

UNIVERSITY OF KWAZULU-NATAL

**The impact of job stress on employee performance: Evidence
from female academics at the University of KwaZulu-Natal**

By

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degree of
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DECLARATION

I, Chinomso Obidiegwu, declare that:

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- (ii) This dissertation has not been submitted for any degree or examination at any other university.
- (iii) This dissertation does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from the other person
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DEDICATION

First, I dedicate this dissertation to God Almighty who made it possible for me to start and complete this Masters programme.

Secondly, I dedicate this research to my amazing daughters, Nicole and Gemma Obidiegwu.

ABSTRACT

Job stress is a regular occurrence in everyday work life situations and females in academia are not an exception to this fact. It has been suggested by numerous studies that job stress will continuously be on the rise due to various factors such as career advancement, technological advancements and changes in the business environment of organisations. The present day academic environment has moved from the old ways of doing things to more technologically and research based ways. Increasingly, the academic's job profile has extended beyond teaching and learning to include research and publications, supervision, consultation and administration and so forth, thus, resulting in increased stress levels in academics, more especially for female academics who have to include various domestic obligations to their workloads.

Given this background, the study aims to examine the impact of job stress on female academic performance. The study focused on female academics who are full-time permanent employees at the University of KwaZulu-Natal (UKZN). The Pietermaritzburg (PMB) campus of UKZN was considered for the study site. The research explored the impact of job stress on these female academics and investigated the strategies these academics use to achieve work-life balance. The study is a quantitative study, where data was collected from 54 respondents and analysed using the Statistical Packages for Social Sciences (SPSS) version 25. The findings of the study show that workload remains a stressor in an academic environment. Time allotment continues to pose as a challenge. Because of the work overload, the associated stress affects the health and motivation of the female academic staff. The findings also suggested that gender has no significant relationship with workload. Thus, the researcher recommended a review of incentives, time to time conduct surveys to measure the organisational stressors and determine a proactive solution and core awareness on stress management strategies.

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LIST OF ABBREVIATIONS

BCEA	Basic Conditions of Employment Act
HEI	Higher Education Institutions
KZN	KwaZulu-Natal
LRA	Labour Relations Act
OHS Act	Occupational Health and Safety Act
PMB	Pietermaritzburg
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
UKZN	University of KwaZulu-Natal

CHAPTER ONE

GENERAL OVERVIEW OF THE STUDY

1.1 Introduction

Today's business environment is undergoing a tremendous change, as is the nature of work being done in this environment. The Higher Education landscape is continuously changing to keep up with the challenges posed by this environment. These changes have prompted a shift in the traditional work of academics, thus incorporating more workload and as a result, increasing the stress associated within the academic environment. Sparks, Faragher, and Cooper (2001), described job stress as a significant issue affecting employees of the 21st century in various work-places. According to Finney *et al.* (2013), work-place stress usually affects 19% to 30% of employees who are in the entire working population. Literature suggests that most academics are subject to work related stress, social and personal issues (Abdel Rahman, Al Hashim, Al Hiji & Al-Abbad, 2013; Yusoff & Khan, 2013). Similarly, Nabirye, Brown, Pryor and Maples (2011) states that research studies prove that females are prone to stress irrespective of the work sector they belong to.

In view of the aforementioned, this chapter provides a general overview of the study and the problem statement of the study. In addition, the chapter provides the main and subsequent research questions and the objectives of the study. The chapter also presents the justification for the study and the significance thereof. The preliminary literature review and research methodology are also presented as well as the preliminary research methodology. The chapter ends with an outline of the entire dissertation followed by the conclusion.

1.2 Research background of the study

Recent times have seen academic environments drastically move from the traditional academic job of teaching and learning to more research-related activities. Higher education institutions have continued to use teaching/learning and research/publication as key performance indicators for academics. As a result, nowadays, the academic work which was originally considered stress-free has been engulfed with greater levels of stress (Gillespie *et al.*, 2001; Tytherleigh 2003; Tytherleigh, Webb, Cooper & Ricketts, 2005; Barkhuizen, Rothman & van der Vijver (2008), thus witnessing a growth in the academic work-place pressure on a daily basis. Managing job stress, especially academic-related stress, has remained a global concern (Hall & Bowles, 2016; McCarthy, Song & Jayasuria, 2017). Such stress which manifests from work pressure is linked to various interrelated factors, which may include the nature of the work environment, the nature of the job and the individual's personality. Stress can be derived from different factors including an unduly heavy work load, unsafe working conditions, unhappy clients, over-demanding colleagues and un-cooperative co-workers, Globally, within the

academic environment, the intensification of work is witnessed by the increasing number of students being admitted on a yearly basis and universities emphasising research and publications (McCarthy *et al.*, 2017, Kenny & Fluck 2017; Riddle, Harmes & Danaher, 2017; Paewai, Meyer & Houston, 2007). The replica effect is increasing workloads for academics, a trend which is not different within the South African purview (Harley 2017; Portnoi 2015; Barkhuizen & Rothmann 2008).

Given that changes in society have created gender neutral boundaries for professions, an increasing number of females are found within the university system holding various positions from lecturers to professors. With South Africa being ranked the second most stressed nation in the world (Bloomberg, 2018), this study sets out to examine whether female academics at University of KwaZulu-Natal (UKZN) experience job stress and how female academics at UKZN then manage their core activities to ensure work-life balance.

1.3 Statement of the problem

Stress is a prevalent problem in society and the resultant effects are numerous, ranging from low productivity to increased absenteeism, high rates of job turnover, depression, mental instability, cardiovascular illness as well as problems with the general wellbeing of an employee (Grobler, Warnich and Carrell, 2014). The issue of job stress has become a regular occurrence in the everyday work situation and females in academia are no exception. It has been suggested by numerous studies that job stress within the academic environment will continuously be on the rise due to factors such as employees' desire for career advancement; the increasing rate of student turnover in academic institutions; and the need for research directed at economic and societal development (Reddy, Menon and Thattil, 2018; Khamisa, Oldenburg, Peltzer, & Ilic, 2015). Furthermore, academics undergo stress due to considerably heavy workloads, limited resources and inadequate organisational support; dealing with students and co-workers; poor career progression, as well as poor staffing, (Siakwa & Grace, 2014). In addition, Coleman (2012) notes that female academics face diverse challenges relating to work and personal lives. Thus, the stress level tends to increase for those female academics who adopt domestic roles in addition to their official workload. Pre-1994 in South Africa, employers could get away with not having many females in the work-place but with the Employment Equity Act, employers are now obligated to have equal gender representations (ILO, 2019). This idea has seen increased female representation within academia.

According to Barkhuizen and Rothmann (2013), the performance of an individual is also affected by other external stressors that may not be work related, including poor financial status and lack of sleep caused by anxiety over what the future holds. The manner in which individuals handle the effects of stress will determine how efficiently the stressful situations are managed and resolved. Given this

background, the current study seeks to understand the implications of job stress on employee performance. Focusing on female academics at UKZN, the researcher investigates the stress management strategies employed by female academics in finding a balance between work and life. The study investigates how job stress impacts or affects female academics at UKZN.

