis and multiple regression analysis. Additionally, to assess for mediation, the process for SPSS as developed by Hayes (2009) was used.

#### **CHAPTER FOUR**

## RESULTS

#### 4.1 Introduction

This chapter provides a discussion of the results obtained from statistical analysis of the data. It provides the descriptive and inferential statistics for the sample studied. Firstly, the results of factor analysis conducted on the Survey Work Home Interaction Scale, Psychological Capital Questionnaire and Job Stress Scale will be outlined. Secondly, the descriptive statistics of the measures and the Cronbach's alpha coefficients indicating the reliability of the measures and their relevant subscales will be reported on. Thirdly, the application of the Pearson product-moment correlation to determine the relationships between the variables will be shown. Fourthly, the results of the multiple regression analysis will be displayed. Lastly, to assess for mediation, the process for SPSS as developed by Hayes (2009) will be displayed.

## 4.2. Exploratory Factor Analysis

Table 2: Exploratory Factor Analysis of the Survey Work Home Interaction Scale

	Compo	nent
_	1	2
SWHIS1		.802
SWHIS2		.715
SWHIS4		.828
SWHIS5		.769
SWHIS6		.730
SWHIS7		.648
SWHIS8		.854
SWHIS9		.812
SWHIS14	.412	
[SWHIS18	.900	
SWHIS19	.908	
SWHIS20	.889	
SWHIS21	.865	
SWHIS22	.629	
SWHIS23	.614	
SWHIS24	.767	
SWHIS25	.831	
SWHIS26	.843	
SWHIS27	.828	

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

Principle component analysis was conducted on the 27 items of the Survey Work Home Interaction Scale. Assessment of the suitability of data for factor analysis indicated the presence of many correlation coefficients of 0.30 and above in the correlation matrix. The Kaiser-Meyer Olkin value was 0.850 and the Bartlett's Test of Sphericity value was 0.000, indicating that the data was suitable for analysis.

Principle component analysis indicated the presence of 6 components with eigenvalues above 1, explaining 35.67% (component 1), 16.78 (component 2), 8.00% (component 3), 5.21% (component 4), 4.56% (component 5) and 3.76% (component 6). Examination of the pattern matrix table indicated that factors were loading quite high on multiple components, as opposed to loading on 4 components as was previously researched. Thus, a decision was made to further reduce the number of components by forcing a reduced number of factors.

Subsequent analysis indicated the presence of four components with eigenvalues above 1. Items 3, 10, 11 and 12 were loading quite highly on multiple components and were therefore removed. A subsequent decision was made to further force extraction and reduce number of components. Examination of the analysis revealed two distinct components. Since there was a presence of two distinct components a decision was made to rename the components as positive work life balance (component 1) and negative work life balance (component 2). However, Items 16 and 17 loaded on both components and were therefore excluded. Additionally, item 13 and 15 failed to load and was excluded. Interestingly item 14 loaded on component 1 (positive work life balance) instead of component 2 (negative work life balance).

Table 3: Exploratory Factor Analysis of the Psychological Capital Scale

		Component	
_	1	2	3
PCQ1	.700		
PCQ2	.953		
PCQ3	.959		
PCQ4	.870		
PCQ5	.832		
PCQ6	.809		
PCQ7	.706		
PCQ8	.710		
PCQ9	.603		
PCQ10	.827		
PCQ11	.819		
PCQ12	.460		
PCQ13		.839	
PCQ14			608
PCQ15			810
PCQ16			731
PCQ19	.514		
PCQ20		.789	
PCQ22	.552		
PCQ23		.717	
PCQ24			706

The 24 items of the Psychological Capital Questionnaire (PCQ) were subjected to principle components analysis. An assessment of the suitability of the data for the factor analysis indicated the presence of many correlation coefficients of 0.30 and above in the correlation matrix. The Kaiser-Meyer Olkin value was 0.905, and the Bartletts test of Sphericity value was 0.000, indicating that the data was suitable for factor analysis.

Principle component analysis (PCA) revealed the presence of four components with eigenvalues above 1, explaining 51.501% (Component 1), 8.500% (Component 2), 5.976% (Component 3), and 4.803% (component 4). Items 17 and 18 were removed as it was loading quite highly two components. A decision was made to further force extraction. SPSS revealed the presence of 3 components. Self-efficacy and hope were loading on the same components. Therefore, a decision was made to reject the 4 component model and retain a 1 component model for psychological capital. The researcher acknowledges that whilst there is no scientific overarching definition for psychological capital, the research chose to retain a one factor model as factors were loading on multiple components. The researcher was also interested in understanding the mediating effect on psychological capital as a whole on occupational stress and general health. Hence, the one factor model for psychological capital.

Table 4: Exploratory Factor Analysis of the Job Stress Scale

	Compone	ent
_	1	2
JS1		.639
JS2	.944	
JS4	.855	
JS5		.851
JS6	.514	
JS7		.866
JS8		.799
JS10	.756	
JS11	.727	
JS12	.839	
JS13		.871

The 13 items of the Job Stress Scale were similarly subjected to principle component analysis (PCA) using SPSS 21. However, before performing PCA, the suitability of the data for factor analysis was assessed. This was achieved through an examination of the correlation matrix, which indicated the presence of many correlation coefficients of 0.30 and above. Additionally, the Kaiser-Meyer-Olkin value was 0.851, which was above the recommended value of 0.60, and the Bartlett's test of Sphercity was less than 0.05 and therefore statistically significant (p = 0.000). This provided evidence for the factorability of the correlation matrix.

PCA revealed the presence of 2 components with eigenvalues above 1, explaining 52.392% and 15.835% of the variance respectively. Examination of the scree plot indicated a break in two points, indicating a presence of a 2 factor model. However, items 3 and 9 were loading quite strongly on both components and were therefore removed.

Exploratory Factor Analysis for the General Health Questionnaire (GHQ -12) was excluded as the writer made use of the condensed version of the GHQ which only consists of 12 items and no sub-scales. According to Yong and Pearce (2013) factor analysis is used for studies that involve a few or hundreds of variables which can be reduced to a smaller set, to get at an underlying concept, and to facilitate interpretations. Considering that the researcher chose to use the 12 item General Health Questionnaire, factor analysis was therefore excluded as the items were too small to conduct useful factor analysis.