1.4 Research questions of the study

This section covers both the primary and secondary research questions of the study. The primary research question for the study is: “What is the impact of job stress on female academic employees at the University of KwaZulu-Natal, Pietermaritzburg Campus?”

The following sub-research questions derived for the study are:

- What are the implications of job stress on the performance level of female academics?
- What are the determinants of job stress for female academics at the University of KwaZulu-Natal?
- To what extent does job stress contribute to job dissatisfaction amongst female academics?
- To what extent does job stress affect the personal lives of female academics at the University of KwaZulu-Natal?

1.5 Research objective

The study comprises primary and secondary research objectives. The primary research objective of the study is to examine the impact of job stress on female academic employees at the University of KwaZulu-Natal, Pietermaritzburg Campus.

The subsequent research objectives emanating from the primary objective of the study are:

- To ascertain the implications of job stress on female academic performance levels;
- To ascertain the causes of job stress amongst female academic employees at the University of KwaZulu-Natal;
- To determine the extent to which that job stress contributes to job dissatisfaction in female academics; and
- To ascertain the extent to which job stress affects the personal lives of female academics at the University of KwaZulu-Natal.

1.6 Justification and Significance of the study

Although extensive studies on job stress amongst academics in Higher Education Institutions (HEI's) in South Africa have been conducted, they rarely focus on female academics at the university level. A

detailed review of literature showing evidence of this gap is presented in chapter 2. As a result of the existing gap in literature, this study focused specifically on female academics in a university setting. Such studies have been rare within the academic discipline despite the on-going transformation in the HEI sector. It is therefore necessary to understand how female academics strike a balance between work and life. Findings of such studies not only add to the existing body of knowledge, but rather bridge the gap between policy and practice. It is also important to have knowledge of how stress impacts on female academics at UKZN in order to encourage the university management in making informed decisions on employees' welfare. In addition, the study contributes to the literature in the area of job stress and therefore contributes to the body of knowledge in this domain.

1.7 Preliminary Literature review

The reviewed literature presented in Chapter 2 of this dissertation, covers the general concept of job stress which includes; definitions, types, causes, management strategies, performance conceptualization and culture, as well as background information on the research study site, which is UKZN's PMB campus. Specifically, job stress within the academic environment is brought into context, covering aspects such as sources of academic/workplace stress, causes of job stress amongst academics and managing stress in the changing academic environment. Thereafter, the gaps in previous studies on stress in the workplace is followed by a section on the theoretical models and frameworks that guide the study. The models as presented in the chapter are the Transactional model of stress and Hertzberg's two factor theory. In addition, relevant South African legislation is discussed in the chapter namely, the Employment Equity Act No 55 of 1988, the Labor Relations Act 66 of 1995 (LRA), the Basic Conditions of Employment Act 75 of 1997 (BCEA) and the Occupational Health and Safety Act No 85 of 1993 and 181 of 1993.

1.8 Preliminary Research methodology

A preliminary literature review section demonstrates early on, and rigour in the systematic review of literature (Rhodes University, 2014). Systematic review is applied across disciplines and refers to a way of synthesizing research findings in a systematic, transparent, and reproducible way (Snyder, 2019; Davis et al., 2014). In line with this definition, this section briefly explains the process and the technique used in this study. The study focused on identifying the implications of job stress for female academic employees at UKZN's PMB campus. The study adopted an exploratory research design and a positivist research paradigm. Furthermore, the researcher used a quantitative research approach and cluster probability sampling method. The target population was 70 female academics and the researcher personally administered 70 closed-ended questionnaires but retrieved only 54 usable questionnaires from the respondents. The data was further analyzed with the Statistical Package for Social Science

(SPSS) version 24. The research study site is the University of KwaZulu-Natal, Pietermaritzburg campus. Chapter 3 of the dissertation provides detailed information on the research methodology.

1.9 Outline of the study

This section provides a synopsis of the chapters covered in the dissertation.

1.9.1 Chapter 1: Chapter one commences with the introduction followed by an overview of the study. The problem statement, research questions and the research objectives are then presented, as this is the preliminary literature review and research methodology. An outline of the entire study is also presented in this chapter.

1.9.2 Chapter 2: This chapter provides a review of the literature on job stress that is related to this study. Types of stress, stress in the academic context, the management of stress on the academic environment, performance conceptualisation, change and information on the research study site are discussed this chapter which also explains the models and theories underpinning the study namely the Transactional framework on stress and Herzberg's Two factor theory. This chapter also delineates the relevant South African legislation applicable to this study, namely, the Employment Equity Act No 55 of 1988, the Labor Relations Act 66 of 1995 (LRA), the Basic Conditions of Employment Act 75 of 1997 (BCEA) and the Occupational Health and Safety Act No 85 of 1993 and 181 of 1993. This chapter concludes with an identification of the research gaps on stress.

1.9.3 Chapter 3: Chapter three is the methodology chapter and it explains the method according to which the research was carried out. This chapter commences with an introduction followed by the research philosophy, research design, research approach of the study, the research study site, sampling method that was adopted in the study and the justification of the sampling method. The target population for the study is also explained in the chapter, as is the sampling size, data collection and data analysis. The validity and reliability as well as the ethical consideration are also explained in this chapter.

1.9.4 Chapter 4: The outcomes of the four research objectives of this study is presented and explained in this chapter.

1.9.5 Chapter 5: The final chapter of this dissertation presents the conclusion on all the four research objective of the study; makes recommendation for future studies; recommendation for female academics on UKZN's PMB campus, recommendation for UKZN management; and describes the limitations encountered during the study.

1.10 Summary

Increasingly, job stress has become a recurring and problematic issue within organisations. The need to manage employees' job-related stress remains a crucial aspect of management. With the dynamic

changes in the higher education landscape; managing job stress remains a priority for the effective and efficient management of academics.

Within the scope of this study and beyond the introductory section, the chapter outlines the problem statement, building on the on-going issue about employee well-being especially in the academic environment. Furthermore, the chapter describes the specifics such as the study's research questions and objectives justification/significance of the study. A preliminary literature review and research methodology adopted for the study is featured in this chapter. The final section includes a summary of what is covered in each of the chapters. In the next chapter, Chapter Two, the notion of stress within the academic environment is clarified in a detailed scholarly discussion.

CHAPTER TWO

LITERATURE REVIEW ON RELATED ASPECTS OF STRESS

2.1 Introduction

According to Shufang (2006), a literature review is defined as the systematic identification and analysis of related aspects and topics of research problems, emerging from research related publications. Montana Education (2018) states that the literature review helps the researcher to determine previously published studies in relation to the topic. Such a review provides not only more insight into the research problem but also identifies existing gaps in the knowledge economy. Changes in the 21st century work environment have triggered transformation in the academic system globally, prompting a shift from a less research-intense to a more research-based academic activity. This impact reflects in the increasing work load for academics commonly practiced in HEIs. Such a scenario has resulted in increasing work-related stress which Fink (2017) posits to be emerging from difficulties in environmental adjustment in the form of emotional tension, discomfort and anxiety.

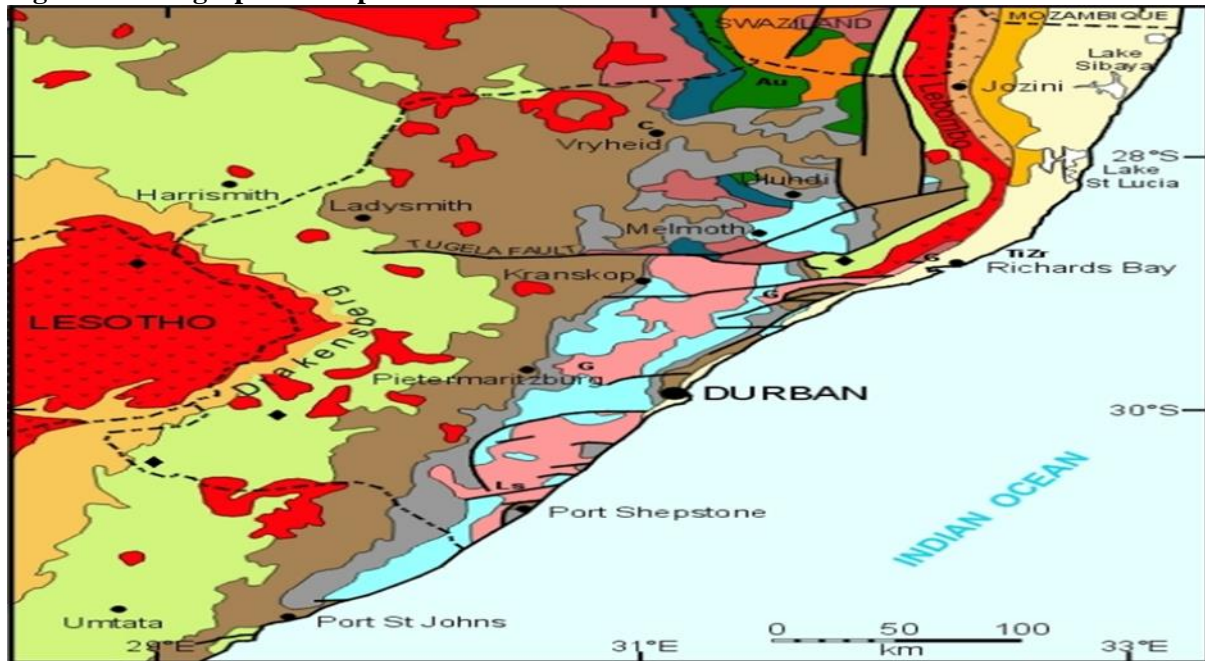
Given the above, this chapter centres on a review of relevant literature on the study's focus area. In addition, the chapter provides an overview of the research study site which in this case, is the University of Kwazulu-Natal's PMB campus. The adopted theories of the study, which are the Transactional model of stress and coping and Herzberg's Two-factor theory of motivation are reviewed, followed by the South African labour legislative framework. The latter addresses three Acts considered relevant to the study, which are the Labour Relations Act 66 of 1995, Basic Conditions of Employment Act 75 of 1997 and the Occupational Health and Safety Act 85 of 1993. Furthermore, literature presented covers the concept and nature of stress; responses associated with stress; the context of job stress; and its impact and sources. In addition, information is presented on management strategies; stress in relation to the performance of both employees and employers; and the study's research gap. Finally, concluding thoughts are offered.

2.2 Background information on the research study site

The research study site, the University of KwaZulu-Natal (UKZN) Pietermaritzburg Campus, is located within the province of KwaZulu-Natal (KZN). According to South African History Online (SAHO 2019), KZN is a coastal province known for its beaches, mountains as well as its savannah. There are other tourist attractions which include the KZN botanical gardens situated in Pietermaritzburg. SAHO (2019) states that KZN consists of three unique geographical areas, which includes the low land Indian Ocean, the coastal region and the central Natal midlands. The province of KwaZulu-Natal is also known as the homeland of the Zulu people (SAHO, 2019). Pietermaritzburg is the capital city of KZN, while

the biggest city is Durban. Durban is the port city of KwaZulu-Natal which dates back to 1824 when the British traders traded on the shores of the bay of KZN (SAHO 2019). According to SAHO (2019), King Shaka founded the historic kingdom of KZN which is the heart of Zululand and also presently the heart of the KZN province. A geographical map of KZN is presented in Figure 2.1.

Figure 2.1 Geographical map of KwaZulu-Natal



Source: STEC @ UKZN (2019)

The University of KwaZulu-Natal is amongst the biggest and most reputable universities in South Africa and is located within the province of KwaZulu-Natal. It was formed on 1 January 2004 as a result of the merger between the University of Durban-Westville and the University of Natal. The new university brings together the rich histories of both the former universities. (UKZN, 2018). UKZN is ranked amongst the top 500 universities in the world (Times University Ranking, 2019); 1st in the Africa Times Higher Education World University Ranking (2019); and one of the top 8 universities in South Africa (QS World University Ranking, 2019). These ratings result from the university's commitment to academic excellence, innovative research and critical engagement and its vision of becoming the premier University of African scholarship (UKZN, 2018). The University of KwaZulu-Natal has five campuses located at Pietermaritzburg, Westville, Howard College, Edgewood, and the Nelson Mandela School of Medicine (Medical School). A photograph of UKZN's Pietermaritzburg Campus is presented in Figure 2.2.

Figure 2.2 UKZN's Old main Building on Pietermaritzburg campus



Source: UKZN (2018)

The University of KwaZulu-Natal is very committed to staff welfare as is evident in the wellness programmes that promote the physical, mental and social wellbeing of its employees (UKZN, 2013). The UKZN (2013) statement of being an employer of choice reflects in its work environment which promotes a healthy and engaged workforce with the aim of minimizing stress. The purpose of employee wellness programmes is to ensure an optimal state of health and balanced lifestyle. This encourages employees take increased responsibility for their health and well-being.

Historically, females were under-represented in most organisations in South Africa. However, with the emergence of gender mainstreaming, various organisations including HEIs are witnessing an increase in the female workforce. UKZN is not an exception to the norm and has witnessed in its transformational journey more female academics across levels of management. As such, the researcher was motivated to understand how these female academics at UKZN manage work-related stress, and beyond.