## 4.3. Descriptive Statistics

Table 5: Psychometric Characteristics of Measures

Variables	N	Minimum	Maximum	Mean	SD	Skewness	Kurtosis	α
SWING	98	19.00	97.00	57.8265	18.92853	646	049	0.923
Negative WLB	100	9.00	49.00	22.0900	9.37339	.586	.249	0.887
Positive WLB	100	10.00	60.00	35.9000	13.15832	590	500	0.944
Job Stress Scale	100	11.00	62.00	32.3300	12.59955	.395	116	0.904
Time Stress	101	7.00	39.00	19.3564	8.16772	.662	175	0.865
Anxiety Rel. Stress	101	4.00	24.00	12.7723	5.31014	.124	515	0.805
PsyCaP	96	33.00	122.00	86.5000	18.98587	-1.100	.751	0.910
General Health	98	12.00	63.00	43.7755	11.46445	-1.209	1.262	0.859

Table 5 outlines the descriptive statistics for the sample under the study. It provides information on the minimum, maximum, mean, standard deviation, skewness and kurtosis, as well as the Cronbach alpha coefficients of the Survey Work Home Interaction Scale (SWING), Job Stress Scale, Psychological Capital Questionnaire and General Health Questionnaire. According to the table, scores on all four measures are normally distributed. Negative skewness values for total work life balance (as measured by the Survey Work Home Interaction Scale (SWING)), positive work life balance, PCQ and GHQ indicates that the scores tend to be clustered around the high end of the distribution. Positive skewness values for the negative work life balance, JSS, time stress and anxiety related stress indicate that scores tend to be clustered around the low end of the distribution. However, inspection of the distribution of scores on the histogram and normal probability plots indicates that the scores appear to be relatively normally distributed. Positive Kurtosis for the negative work life balance and PCQ indicate that the distribution of scores for these measures is rather peaked (clustered at the center). Additionally, all kurtosis values are above 0, indicating that the distribution is not a flat one.

Furthermore, the data was assessed for normality through an examination of the extreme scores. The difference in values for the Mean and 5% Trimmed Mean was small for each of the scales and relevant subscales examined for extreme scores.

In order to determine the reliability of the measures, Cronbach alpha coefficients were computed. Pallant (2010) states that Cronbach alpha values above 0.70 are considered acceptable, although values above 0.80 are generally preferable. As indicated in Table 5 above, the Cronbach alpha coefficients for all four measures exceeds the preferred reliability level of 0.80. Therefore, these can be concluded as reliable measures.

#### 4.4. Pearson Product Moment Correlation

Pearson product-moment correlations were computed to determine the relationship between variables (the scores on the SWING, JSS, PCQ and GHQ). The results of the Pearson correlation have been summarised in Table 6 below.

Table 6: Bivariate Pearson's product moment correlations among the variables

Variables	1	2	3	4	5	6	7
1. SWING	1						
2. Negative WLB	.761***++	1					
3. Positive WLB	.886***++	.373***+	1				
4. Occ Stress	.665***++	.822***	.359***+	1			
5. Time Stress	.614***++	.802***	.305**+	.962***++	1		
6. Anxiety Related Stress	.670***++	.741***	.428***+	.908***++	.760***++	1	
7. PsyCaP	.435***+	.146	.505***	.186	.187	.187	1
8. General Health	.703***++	.523***++	.629***++	.519***++	.432***+	.590***++	.590***++

\*\*\* Statistical significance at p $\leq$ 0.001; \*\* Statistical significance at p $\leq$ 0.01. \*Statistical significance at p $\leq$ 0.05; + r $\geq$ 0.30 - Practically significant relationship (Medium effect); ++ r $\geq$ 0.50- Practically significant relationship (Large effect)

Work life balance as measured by the Survey Work Home Interaction Scale (SWING) displayed a practically and statistically significant relationship with negative work life balance (WLB), positive work life balance (WLB), occupational stress (as measured by the Job Stress Scale), time stress, anxiety related stress and general health ( $p \le 0.001$ ) (large

effect). Additionally, Work life balance displayed a practically and statistically significant relationship with psychological capital ( $p \le 0.001$ ) (medium effect).

Negative work life balance displayed a practically and significantly relationship with positive work life balance ( $p \le 0.001$ ) (medium effect). Additionally negative work life balance displayed a practically and significantly relationship with general health  $p \le 0.001$ ) (large effect). Furthermore, negative work life balance displayed a statistically significant relationship with occupational stress (as measured by the Job Stress Scale), time stress and anxiety related stress ( $p \le 0.001$ ).

Positive work life balance displayed a practically and statistically significant relationship with occupational stress and anxiety related stress ( $p \le 0.001$ ) (medium effect). In addition, positive work life balance displayed a practically and statistically significant relationship with general health ( $p \le 0.001$ ) (large effect). Furthermore, positive work life balance displayed a practically and statistically significant relationship with time stress ( $p \le 0.05$ ) (medium effect). Positive work life balance also displayed statistically significant relationship with psychological capital ( $p \le 0.001$ ).

Occupational stress displayed a practically and statistically significant relationship with time stress, anxiety related stress and general health ( $p \le 0.001$ ) (large effect).

Time stress displayed a practically and statistically significant relationship with anxiety related stress (p  $\leq$  0.001) (large effect). Moreover, time stress displayed a practically and statistically significant relationship with general health (p  $\leq$  0.001) (medium effect).

Anxiety related stress shared a practically and statistically significant relationship with general health ( $p \le 0.001$ ) (large effect).

Psychological capital displayed a practically and statistically significant relationship with general health ( $p \le 0.001$ ) (large effect).

General health displayed a practically and statistically significant relationship with work life balance, negative work life balance, positive work life balance, anxiety related stress and psychological capital ( $p \le 0.001$ ) (large effect). General health also displayed a practically and statistically significant relationship with time stress( $p \le 0.001$ ) (medium effect).

## 4.5. Multiple Regression Analyses

Table 7: Standard multiple regression of Negative WLB and Positive WLB as independent variables and Occ stress as a dependent variable

Model	Unstand Coeffi		Standardized Coefficients	t	Sig.	<i>F</i>	R	$R^2$	$\Delta R^2$
	β	SE	Beta			98.152	0.824	0.679	0.672
1 (Constant)	6.507	2.402		2.709	.008				
Negative WLB	1.074	.085	.799	12.607	.000****				
Positive WLB	.058	.061	.061	.963	.338				

Dependant Variable: Job Stress

A standard multiple regression analyses was used to assess the ability of negative work life balance and positive work life balance to predict occupational stress as measured by the Job Stress Scale. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, multicollinearity and homoscedasticity. The named variables were entered and the total variance explained by the model as a whole was 67.9%, F = 98.152, p < 0.001. A statistical significance for only negative work life balance (WLB) was found to make a unique contribution to occupational stress ( $\beta = 0.80$ ; t = 12.61; p < 0.001).

 Table 8: Regression Analysis of SWING as an independent variable and OS as a dependent variable

Model		dardized ïcients	Standardized Coefficients	t	Sig.	F	R	$R^2$	$\Delta R^2$
	β	SE	Beta			74.709	.665	.443	.437
1 (Constant)	6.716	3.117		2.155	.034				
SWING	.443	.051	.665	8.643	.000****+				

<sup>\*\*\*</sup> Statistical significance at p≤0.001; F, F-test of F statistic;  $\beta$ , beta; SE, standard error of the estimate;  $R^2$ , R squared; p, probability value;  $+ r \ge 0.30$  – Practically significant relationship (Medium effect);  $++ r \ge 0.50$ - Practically significant relationship (Large effect)

Dependant Variable: Job Stress

\*\*\* Statistical significance at p≤0.001; F, F-test of F statistic;  $\beta$ , beta; SE, standard error of the estimate;  $R^2$ , R squared; p, probability value;  $+ r \ge 0.30$  – Practically significant relationship (Medium effect);  $++ r \ge 0.50$ - Practically significant relationship (Large effect)

The above table shows the results of simple linear regression. From the above it can be seen that the model predicts 4.43% of the variance of the dependent variable ( $R^2 = 0.443$ ; F = 74.71, p < 0.001). The results revealed that work life balance, as measured by SWING, makes a unique contribution to occupational stress, as measured by the JSS ( $\beta = 0.67$ ; t = 8.64; p < 0.001).

Table 9: Coefficients showing the relative contribution of psychological capital, SWING and Occupational

Stress as measured by JSS in predicting GH.

Model	Unstandardize d Coefficients		Standardized Coefficients	t	Sig.	F	R	$R^2$	$\Delta R^2$
	β	SE	Beta			46.495	0.780	0.608	0.595
1 (Constant)	4.455	3.769		1.182	.240				
Total SWING	.263	.059	.435	4.453	.000****				
Total Job Stress	.146	.081	.161	1.797	.076				
Total PSYCAP	.224	.045	.371	4.995	.000****				

Dependant Variable: General Health

As seen in the table above, standard multiple regression was used to assess the ability of psychological capital, work life balance (as measured by SWING) and occupational stress in predicting general health. Additionally, preliminary analyses were conducted to ensure no violation of the assumptions of normality, multicollinearity and homoscedasticity. The total variance explained by the model as a whole was 61.00%, F = 46.50, p < 0.001. A statistical significance for only two of the predictors was found to make a unique contribution to general health: work life balance (as measured by SWING) ( $\beta = 0.44$ ; t = 4.45;  $p \le 0.001$ ) and psychological capital ( $\beta = 0.37$ ; t = 5.00;  $p \le 0.001$ ).

<sup>\*\*\*</sup> Statistical significance at p  $\leq$  0.001; F, F-test of F statistic;  $\beta$ , beta; SE, standard error of the estimate;  $R^2$ , R squared; p, probability value;

 $<sup>+</sup> r \ge 0.30$  - Practically significant relationship (Medium effect);  $++ r \ge 0.50$ - Practically significant relationship (Large effect)

Table 10: Coefficients showing the relative contribution of PsyCaP, dimensions of SWING and dimensions of OS in predicting GH.

Model		lardized icients	Standardized Coefficients	t	Sig.	<i>F</i>	R	$R^2$	$\Delta R^2$
	β	SE	Beta			33.711	0.809	0.654	0.635
(Constant)	3.606	3.569		1.010	.315	_			
1 PSYCAP	.245	.044	.406	5.562	.000****				
Negative WLB	.338	.138	.276	2.452	.016*				
Positive WLB	.196	.070	.225	2.809	.006**				
Time Stress	318	.163	227	-1.950	.054				
Anxiety Related Stress	.831	.228	.385	3.639	.000***+				

Dependant Variable: General Health

Table 10 indicates the results of standard multiple regression. It was used to assess the ability of psychological capital (PsyCap), dimensions of SWING and dimensions of occupational stress on general health. The named variables were entered and the variance explained by the model as a whole was 65.40%; F = 33.71; p < 0.001. A statistical significance of four of the predictors were found to make a unique contribution to general health: PsyCap ( $\beta = 0.41$ ; t = 5.56;  $p \le 0.001$ ); anxiety related stress ( $\beta = 0.39$ ; t = 3.64;  $p \le 0.001$ ); negative work life balance ( $\beta = 0.28$ ; t = 2.45; p < 0.05) and positive work life balance ( $\beta = 0.23$ ; t = 2.81; p < 0.05)

Next the mediating effects of psychological capital on occupational stress and general health will be discussed.

<sup>\*\*\*</sup> Statistical significance at p $\leq$ 0.001; F, F-test of F statistic;  $\beta$ , beta; SE, standard error of the estimate;  $R^2$ , R squared; p, probability value;

<sup>+</sup>  $r \ge 0.30$  - Practically significant relationship (Medium effect); ++  $r \ge 0.50$ - Practically significant relationship (Large effect)

## 4.6. Mediation Analyses

Table 11:

	Effect	SE	t	p	Boot SE	BootLLCI	BootULCI	Z
Total Effect of Occupational Stress on GH	0.431	0.078	5.530	0.000***				
Direct Effect of Occupational Stress on GH	0.350	0.067	5.263	0.000***				
Indirect Effect of Occupational Stress on GH	0.080				0.058	0.007	0. 225	
Sobel Test	0.080	0.045		0.076				1.775

\*\*\* Statistical significance at p≤0.001

Number of bootstrap samples for bias corrected bootstrap confidence intervals: 1000

Level of confidence for all confidence intervals in output: 95, 00

Table 11 above indicates the results of the mediating effects of psychological on occupational stress and general health. Table 11 provides information on the total effect of occupational stress on general health (step 1), the direct effect of occupational stress on general health (step 2), the indirect effect of occupational stress on general health (step 3) and lastly, the sobel test (step 4).