2.3 Theoretical models of stress and the legislative basis of the study

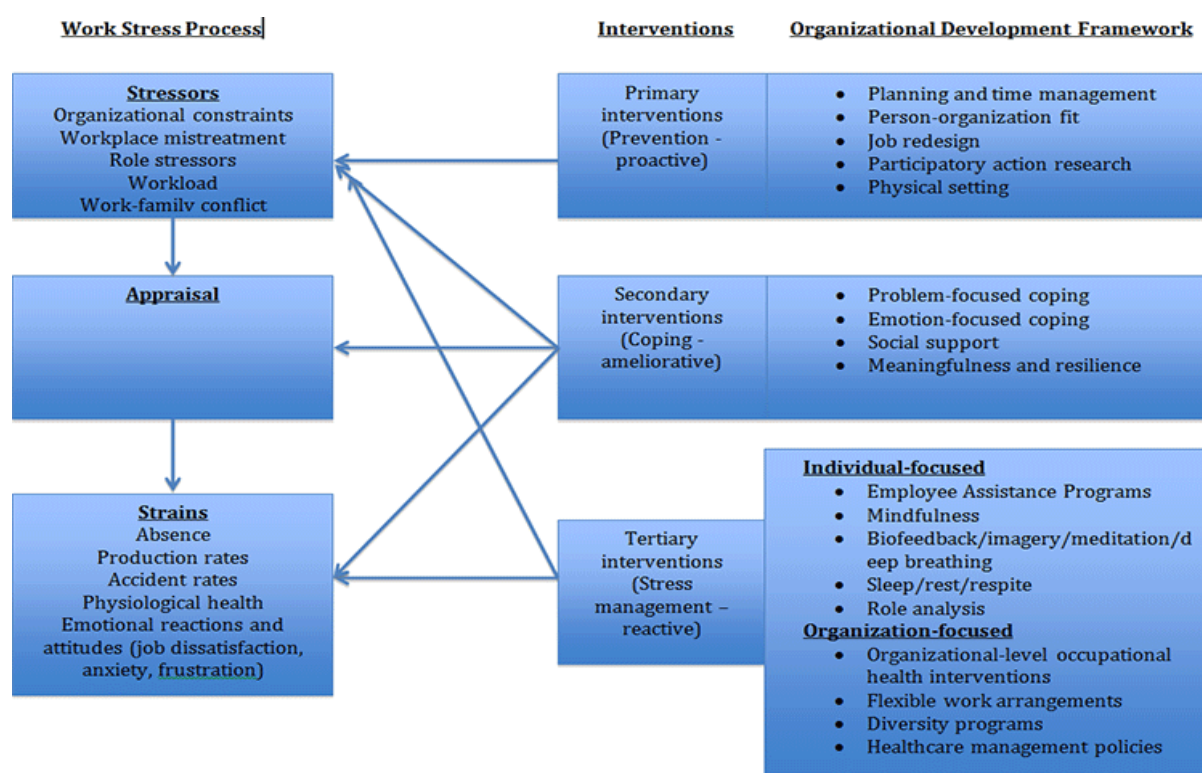
This section provides literature on the theoretical models and legislative frameworks adopted for this study. According to Nilsen (2015), a model is a deliberate simplification of a phenomenon or a specific aspect of a phenomenon. Frankfort-Nachmias and Nachmias (1996), noted that though models can be described as theories with a more narrowly defined scope of explanation; models are more descriptive in nature. It is used for a better understanding of the issue that is being reviewed, based on previous data. Researchers have highlighted the need for accurate representation of a model (Cairney 2012; Carpiano 2006). The theoretical models adopted for the study are the Lazarus and Folkman's

Transactional model of stress and coping, and Herzberg's Two- factor theory of motivation. Many studies in humanities and social sciences have incorporated these two theoretical models of framework in research pertaining to job stress (Al-Ghamdi 2017; Essiam, Mensah, Kudu, and Gyamfi, 2015; Solufuwe, Akinsolu & Ogbudinkpa 2015; Desa, Adebisi, Yusoff, Ibrahim. Kadir & Ab Rahma, 2014; Adebisi, 2013). The South African legislations covering the research focus area are the Labor Relations Act, the Basic Conditions of Employment Act and the Occupational Health and Safety Act.

2.3.1 Lazarus and Folkman's Transactional model of stress and coping

According to Folkman and Lazarus (1984:19), the Transactional model states that stress is "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being". The model focuses on mechanisms for coping with stress. This view of Folkman et al (1986) highlights the importance of moderators between a stressed person's environment and their immediate and long-term outcomes. In view of this, the study adopted a conceptual framework underpinned by the Transactional model of stress developed by Lazarus and Folkman in 1984. According to Matthieu and Ivanoff (2006:337) the 'framework integrates stress, appraisal, and coping theories in relation to individuals' reaction to stressed psychological state and environments'' (See Figure 2.3).

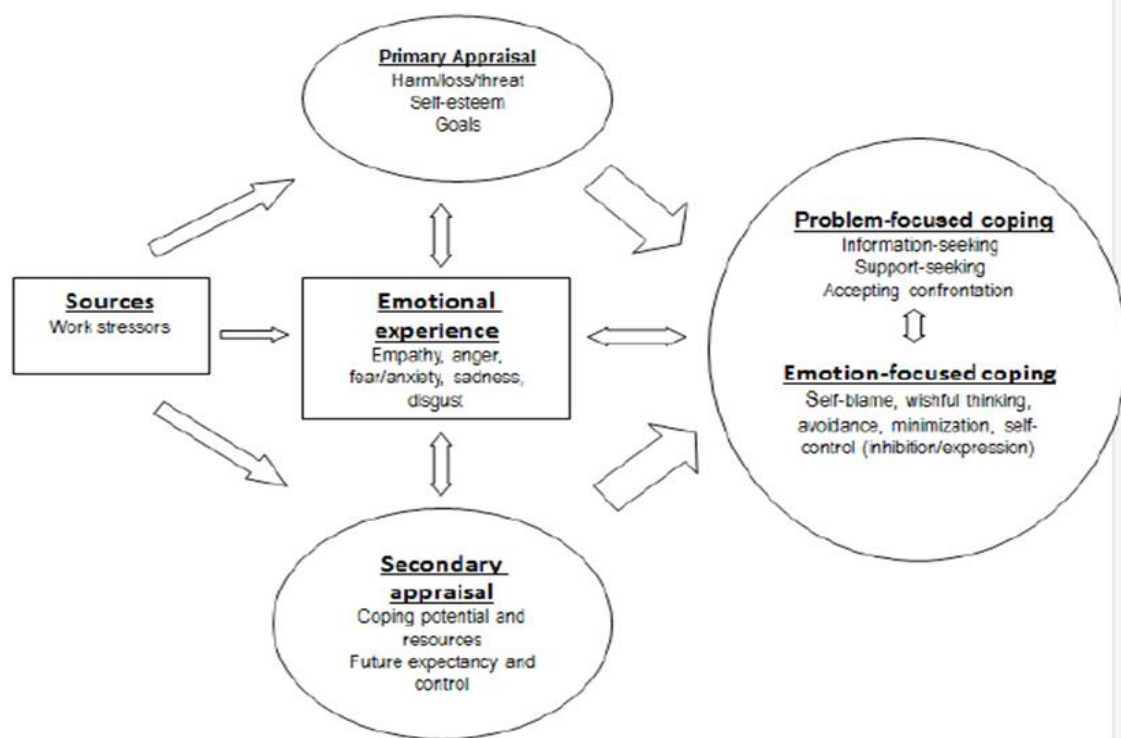
Figure 2.3 Transactional model of stress and coping



Source: Oxford Research Encyclopaedia (2017)