Step 1 shows the total effects of the predictor on the outcome. This is the effect of the predictor on the outcome when the mediator is not present in the model (b = 0.43, t = 5.53,  $p \le 0.001$ ). Step 2 indicates the effect of occupational stress on general health when PsyCap is included as a predictor as well (b = 0.35, t = 5.26,  $p \le 0.001$ ). Step 3 is the most important part of the output because it displays the results for the indirect effect of occupational stress on general health (the effect via PsyCap). It provides the estimate of this effect b = 0.080 as well as the bootstrapped standard error and confidence interval (95%). It can be seen that the true value b for the indirect effect falls between -0.007 and 0.225. Because this range contains the value zero (b = 0), there will be no effect whatsoever; therefore the fact that the

confidence interval does contain zero means that there is likely to be no genuine indirect effect. Stated in another way, PsyCap is not a mediator of the relationship between occupational stress and general health.

Step 4 provides information on the Sobel Test. While it is encouraged to report the bootstrap confidence intervals than formal tests of significance, the Sobel Test in Process for SPSS was selected and thus, the size of the indirect effect (0.08), the standard error associated z score (1.78) and the p value (p = 0.08) were provided. It can be seen that the p-value is above the threshold 0.05. Thus, it can be concluded that there is no significant indirect effect. Noteworthy also, is that every single effect size had a confidence interval containing zero, which is compelling evidence that there is no significant and meaningful mediation effect.

# 4.7. Chapter Summary

This chapter discussed the results obtained from the statistical analysis of the data. Firstly, it provided information on the Factor Analysis of each of the four scales (Survey Work Home Interaction Scale, Job Stress Scale, Psychological Capital Questionnaire and General Health Questionnaire). Secondly, this chapter provided an analysis of each the descriptive statistics and Cronbach alpha coefficients on each of their scales and respective subscales. Thirdly, this chapter provided an analysis of the correlations of the scales and subscales used in the study. Fourthly, this chapter highlighted the results of multiple regression. Lastly, this chapter discussed the mediator effects of psychological capital between occupational stress and general health.

#### **CHAPTER FIVE**

#### **DISCUSSION**

#### 5.1 Introduction

This chapter provides a discussion on the results reported on the previous chapter. The results are also discussed within the theoretical conceptualisations of work-life balance, occupational stress, psychological capital and general health. Additionally, the results of the current study are discussed in its relation to previous studies and within the theoretical frameworks of The Broaden and Build Theory (Fredrickson, 1998, 2001, 2003) and The Self Determination Theory (Deci & Ryan, 2000).

There were three main objectives of this study. Firstly, the study sought to determine how work-life balance, occupational stress, psychological capital and general health are conceptualised in the literature. This was covered extensively in chapter two of the thesis (Literature Review). Secondly, the study sought to examine the relationship between work-life balance, occupational stress, psychological capital and general health among working women at a university. Finally, the study sought to examine whether psychological capital mediates the relationship between occupational stress and general health.

In previous years, universities were known for their low stress, secure and safe employment status (Catano et al., 2010). However, over the past few years, the university environment as well as the perceptions of academic careers has changed drastically (Catano et al., 2010). This is due mainly to the changing context of work during the 21<sup>st</sup> century. Tertiary institutions are now characterised by unmanageable workloads, too much administrative work, inadequate resources and lack of support from management (Coetzee & Rothman,

2005). There has also been a greater emphasis on research and greater concerns for equity and social benefits of education (Catano et al., 2010).

This kind of environment is known to cause paramount stress among university staff (Bell et al., 2012). This stress is further exacerbated by a poor work-life balance, especially for working women who have to manage both home and work-life. Additionally, the increase of stress due to the inability to balance work and life may lead to detrimental health outcomes (Van der Colff et al., 2009). Research (Sieberhagen et al., 2009) has found that occupational stress decreases the quality of good general health. For example, Code and Langan-Fox (2001) found that jobs with excessive demands and many responsibilities (like jobs within a university) may cause occupational stress, which may lead to adverse health outcomes.

However, research (Gallanakis et al., 2011) has shown that positive emotions may help individuals contend with life challenges, thus leading to better health outcomes. Hence, the present study aimed to examine whether psychological capital acts as a mediator between occupational stress and general health, as a better understanding of the development of the problem may help in the construction of appropriate interventions.

Furthermore, considering the lack of literature examining psychological capital within the South African context (Rothman & Cilliers, 2007), there is an obvious need to conduct more research within this fairly new area so it can be determined whether psychological capital mediates the relationship between occupational stress and general health among working women at a university.

While the present study found the need to understand psychological capital as a mediator between occupational stress and general health, the present study found that there was no significant mediating effect between the variables. Therefore, the researcher chose to reject the second aim of the research. However, the researcher notes that the research has shown

that a higher level of psychological capital is associated with higher levels of general health. Additionally, the study found that while negative work life balance does not necessarily diminish the experience of good general health, it may lead to an increase in occupational stress.

#### **5.2 Discussion of Results**

## 5.2.1. Exploratory Factor Analysis

Exploratory factor analysis is a statistical technique often used in the initial stages of research to explore the interrelationships and underlying factor structure of a set of variables without the researcher having a preconceived idea of the outcome. Unlike confirmatory factor analysis which seeks to confirm an existing factor structure, exploratory factor analysis seeks to identify the underlying factor structure of a set of variables (Suhr, 2006).

Exploratory factor analysis conducted on the SWING found a two-factor model best suited the data. This is in contrast to the original four factor model determined by Geurts et al. (2007) in which Negative work home interaction, Negative home-work interaction, Positive work-home interaction and Positive home-work interaction were identified as being the four factors present. The four factor model was also confirmed by previous studies (Mostert & Oldfield, 2009; Rost & Mostert, 2007; Pieterse, 2004). It is clear from the current study that the sample did not appear to differentiate between work-home and home-work interactions, rather the sample observed a two factor model which was named positive work life balance and negative work life balance.

Exploratory analysis of the PCQ found a one-factor model best suited the data. This is in contrast to the original four factor model determined by Luthans, Youssef and Avolio (2007) which identified Self-efficacy, Optimism, Hope and Resilience as being four factors present.

Further research (Herbert, 2011) further confirms this four factor model. However, what was apparent with the results was that self-efficacy and hope were loading on similar components which meant that the sample did not differentiate between self-efficacy and hope. A study by du Plessis and Barkhuizen (2011) found a similar result in which the sample did not differentiate between self-efficacy and hope, resulting in the hopeful-confidence subscale. However, the present study sought to understand the relationship of psychological capital in its entirety as this was deemed to be more suitable to the data.