Accordingly, these scholars viewed stress from two components namely environmentally and psychologically which they regard as being related. A stressor is seen as an input from an external event and addresses that which happens within an individual's environment that stimulates stress. This interconnects with the state of mind of the individual and translates to an overwhelming feeling of the situation, in this case psychologically-related stress (Park, 1997). Intermittently, the stimuli from the environment results in a state of action that triggers an individual's feelings of being overwhelmed, thus transcending to psychological stress or an inability to cope with the present situation (Lazarus & Folkman, 1984). These components are diagrammatically represented in Figure 2.4

Figure 2.4 Lazarus and Folkman's Transactional model of stress



Source: Lazarus and Folkman (1984)

In Figure 2.4, the primary appraisal stage reflects that the individual has an analysis of the stressful situation, indicating the extent, coping ability and the extent of harm anticipated (Park, 1997). This stage reflects the rating of the stress which may be positive, irrelevant or not dangerous. The resultant effect of the primary appraisal reflects in the secondary appraisal stage, represented as either the experience of stress or the stress response or both. Florida (2011) asserts that at the secondary appraisal stage, individuals make an analysis of the availability of resources such as support, self-will, inner strength, control over emotions and self-efficacy. In the event of insufficient support, the outcome becomes stressful, leading to the emission of a coping strategy for the individual and with the work

environment. The implication thus shows that the transition of survival of humans from stress could be cumbersome due to the constantly changing environment (Florida, 2011).

2.3.2 Herzberg's Two-factor theory of motivation

According to Herzberg, Mausner and Snyder, (1959), the two-factor or dual-factor theory which can also be referred to as motivation-hygiene theory was influenced by Maslow's hierarchy of needs. Hollway (1991), notes that the Two-factor theory identified factors influencing people's attitudes towards work which determines levels of an individual's satisfaction and dissatisfaction. Herzberg classified these factors into motivation factors and hygiene factors. The factors addressing individuals' satisfaction are mostly referred to as motivators or satisfiers. Motivators are intrinsic in nature and relates to the job content (Herzberg et al 1959). Alshmemri, Shahwan-Akl and Maude, (2017), opined that motivation factors lead to job satisfaction because of the need of the individual for self-growth and self-actualisation. Such factors may include recognition, achievement, personal growth, advancement, responsibility and the job's meaningfulness (Hollway, 1991). Similarly, the factors that relate to the need to avoid unpleasantness (Alshmemri, et al (2017) or dissatisfaction are mostly referred to as hygiene factors or dissatisfiers (Kwasi & Amoako, 2011). The examples of hygiene factors are good working conditions; better supervision; salary; work-based relationships amongst peers and other employees; job security; and consistent management policies. As such, these factors replicate the context of the job.

Thus, the Herzberg dual-factor theory is aimed at understanding the relationship between people's motivation and their job satisfaction. In linking this theory to the issue of job stress, it has been established that job stress emanates from a number of factors namely, job dissatisfaction, uncooperative colleagues and coworkers and excessive workloads (Mate Siakwa, 2014). Bringing into context the hygiene factors, motivation is triggered by dissatisfaction. Factors not handled properly which may trigger dissatisfaction include salaries, compensation, employee benefits, organizational policies and structures, employee assistance programs, working conditions, job security and interpersonal relations. Therefore, lack of hygiene factors in an employee's work environment could result in stress in the long-run because the personal expectations toward these achievements and personal growth are not met.

2.3.3. The relevant South African legislative frameworks

This section covers the South African labour legislation considered relevant to this study. According to Swanepoel, Schenk and Tshilongamulenzhe (2014), legislative frameworks are laws designated to guide the workforce. The implementation of this legislation is deemed necessary to maintain fair labour practices within South African organizations. For the purpose of this dissertation, only the labour legislation appropriate to the study are discussed in detail, namely: the Employment Equity Act No. 55

of 1988, the Labor Relations Act 66 of 1995 (LRA), the Basic Conditions of Employment Act 75 of 1997 and the Occupational Health and Safety Act 85 of 1993.

The Employment Equity Act No. 55 of 1988 was introduced as a result of racially apartheid and discriminatory laws and practices. The purpose of the act was to promote equal opportunities and fair treatment of all citizens; and the use of affirmative action to redress the disadvantages experienced by groups pertaining to employment, occupation and the labour market (DoL, 2004). The Employment Equity Act is relevant within the context of South Africa because it improves standards, fairness and trust amongst other affirmative action measures.

The Labour Relation Act (LRA) 66 of 1995 is a South African law that primarily addresses economic development, social justice, labour peace and the enhancement of democratisation in the workplace (Department: Employment and Labour DEL, 2018). The aim of the LRA is to provide a framework for collective elements of people and their work (DEL, 2018). In addition, the LRA workplace forum is implemented in an organization to promote the interest of all employees, enhance efficacy at work and ensure that all employees participate in joint decision-making about matters that affect them (du Plessis and Fouche, 2015). Furthermore, the LRA provides relevant information addressing employees, employers and trade union rights. From the employee's perspective, the Act allows one to air views pertaining to the job context, which may negatively contribute to stress levels negatively.

According to Swanepoel et al (2015), the Basic Conditions of Employment Act addresses the legal relationship between the employer and the employee. The functions of the BCEA include the regulation of minimum conditions in the areas of working times of employees, which includes their meal breaks, daily and weekly recreation periods and working overtime (du Plessis and Fouche, 2015). Similarly, Swanepoel et al (2015) mentioned that the Act also regulates how work should be conducted on Sundays, public holidays as well as determining all form of leave which includes annual, sick, maternity and family responsibility leave. Another aim of the BCEA is to regulate how and when employees receive remuneration of their pay and also how much notice period is appropriate before any employees contract of employment is terminated (Swanepoel et al 2015). Thus, the BCEA ensures adherence to contracts of appointment, which may include amongst other features, appropriate working hours.

The aim of the Occupational Health and Safety Act no 85 of 1993 (OHSA) is to ensure that employees work under safe working condition and in a safe and healthy environment (DEL, 2018). According to the Government Gazette (1993), OHSA protects employees working with machinery and hazardous substances and provides an advisory council for OHS in organizations (Government Gazette 1993). Mchunu (2012) asserts the need for policies such as Work-place Health Promotion (WHP) for

promoting employees' health and welfare. The WHP programs cover HIV/AIDS testing, management programs, diabetes, hypertension testing, counselling programs, financial advice and wellness and recreational programs, such as gym facilities in the work-place (Mchunu, 2012). This piece of legislation thus indirectly helps protect employees against stressors. With OHSWA being implemented in an organization, the work-place therefore becomes less stressful.

2.4 The Concept and Nature of Stress

The concept of stress was first coined by Selye (1979) from a personal encounter underpinning the nonspecific signs and symptoms of illness. Selye (1979), views stress as the non-specific response of the body to any demand on it. Since then, developments or research into the ideology of stress has prompted various dimensions of stress. While Kinman and Jones (2005), noted the lack of consensus on conceptualisations of stress amongst academics, Stranks (2015), mentioned that a number of different personal, social, environmental and work related factors can be used in defining and interpreting the meaning of stress. In some analysis of the concept of stress, Brooker and Eakin (2001), suggest that power or control in relation to gender and class are related to stress, while Page et al., (2013) noted that stress can be perceived as a feminine trait associated with weakness. In view of these dimensions of stress, Tan and Yip, (2018), noted that stress is not a psychological term but rather a choreographed state of events, encountered by all individuals during a period of illness. Furthermore, Leung, Chan and Chen, (2012) viewed stress as a psychological state of mind which results from demands put on a person's body. Given all these viewpoints, Pitt, Oprea, Tapia and Gray, (2018), noted that the experience of stress is dependent on an individual's subjective appraisal of a situation and remains an inevitable, normal and requisite result of being alive.