Exploratory Analysis of the JSS found a two factor model best suited the data. This is in accordance with the original two factor model determined by Parker and DeCottis (1983) and confirmed by Addae and Wang (2006) who found that occupational stress is a two-dimensional construct consisting of Time Pressure and Anxiety.

## 5.2.2 Reliability

High levels of internal consistency were determined for each of the measuring instruments and their subscales. Cronbach's alpha coefficients were used to determine the reliability of the instruments. Cronbach's alpha coefficients above 0.70 are considered acceptable, although values above 0.80 are generally preferable (Pallant, 2010). Hence, in an accordance with these guidelines, all four measuring instruments and their respective subscales had Cronbach's alpha coefficients above 0.80.

A high level of reliability was found for the two-factor model of SWING which had a Cronbach's alpha coefficient of 0.92. Cronbach alpha coefficients for the two SWING factors extracted from exploratory factor analysis, Negative WLB and Positive WLB, were 0.89 and 0.94 respectively. Previous studies determined a four factor structure with Cronbach's alpha coefficients above 0.70 determined for the overall measure (Geurts et al., 2007); Rost & Mostert, 2007; Mostert, 2009). Additionally, these authors found acceptable reliabilities for

each of the original subscales. The present study, however, determined that a two factor structure consisting of Negative WLB and Positive WLB best suited the data as the sample did not differentiate between work-home interaction and home-work interaction.

The Job Stress Scale displayed a high level of internal consistency with a Cronbach's alpha coefficient of 0.94. This is similar to the findigs of Almendra (2010) who found a Cronbach's alpha coefficient of 0.91 for the overall measure. High levels of reliability were also found with each of the subscales with the Cronbach's alpha coefficient of time stress being 0.87 and the Cronbach's alpha coefficient of anxiety related stress being 0.81. This is in accordance with the findings of Parker & Decotiis (1983) who reported Cronbach's alpha coefficients of 0.86 for time stress and 0.74 for anxiety related stress.

A high level of reliability was found for PsyCap with a Cronbach's alpha coefficient of 0.91. Previous studies (Appolllis 2010; Toor & Ofori, 2010; Roberts et al., 2007) determined a four factor model for the overall measure with Cronbach's alpha coefficients above 0.80 for the overall measure. The authors also established acceptable reliabilities for each of the subscales. However, for the purposes of this study, PsyCap was observed in its entirety as this was deemed more appropriate to the sample.

The General Health Questionnaire also displayed a high level of internal consistency with a Cronbach's alpha coefficient of 0.86. This is in accordance with the finding of Goldberg and Williams (1988) and Kihi et al. (1997) who found Cronbach's alpha coefficients above 0.75 for the measure.

## **5.2.3. Pearson Product Moment Correlation Analysis**

The second objective of the study was to determine the relationship between work-life balance, occupational stress, psychological capital and general health. In order to do so, the Pearson product-moment correlation was conducted on each of the above constructs.

The findings of the study indicated that work-life balance as measured by SWING displayed a positive relationship with occupational stress, psychological capital and general health. A stronger relationship was found between work-life balance and general health than work-life balance and psychological capital. Additionally, negative work life balance was positively correlated with general health, occupational stress, time stress and anxiety related stress. This meant that higher levels of negative work life balance is associated with higher levels of general health, occupational stress, time stress and anxiety related stress. This is in contrast to studies (Mostert et al., 2008; Lakshmi & Kumar, 2011) which showed that the inability to balance work and life leads to detrimental health outcomes. This is supported by Davidson and Cooper (1984) who found that female managers are susceptible to sleep troubles and tend to be heavier smokers than male managers due to the increasing stress they experience at home and at work. Additionally, Bell et al. (2012) found that perceived occupational stress was associated with poorer work-life balance and increased conflict between academics work and personal lives.

In contrast, the positive relationship between positive work-life balance, occupational stress, anxiety related stress and time stress indicates that higher levels of positive work-life balance is associated with higher levels of occupational stress, anxiety related stress and time stress. This suggests that positive work life balance may not necessarily diminish the experience of occupational stress, anxiety related stress and time stress. This is in contrast to the finding of Lakshmi and Kumar who found that a good work life balance reduces stress and leads to a

positive health outcome. The results also indicated that the relationships between positive work life balance and occupational stress was not high, indicating a poor relationship. Thus, positive work life balance may not reduce occupational stress. This is contrary to a study conducted by Lyness and Judiesche 2008 which found that positive work life balance reduces stress and has a positive effect on a women's self esteem and morale both at the workplace and at home. The study also found that failure to achieve work-life balance leads to depression and a working woman may lose her self-image at work and home resulting in a sense of alienation ( ( Lyness & Judiesche, 2008). Thus, the current study does not support the findings of previous studies.

Additionally, positive work life balance showed a positive relationship with general health. This suggests that a higher level of positive work-life balance is associated with higher levels of general health. This is similar to the findings of Kinman and Jones (2003) who found work life balance and occupational stress to be linked with detrimental effects on employee's physical and psychological health among tertiary institutions. This is supported by Dua (1994) who found that occupational stress is linked to psychological distress such as anxiety.

Furthermore, a positive relationship between positive work life balance and psychological capital suggests that a higher level of positive work-life balance is associated with higher levels of psychological capital. This is similar to the findings of Sen and Hooja (2015) who found that work life balance and psychological capital were positively correlated.

Interestingly, the research found that the relationship between positive work life balance and negative work life balance was not high, indicating a poor relationship. This may suggest that the distinction between the variables may be 'blurred'. The researcher suggests that this could be because of a 'mixed impact' (Lakshmi & Kumar, 2009). Negative and positive feelings may arise because by fulfilling responsibilities of both the roles (work and family) a woman

may develop some qualities, strengths and sense of accomplishment. However, the impact is negative when she is not able to play both the roles due to imbalance and some demanding situations both at work and home like childcare, eldercare, workload and workplace bullying etc. As such, the distinction becomes 'blurred' or 'mixed'.

Additionally, the positive relationship between occupational stress and anxiety related stress as well as time stress suggests that higher levels of occupational stress is associated with higher levels of time stress and anxiety related stress. The increase of occupational stress due to time stress can be attributed to the characteristics of the 21<sup>st</sup> century workplace (heavy workloads, long hours and uncertain job expectations) (Code & Langan-Fox, 2009). A study by Avey et al. (2009) has found that these characteristics diminish the quality of good general health in the workplace. Anxiety related stress and time stress, in particular, also shared a positive relationship with general health. This suggests that higher levels of anxiety related stress and time stress is not necessarily associated with higher levels of poor general health. This is in contrast to the finding of Avey et al. (2009) who found that 20% of payroll goes toward dealing with stress related problems including anxiety and depression.