Extant literature has shown dual implications of stress to individuals and sometimes organizations (Yu-Fei (Melissa), Ismail, Ahmed & Kuek, 2012; Ismail, Yao, Yeo, Lai-Kuan, & Soon-Yew, 2010), commonly referred to as distress and eustress (Lazarus and Folkman 1984). The negative characteristics of stress exist when individuals are unable to cope with the externally driven demands placed on them which ends up increasing the physiological and psychological stress (Ismail et al., 2015). In essence, distress is mostly represented as threats and harmful effects (Kozusznik, Rodriguez & Peiro, 2012). Some common examples of distress which are also applicable to academic staff are sickness, unpleasant lifestyle, inability to control feelings of anxiety, and passivity. Though the definitions presented earlier provided mostly a negative connotation about stress or distress, Farler and Broady-Preston (2012), highlighted that sometimes, stress can bring out goodness. Such goodness is considered positive when stress leads to success in fulfilling the needed demand (Kupriyanov & Zhdanov 2014; Szalma & Hancock 2008). In such a case, it is mostly referred to as eustress and are less likely to be discussed (Mesurado et al. 2016; O'Sullivan 2011). According to O'Sullivan (2011), eustress allows for the

positive process of responding to the stress as well as a positive outcome. It occurs when individuals manage the externally driven demand placed on their physique which tends to decrease both physiological and psychological stress (Leung et al., 2012; Yu-Fei et al. 2012; Ismail et al., 2010; Gachter et al., 2011). From a general perspective, examples of eustress include but not limited to having a pleasant life, being able to control feelings of anxiety and being proactive. Similarly, from an academic point of view, a positive response to stress for academic staff may include intense research and supervision, and working hard teaching and learning. The outcome is positive when the output of the research shows in the anticipated number of publications, successful graduation of postgraduate students and an improved and quality student pass rate. In essence, the determination of the good kind of stress and the bad kind of stress rests on how it effects the individual. Scholars noted that while good stress addresses the challenges and deadlines which pushes the employees out of their comfort zone to work hard, learn new things and be more productive in the organization, bad stress is the reverse.

Given the foregoing, stress can be viewed from two dimensions; physiological stress and psychological stress (Beehr & Glazer 2005; Lazarus & Folkman 1984). Physiological stress relates to the physical reaction of the body to stress (Ismail et al., 2010; Newell, 2002). Examples of physiological stress are headaches, migraines, abdominal pain, lethargy, backache, chest pain, fatigue, heart palpitation, sleep disturbance and muscle ache. These symptoms directly and negatively affect an individual's productivity, effectiveness, quality of work and personal health (Ismail et al., 2010; Newell, 2002). Similarly, Lazarus and Folkman (1984:19) noted that "psychological stress refers to a relationship with the environment that a person appraises as significant for his or her well-being and in which the demands tax or exceed available coping resources". According to Reddy (2011), psychological stress is exhibited as an emotional reaction where the individual shows symptoms (like anxiety and depression, burnout, job alienation, hostility, tension, anger, anxiety, nervousness, irritability and frustration) as a result of the stimuli at the workplace. In essence, Haines and Saba (2012), suggested that psychological stress is associated with one's role identity.

2.5 The Context of Job or Workplace Stress

According to Burman and Goswami (2018), job stress is also termed work or occupational stress. Within the limits of this dissertation, work, job and occupational stress were used interchangeably. Burman and Goswami, (2018:112) noted that, 'We are currently living in stressful times holding down two or more jobs, building and trying to hold up unreasonable performance parameters which all result in higher stress levels'. Drawing from this excerpt, pressure at the workplace is increasingly becoming unavoidable due to the demands of the contemporary work environment (WHO, 2007). Workplace stress is a major concern for both the employer and the employees. It is a common term with various dimensions to its meaning. According to Bharathi and Gupta (2017), job stress refers to the harmful physical and emotional responses that occur when the requirements of the job do not match the

capabilities, resources or needs of the worker. Accordingly, Bhatti, Muhammad, Muhammad, Hashim, and Zubair, (2016), see job stress as the way in which an individual reacts towards aspects of the work environment that seem to be emotionally and physically threatening to him or her. These definitions show that job stress is simply the way an individual interprets his/her work environment, considering the present circumstance of being able to cope with it or not (Gupta, Rao & Mukherjee, 2015). Hasseb and Satter (2018), added that job stress can be triggered by recent changes in the work environment. The cost of workplace stress to both the employer and the employee has drawn increasing research interest in the discipline of management sciences and beyond (Arshadi & Damiri, 2013; Webster, Beehr & Christiansen, 2010). This is because of the idea that a workplace is a community of practice which portrays a sense of identity and belongingness for the parties involved (Farler and Broady-Preston 2012). The three main stressors according to Lazarus et al (2009), emanating from workplace stressors are relationship with work colleagues, organizational constraints and workload. In view of Siakwe and Grace (2014:33), workplace stressors are categorized into six components which are “stress on the job itself, role-based stress, relationships, career development factors, organizational structure and climate, and the work-family interface”. Given these sources of workplace stressors, relationship plays a vital role in an employee’s life because good relationships between co-workers tends to boost employee morale, while a poor relationship keeps the employee on edge (Jonker, 2016). In addition, Dwamena (2012) suggests that team work acts as a support system, but a lack of team effort and support depletes employees’ energy, which creates an avenue for stress for employees in the workplace. Organisational constraints could be in the form of a specific organisation’s style of management, culture and policies. The communication flow within these channels, if not well managed may result in stress. Jonker (2016) notes that the structure and the climate of the work-place in some cases could induce stress for the employee due to miscommunication along the channel. Thus, stress emerging from the organisational structure and climate causes constraints and in some cases limits employee performance (Jonker, 2016; Dwamena, 2012). Moreover, Jonker (2016), noted that the lack of proper role definition by employers results in role conflicts which is likely to lead to stress because the employees are caught up with executing roles that are not theirs resulting in excessive workload.

Furthermore, stressors may manifest (as a strain, depression, fretfulness, anxiety, angst), thus affecting the employees and the performance of the organisation (Ahmad Ezane et al., 2012). For Mursali, Basuki and Dharmono, (2009), work related stress is harmful when the physical and emotional responses occur as a result of a mismatch between job requirements and the workers’ capabilities, resources, or needs. Ismail et al., (2015), note that workplace stress exhibits when employees’ knowledge, skills, abilities and attitudes cannot cope with or do not match work demands and organisational pressures. This may therefore decrease the ability of the individual to control and manage physiological and psychological stress (Basowitz, Persky, Korchina & Grinker, 1995; Keshavarz & Mohammadi, 2011). Of significance, is that “the workplace makes a variety of demands on people and too much stress over too long a period

of time will exhaust their ability to cope with those demands” (Jaroslav & Miroslav 2015: 164). As such, it affects both the individual and the organizational issues in the form of behavioural, mental, physical outcomes, performance, job satisfaction, and organisational commitment (Beheshtifar, Hoseinifar & Moghadam, 2011). Within the academic environment, work stress is triggered along the lines of role ambiguity, conflict, work overload or work underload and communication. Controlling these stressors has remained a challenge within academia because of the nature of work involved.