Moreover, psychological capital displayed a positive relationship with general health. This suggests that a higher level of psychological capital is associated with higher levels of good general health. This is similar to the finding of Cheung et al. (2001) who found that the positive characteristics of PsyCap may help employers alleviate occupational stress, leading to an increase in positive health outcomes. Additionally, research conducted by Sieberhagen, Rothman and Pienaar (2009) showed that the positive strengths of optimism and resilience leads to good general health in the workplace.

# 5.2.4. Multiple Regression Analysis

In order to further ascertain the relationships between the constructs work-life balance, occupational stress, psychological capital and general health, multiple regression analyses was conducted. Multiple regression analyses were conducted four times. Firstly, multiple regression analysis was conducted on positive work life balance and negative work life balance as independent variables and occupational stress as a dependent variable. Secondly, multiple regression analysis was conducted on work life balance in its entirety as an independent variable and occupational stress as a dependent variable. Thirdly, multiple regression analysis was conducted on psychological capital, SWING and occupational stress as independent variables and general health as a dependent variable. Lastly, multiple regression analysis was conducted on PsyCap, the dimensions of SWING and the dimensions of occupational stress as independent variables and general health as a dependent variable.

In the first analysis, the findings indicated that negative work life balance held predictive value for occupational stress. Additionally, in the second analysis, work-life balance as measured by SWING held predictive value for occupational stress. Bell et al. (2012) showed that poor work life balance was a predictor of occupational stress. Additionally, Fouad and Carter (1992) also observed that poor work life balance was a predictor of occupational stress.

In the third analysis, two of the independent variables (work-life balance, PsyCap) held predictive value for general health. In a study by Laksmi and Kumar, it was found that good work-life balance is a predictor of good general health. Interestingly, in this analysis, occupational stress did not hold predictive value for general health. This means that occupational stress does not necessarily influence good general health. This is in contrast to the finding of Code and Langan-Fox (2009) and Rodham and Bell (2002) who found that occupational stress is a predictor of poor general health.

Lastly, in the fourth analysis, four of the independent variables (PsyCap, anxiety related stress, negative work life balance and positive work-life balance held predictive value for general health. This is in accordance to the finding of Cheung et al. (2001) who found that the positive characteristics of PsyCap reduces occupational stress leading to better health outcomes. Interestingly, negative work life balance also held predictive value for general health which meant that good general health is not merely impacted by positive work life balance, but also negative work life balance.

#### **5.2.5.** Mediation Analysis

The third objective of this study was to determine whether psychological capital mediates the relationship between occupational stress and general health. In order to do so the process for mediation as developed by Hayes (2009) was used. Step three showed that there was no genuine mediation present. This meant that psychological capital did not mediate the relationship between occupational stress and general health. This was confirmed in step four of the Sobel test.

#### **5.3. Chapter Summary**

This chapter provided a discussion on the results of the study. The results of the statistical analyses conducted were discussed in terms of the research questions of the study and in relation to previous scientific research findings.

#### **CHAPTER SIX**

### CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

#### **6.1 Introduction**

This chapter provides a discussion on the conclusions arrived at of the current study in association with literature studied. Additionally, the limitations as well as future recommendations are discussed.

#### 6.2. Conclusions

The conclusions arrived at are in accordance with the research objectives of the study.

#### **6.2.1 Exploratory Factor Analysis**

Exploratory factor analysis of the SWING found that a two-factor model best suited the data. The original measure formulated by Geurts et al. (2007) consisted of four subscales (Negative work home interaction, Negative home-work interaction, Positive work-home interaction and Positive home-work interaction). This four factor model has been confirmed by subsequent studies. However, no previous research findings have determined a two factor model for this measure as determined in the present study. The two factor model of SWING used in the present study consisted of only two subscales, namely positive work life balance and negative work life balance.

Exploratory analysis of the Job Stress Scale determined a two factor model best suited the data. This is in accordance with the original measure as well as a previous study by Addae and Wang (2006).

Analysis of the Psychological Capital Questionnaire determined that the one factor model as opposed to the original four factor model formulated by Luthans et al (2007) best suited the

data. The four factor model has been confirmed by subsequent studies. From the data, it was established that the sample did not differentiate between self-efficacy and hope – a finding similar to du Plessis and Barkhuizen (2012), resulting in a three factor model. However, for the purposed of this study, the one factor model was used.

### **6.2.2** Reliabilities of the measuring instruments used.

High levels of reliability were established for each of the measuring instruments used in the present study. This suggests that the instruments were regarded as reliable and suitable to the present study.

#### 6.2.3 Correlations of the constructs discussed in the present study.

The research objective to determine the relationships between work life balance, occupational stress, psychological capital and general health were obtained. The study showed that negative work life balance was positively correlated with general health, occupational stress, time stress and anxiety related stress. This means that higher levels of negative work life balance is associated with higher levels of general health, occupational stress, time stress and anxiety related stress. This is in contrast to various studies which showed that the inability to balance work and life leads to detrimental health outcomes.

Moreover, the study showed a positive relationship between positive work-life balance, occupational stress, anxiety related stress and time stress. This indicates that higher levels of positive work-life balance is associated with higher levels of occupational stress, anxiety related stress and time stress. This meant that positive work life balance may not necessarily diminish the experience of occupational stress, anxiety related stress and time stress. This was in contrast to previous research which found that a good work life balance reduces stress and leads to a positive health outcome.

Additionally, positive work life balance showed a positive relationship with general health. This suggests that a higher level of positive work-life balance is associated with higher levels of general health. This is in accordance to previous research which found that good work life balance is associated with higher levels of good general health.

Furthermore, a positive relationship between positive work life balance and psychological capital suggests that a higher level of positive work-life balance is associated with higher levels of psychological capital. This is similar to research which found that the psychological capital plays a role in positive work life balance.

Moreover, the study found a positive relationship between occupational stress and anxiety related stress as well as time stress suggests that higher levels of occupational stress is associated with higher levels of time stress and anxiety related stress.