2.5.1 Academic Workplace Stress

Stress has been a growing concern in organisations and an important topic of discussion within the academic circles as well as in society. With increasing global research on work-related stress, the available literature is not comprehensive enough especially within the context of higher education institutions in South Africa. There is a paucity in the literature in relation to female academics’ work-related stress and its associated factors in South African universities. The work-settings and the environment differs in academic institutions. Traditionally, academic institutions are viewed as work environments with the least workload. Recent developments have proven otherwise with the increasing introduction of metric measures of performance, productivity and quality within academia. In addition, for the academic staff in managerial positions, Shin and Jung (2014), noted the rapid increase in their managerial workload due to new public management of reforms driven by performance-based management, budget short-cuts, and efficiency-oriented management.

Shin and Jung (2014), noted the variation in academic roles and responsibilities across higher education systems. Academic responsibilities range from teaching and learning, research and supervision, administration, community engagement and academic citizenship (Meng & Wang, 2018; Macfarlane, 2018). Similarly, the expectations for both the academic staff and the institutional management vary with respect to personality, background information, goals and values. The stressors triggered by these expectations within the institutional environment for the academic staff are complex. While Yousefi and Abdullah (2019) traced these stressors to the age of transition of constant global changes, Kaur, Noman, and Awang-Hashim, (2018) aligned it to the changes in curriculum design and the dynamic multi task duties, resulting in the creation of high performance expectation. Furthermore, Meng and Wang, (2018), attributed the stressors to the diverse needs of students and the academic staff performance requirements. These measures are rapidly changing the academic practices resulting in discontentment among academic staff. The intricate academic environment with such measures sometimes poses greater concerns to the lives and well-being of academic staff than one would expect. Thus, as the workloads increase, striking a balance between academic work and family life becomes an unending journey. As such, the academic work environment is gradually deteriorating, a notion coined by Locke and Bennion (2013), as ‘academic proletarianisation.’

2.6 Academic Job Stress and Job Performance

According to Yozgat, Yurtkoru and Bilginoğlu (2013), job stress is becoming an epidemic in the work environment because of its negative effect and the increasing frequency of report on people. Job stress is defined by scholars as an individual's response to external stimuli in the environment (Deng, et al 2019; Yozgat et al 2013). According to Olaniyi (2013), job stress is a phenomenon that presents many complexities, which may directly or indirectly affect the general wellbeing of the individual. Though inconsistency exists among researchers concerning the direct and indirect effects of job stress, extant literature exists on the evidence of both. Accordingly, direct stress effects are mostly incurred by the task load alone while indirect stress effects are those associated with the task load demands (Ajayi, 2018). These work-related stressors are vital factors which have long been established as affecting individual's physiological, psychological, and behavioural patterns (Gonge, Jensen & Bonde, 2002; Burke & Greenglass, 2001; Johnston & Pollard, 1991) such as job performance (Motowidlo & Manning, 1986). In view of Wang, Yen, and Liu, (2015) assumptions, job performance plays a critical in accomplishing organisational performance.

According to Khuong and Yen (2016), job performance is the total output that employees recognized as contributing to the organisation or an activity that the individual is able to complete successfully. The increasing competition in the rapidly changing business environment has placed more demands on employees' performance. Befort and Hattrup (2003), argued that the essence of job performance relies on the job demands, belief systems, and goals and the mission of the organization. In principle, job performance entails quality and a quantity of results which is driven from an individual or group. (Schermerhorn, Hunt, and Osborn, 2005). In a similar vein, though job stress affects individuals differently, Carmeli (2003), notes that employees with a high level of intelligence are able to manage their emotions, retain a positive mind and improve on their performance.

Within the academic environment, job stress and job performance are viewed as having the same effect. Academic job performance is assessed within the dimensions of the job requirements which includes but not limited to, teaching and learning, research and postgraduate supervision, administration, community services and academic citizenship. Furthermore, the job requirements of academics are assessed along the organisation's dimensions of goal setting, mission and objectives. Academics are therefore required to maximize output to achieve these goals and objectives which serves as a measure of evaluation. Sajuyigbe, Madu-Igwe and Babalola, (2015), emphasized that these stressors in an academic setting, causes unusual and dysfunctional behaviour at work and contribute to poor physical and mental health for academics.

In view of the foregoing, the factors that contribute to the academic job stress which impact on the job performance as role stressors, workload, working relationship, and working environment is discussed hereafter.

2.6.1 Role stressors

According to Abbasi & Janjua, (2012), role stressors refer to anything about an organisational role that creates negative consequences for employees. It represents conflicts and tension due to roles being enacted by a person at any given point of time (Devi & Rani, 2016). The role stressors discussed within the limit of this dissertation are in the dimension of role ambiguity and role conflicts. Role ambiguity occurs due to lack of clarity or when people are uncertain about their expectations within a certain role in a workplace (Palomino & Frezatti, 2016; Tang, 2010; Edmonson, 2006). In such situations, the person's job is ill defined. Academics, whose roles are ill-defined are likely to experience considerable uncertainty about their role performance (Teichler, 2007). Further ambiguity may occur when academics struggle to juggle the academic activities assigned to them such as teaching, researching, academic development and so forth. In a similar vein, role conflict occurs as a result of expectations from multiple roles. This can be observed in an academic setting where academics are expected to teach, research, perform administrative duties, participate in community engagement as well as professional development. Research studies have found the negative impact of role conflict and role ambiguity job performance among academics (Palomino and Frezatti, 2016; Tang, 2010; Idris, 2011).

2.6.2 Academic workload as a stressor

As the university landscape is continuously changing, academics are faced with complex work requirements more especially in the areas of teaching and research. The dual functions of the university in knowledge creation and transmission is placing more demands on the academics workload. According to Warraich, Raheem, Ahmad, and Khoso, (2014), workload refers to the concentration or the amount of assignment and tasks, employees are responsible for at work. The two classifications of workload are role overload and role under load. According to Creary and Gordon (2016), role overload exists when an individual performs multiple roles simultaneously which may exert both excessive time demands and excessive psychological demands. Role overload creates more expectations than the available time, resources and capabilities of the individual (Abbasi & Janjua, 2016; Duxbury, Lyon & Higgins, 2008). Kunte, Gupta, Bhattacharya & Neelam (2017), notes that role overload could be viewed from quantitative and qualitative perspective. While the quantitative perspective defines role overload as the conflict between job demand and time availability, qualitative addresses the mismatch between the demand of the job and individual's capability (Larson, 2004; Bacharach, Bamberger & Conley, 1991; Fineman & Payne, 1981). Similarly, role underload refers to when the task assigned is less than the individual's capability (Harry, 2020; Naude, 2015; Shultz, Wang & Olson, 2010). This could reflect both quantitatively and qualitatively. The quantitative nature of role underload is experienced when an individual has few tasks and experience idleness or boredom on the job while the qualitative underload occurs when an individual has enough things to do but below his or her capabilities (Psychology, 2020). Thus, role overload or underload occurs within academia. Role

overload moderates the direct impact of self-efficacy and level of performance (Bolino & Turnley, 2005; Brown, Jones & Leigh, 2005).