Lastly, the study found that psychological capital displayed a positive relationship with general health. This suggests that a higher level of psychological capital is associated with higher levels of good general health. This finding was similar to previous research which found that high psychological capital is associated with good general health.

#### **6.2.3** The predictive value of constructs used in the study

The study found that work-life balance as measured by SWING held predictive value for occupational stress. This meant that work life balance is a predictor of occupational stress. This was confirmed by various studies.

Additionally, the study found that work life balance and psychological capital held predictive value for general health. This meant the good work life balance and psychological capital are associated with good general health.

Furthermore, the study found that psychological capital, anxiety related stress, negative work life balance and positive work-life balance held predictive value for general health. Of particular interest, negative work life balance also held predictive value for general health which meant that good general health is not necessarily predicted by positive work life balance, but also negative work life balance. This may warrant further research within this area.

#### **6.3 Limitations**

While the present study attempted to investigate the relationship between work-life balance, occupational stress, psychological capital and general health among working women, it was limited to working women at a university. Thus, the research was limited in the sense that it was not broad- it did not survey working women in different organisations. Additionally, the research did not provide sufficient information on research conducted among staff at various universities. Thus, it was difficult to relate present findings with past findings. Furthermore, the research made use of questionnaires as the only medium in which to collect data. This was problematic as the research strategy hosts a number of challenges. Firstly, since participants answered on structured Likert scales, they were limited in their responses as the scales do not allow for flexibility of responses. Secondly, participants may have answered in a manner that was socially desirable. Thirdly, the participants may not have understood the wording of the questionnaires and may have answered regardless, jeopardising the reliability of the results. Fourthly, since the participants were asked to answer 5 long questionnaires, questionnaire fatigue may have occurred and participants left out certain questions resulting in loss of vital information. Thus, not all questionnaires that were collected were used.

Furthermore, it must be noted that the sample size of the study was quite small and limited the generalisability of the findings. According to Pallant (2010), a sample size of at least 150

participants would have been ideal for the results of factor analysis to be regarded as more reliable and accurate. Also, larger sample sizes are required when conducting multiple regression analysis.

Moreover, the study sought to also sample working women in management positions. However, it was not easy to access management staff and as a result only a few questionnaires were collected from management staff. This may have jeopardised the reliability of the results, as the management sample was too small to draw reliable statistical analysis. However, the management sample was merged with the academic staff sample to form one category – 'academic staff' Additionally, while the study sought to understand positive work life balance as well, very little literature had been conducted on the positive experiences of work-life balance. Thus, it was difficult to link the current findings of positive work life balance with previously conducted research.

Lastly, the use of a cross-sectional research design meant that casual relationships could not be accurately inferred since data was collected at one point in time. However, while significant relationships were observed in this study, causal relationships cannot be inferred in the study. In order to assess for causality, future research will have to adopt a longitudinal research design by observing the same phenomenon at different points in time.

#### **6.4.** Recommendations for future research

The study only sought to study the work-life balance and occupational stressors of working women at a university. It did not seek to study the work-life balance and occupational stressors of working men. Future research can embark on developing a comparative study of work life balance and occupational stressors of men and women to see if their results differ. This will be interesting as work-life balance and occupational stress affects both men and women. However, it would be interesting to see if it affects men and women similarly as vast

literature (Beutell & Greenhaus, 1985; Perrons, 2003; Watts, 2009; Lakshmi & Kumar, 2011) suggests that work-life balance affects women more, as women are still seen to be situated in the home domain. Thus, they have the task of managing both home and work life. Additionally, it would be equally beneficial to further research the work-life balance and occupational stress levels between various working women and men. Very little comparative studies (Winefield et al., 2003; Barkhuizen and Rothman, 2008) have been conducted on the work-life balance and occupational stress of academic staff, cleaning staff, management, and administrative staff. A comparative study will be beneficial to determine where the work-life balance dilemma and occupational stress is situated. It will also provide answers as to how different types of working women and working men experience work-life balance and occupational stress.

#### **6.5** Recommendations for tertiary institutions

While the study showed that negative work life balance and positive work life balance may not necessarily diminish occupational stress, having a good work life balance however, can bring about positive health outcomes associated with greater psychological capital. Thus, with this in mind, universities should promote a good work life balance in order to bring positive health that is conducive to the university. In order to achieve this, universities can start by creating flexible work arrangements.

#### **6.6 Chapter Summary**

This study provided a discussion on the conclusions arrived. It also presented the limitations and recommendations of the study.

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# **Appendix 1: Instruments**

- 1.1 Biographical Questionnaire
- 1.2 Survey-Work Home Interaction Scale
- 1.3 Job Stress Scale
- 1.4 Psychological Capital Questionnaire
- 1.5 General Health Questionnaire

**Appendix 2: Document of informed consent** 

**Appendix 3: Letter of Permission to Organisations** 

**Appendix 4: Ethical Clearance** 

**Appendix 5: Proof of registration** 

**Appendix 6: Turnitin report** 

Please may you fill in this biographical data sheet. Indicate your responses by neatly placing a cross in the relevant box.

# Please specify your age

20-30	31-40	41-50	51-60	61+

### **Marital Status**

Single	Divorced	Married

# Citizenship

South African	International

# Working position held

Security staff	Cleaning Staff	Administrative	Academic staff	Management
		work		

# **Highest qualification obtained**

Grade 8-11	Matric	Bachelor's	Honours	Masters	PHD	Other
		Degree				

### Level of income per month

less than	R3000-	R6000-	R11000-	R16000-	R21000-	R31000+
R2500	R5000	R10000	R15000	R20000	R30000	

### **Number of Children**

None	1	2	3	3+

# Number of years working for the organisation

0-1	2-5	5-10	11-15	15-20	20+

# **Survey Work-Home Interaction Scale**

Please place an 'X" in the box that best applies to you. (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree).

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
You are irritable at home because your work is demanding?	1	2	3	4	5	6
2. You do not fully enjoy the company of your spouse/family/friends because you worry about your work?	1	2	3	4	5	6
3. You find it difficult to fulfil your domestic obligations because you are constantly thinking about your work?	1	2	3	4	5	6
4. You have to cancel appointments with your spouse/family/friends due to work-related commitments?	1	2	3	4	5	6
5. Your work schedule makes it difficult for you to fulfil your domestic obligations.	1	2	3	4	5	6
6. You do not have the energy to engage in leisure activities with your spouse/family/friends because of your job?	1	2	3	4	5	6
7. You have to work so hard that you do not have time for any of your hobbies?	1	2	3	4	5	6
8. Your work obligations make it difficult for you to feel relaxed at home?	1	2	3	4	5	6
9. Your work takes up time that you would have liked to spend with your spouse/family/friends	1	2	3	4	5	6
10. The situation at home makes you so irritable that you take your frustrations out on your colleagues?	1	2	3	4	5	6
11. You do not fully enjoy your work because you worry about your home situation?	1	2	3	4	5	6
12. You have difficulty concentrating on your work because you are preoccupied with domestic matters?	1	2	3	4	5	6
13. Problems with your spouse/family/friends affect your job performance?	1	2	3	4	5	6

14. You arrive late at work because of domestic obligations?	1	2	3	4	5	6
15. You do not feel like working because of problems with your spouse/family/friends?	1	2	3	4	5	6
16. You come home cheerfully after a successful day at work, positively affecting the atmosphere at home?	1	2	3	4	5	6
17. After a pleasant working day/working week, you feel more in the mood to engage in activities with your spouse/family/ friends?	1	2	3	4	5	6
18. You fulfil your domestic obligations better because of the things you have learned on your job?	1	2	3	4	5	6
19. You are better able to keep appointments at home because your job requires this as well?	1	2	3	4	5	6
20. You manage your time at home more efficiently as a result of the way you do your job?	1	2	3	4	5	6
21. You are better able to interact with your spouse/family/friends as a result of the things you have learned at work?	1	2	3	4	5	6
22. After spending time with your spouse/ family/friends, you go to work in a good mood, positively affecting the atmosphere at work?	1	2	3	4	5	6
23. After spending a pleasant weekend with your spouse/family/friends, you have more fun in your job?	1	2	3	4	5	6
24. You take your responsibilities at work more seriously because you are required to do the same at home?	1	2	3	4	5	6
25. You are better able to keep appointments at work because you are required to do the same at home?	1	2	3	4	5	6
26. You manage your time at work more efficiently because at home you have to do that as well?	1	2	3	4	5	6
27. You have greater self-confidence at work because you have your home life well organized?	1	2	3	4	5	6

# Job Stress

Below are statements that describe how you may think about how you may feel right now. Use the following scales to indicate your level of agreement or disagreement with each statement. (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree).

Working here makes it hard to spend enough time with my family	1	2	3	4	5	6
2. I spend so much time at work, I can't see the forest for the trees	1	2	3	4	5	6
3. Working here leaves little time for other activities	1	2	3	4	5	6
4. I frequently get the feeling I am married to the company	1	2	3	4	5	6
5. I have too much work and too little time to do it in	1	2	3	4	5	6
6. I sometimes dread the telephone ringing at home because the call might be job-related	1	2	3	4	5	6
7. I feel like I never have a day off	1	2	3	4	5	6
8. Too many people at my level in the company get burned out by job demands	1	2	3	4	5	6
9. I have felt fidgety or nervous as a result of my job	1	2	3	4	5	6
10. My job gets to me more than it should	1	2	3	4	5	6
11. There are many times when my job drives me right up the wall	1	2	3	4	5	6
12. Sometimes when I think about my job I get a tight feeling in my chest	1	2	3	4	5	6
13. I feel guilty when I take time off from job	1	2	3	4	5	6

# **PsyCap Questionnaire**

Below are statements that describe how you may think about yourself right now. Use the following scales to indicate your level of agreement or disagreement with each statement.(1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree)

	1		1	1	1	1
I feel confident analysing a long-term problem to find a solution.	1	2	3	4	5	6
I feel confident in representing my work area in meetings with management.	1	2	3	4	5	6
3. I feel confident contributing to discussions about the company's strategy.	1	2	3	4	5	6
4. I feel confident helping to set targets/goals in my work area.	1	2	3	4	5	6
5. I feel confident contacting people outside the company (e.g., suppliers, customers) to discuss problems.	1	2	3	4	5	6
6. I feel confident presenting information to a group of colleagues.	1	2	3	4	5	6
7. If I should find myself in a jam at work, I could think of many ways to get out of it.	1	2	3	4	5	6
8. At the present time, I am energetically pursuing my work goals.	1	2	3	4	5	6
9. There are lots of ways around any problem.	1	2	3	4	5	6
10.Right now I see myself as being pretty successful at work.	1	2	3	4	5	6
11. I can think of many ways to reach my current work goals.	1	2	3	4	5	6

12. At this time, I am meeting the work goals that I have	1	2	3	4	5	6
set for myself.						
15. I can be "on my own," at work if I have to.	1	2	3	4	5	6
16. I usually take stressful things at work in stride.	1	2	3	4	5	6
17. I can get through difficult times at work because I've	1	2	3	4	5	6
experienced difficulty before.						
18. I feel I can handle many things at a time at this job.	1	2	3	4	5	6
19. When things are uncertain for me at work, I usually	1	2	3	4	5	6
expect the best.						
20. If something can go wrong for me work-wise, it will.	1	2	3	4	5	6
21. I always look on the bright side of things regarding my	1	2	3	4	5	6
job.						
22. I'm optimistic about what will happen to me in the	1	2	3	4	5	6
future as it pertains to work.						
23. In this job, things never work out the way I want them	1	2	3	4	5	6
to.						
24. I approach this job as if "every cloud has a silver	1	2	3	4	5	6
lining.						
L .		L	1	1	1	1

# **General Health Questionnaire**

We would like to know how your general health has been over the past few weeks. Please answer all the questions by simply placing an X in the appropriate box (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree) Remember we would like to know about present and recent complaints, not those you had in the past.

### Have you recently:

1. been able to concentrate on whatever you are doing	1	2	3	4	5	6
2. lost much sleep over worry	1	2	3	4	5	6
3. felt that you are playing a useful part in things	1	2	3	4	5	6
4. felt capable of making decisions about things	1	2	3	4	5	6
5. felt constantly under strain	1	2	3	4	5	6
6. felt that you couldn't overcome your difficulties	1	2	3	4	5	6
7. been able to enjoy your normal day to day activities	1	2	3	4	5	6
8. been able to face up to your problems	1	2	3	4	5	6
9. been feeling unhappy and depressed	1	2	3	4	5	6
10. been losing confidence in yourself	1	2	3	4	5	6
11. been thinking of yourself as worthless	1	2	3	4	5	6
12. been feeling reasonable happy, all things considered	1	2	3	4	5	6