2.6.3 Work environment and working relationship as stressors

The on-going transformations in higher education institutions has seen scholars increasingly paying closer attention to the university work environment and its impact on academic staff (Bentley, Coates, Dobson, Goedegebuure & Meek, 2013; Shin and Jung, 2013; Schulz, 2013). Generally, domains of the work environment are the organisational climate and the psychosocial work environment. Patterson et al (2005), defines the organizational climate, as shared employee perceptions of organizational practices and procedures. This refers to how things are generally done within the organization. Similarly, Zabrodska et al (2014), refers to the psychosocial work environment as the direct personal experiences of individual employees with their organization. These scholars noted that the four main domains of the psychosocial work environment are job demands, work organization, interpersonal relations and leadership, and the work-individual interface. The individual fit to a work environment occurs when the characteristics of an individual matches that of the work environment (Kristof-Brown & Guay, 2011; Kristof-Brown, Zimmerman & Johnson, 2005). Such fitness is determined by job demands, working conditions, rewards and quality of the working environment. Similarly, communication plays a vital role in relationships by providing a clearer direction for the employees. Support from colleagues tend to reduce job stress, foster success and help employees achieve higher levels of performance.

Though the academic work environment varies across countries, the commonality of occupational stress exists in all academic work situations (Zabrodska et al 2014; Zabrodska, Linnell, Laws & Davies, 2011). These stressors emanate from the awareness indicated by role ambiguity, role conflict, workload, working relationship amongst academics and workplace environment as well as the characteristics of the individual (Gharib, Jamil, Ahmad & Ghouse, 2016; Palomino & Frezatti, 2016; Tang, 2010).

2.7 The Impact of Job Stress on Female Academics

Workplace stress has an impact on both the individual and the organisation. Within an academic environment, the impact of job stress cannot be undermined. Several studies have been conducted into workplace related stress in an academic settings and some, with special interest on the female academic staff. Many of these studies revealed that the stress framework in academic settings is built around workplace stressors related to roles, workload, relationship and the environment. A review of some of these studies are presented as follows:

Desa et al (2014), examined the relationship and influence of personality on job stress among academics in a university. The findings of the study show personality dimensions as a predictor of stress. The personality of an academic constitutes various traits; physical, emotional, social, mental and spiritual

amongst others that makes the individual unique. These traits are confined to behaviour which plays out in relationship with oneself and towards others in a work environment. Desa et al (2014) opined that individuals are happier when there is a fit between their job and their personality, as well as with co-workers. Furthermore, these scholars noted that academic career development is another important source of work stress. As academics struggle with keeping various job requirements for professional growth, the anticipated overload then becomes the stressor.

In another study by Zhang (2010) on the investigation into the job-related stress amongst women academics in a research university, the author found role conflict as one of the sources of stress in the sampled university. The stressor was found to be attributed to social-cultural practices. The women academics in the sampled university were found to pay detailed attention to the children's development unlike their counterparts. This is so because of the belief system that a woman who cannot educate and train her child is more or less a failure in society. These women held strong traditional belief system of women's role in supporting family, taking any tasks that comes their way, some of which poses difficult priorities and well as holding strong ethical views against marriage separations. These findings contribute to stress amongst female academics in the sampled university.

Al-Ghamdi (2017) examined the role overload in relation to job stress among female academics in a university. The study investigated the role overload as a predictor of job stress among university female academic staff in the context of Saudi Arabia. The findings of the study showed a significant positive relationship between role overload and job stress. The study concludes that role overload is a predictor of stress amongst female academics in the sampled university.

Shah, Memon and Saba (2014) conducted a study to determine occupational stress among female academic staff of higher education institutes of Sindh, Pakistan. The sample size for the study comprised female academic staff from selected public and private higher institutions of learning. The findings of the study pointed to administrative factors, peer relationship and working environment as the stressor for the female academic staff sampled.

In another study by Meng and Wang (2018), the researchers tested the sources of university faculty occupational stress in a Chinese university. Though the sample for the study comprised both male and female academic staff, the findings of the study showed that academic occupational stress emerged from the structural constraints of the university and personal characteristics. The scholars alluded to stressors being the new public management principles, progress in social science and technology, increasing students' enrolment, as well as demand on academic performance. In addition, the academic job task of teaching, research, and administration were found to have a significant effect on occupational stress. Furthermore, the individual characteristics of the respondents which depicts demographic dimensions

of age and position affected the sample's occupational stress. At the time of the study, respondents of 40 years of age and below were found to have high levels of stress than those who were older. In the same vein, academics at associate professor level suffer more occupational stress than those at professor level. This was attributed to the quest for promotion. These factors are considered measuring parameters for evaluation and performance management at the sampled university. In essence, the quest to achieve objectives associated with these stressors influences the university management mechanism and poses stress to the academic staff.

Another study by Sofoluwe et al (2015), examined the relationship between gender, stress and job performance in an institution of higher learning. Though this study was on the correlational aspect of gender/stress on job performance, aspects of the study measured gender differences in academic stress which measures the level of an individual's job performance. The findings of the study showed that academic work related stress affects the health of the organisation. Furthermore, a significant relationship was found between gender, stress and job performance. These stressors negatively affect the lecturers' performance and more particularly, female lecturers, in executing the job tasks of teaching, research, academic citizenship and personal well-being.

Kaewanuchit, Muntaner and Isha (2015) investigated a causal relationship of occupational stress among the academic university employees. The sample for the study comprised of 2000 academic staff, male and female in a government university in Thailand. Though the study specifically did not address the aim from a gender perspective, it found that psychosocial factors such as job context and environmental condition had a direct effect on stress among academic staff. These factors of job context and environmental condition on occupational stress is detrimental to the health of academic staff. In essence, these stressors affect academic staff ability to achieve well-balanced life.

Thus, a review of the studies presented has shown that female academics in the universities suffer from stress related to roles, workload, peer relationship and the condition of the work environment. The organisations also bear part of the brunt of the stress which impact on its performance, productivity levels, health related costs, attrition and public images (Ekienabor, 2016; Dwamena, 2012).

2.8 Stress management and coping strategies in an academic environment

Higher education institutions are undergoing various changes in pursuit of excellence, productivity and upholding stakeholder expectations. Keeping up with these changes has resulted in rapid transformation of the academic work environment which has traditionally been viewed with less stress. The concept of stress among academic staff in the universities have gained much attention recently (Gustems-Carnicer, Calderón & Calderón-Garrido, 2019; Väisänen et al. 2018; Mapfumo, Chitsiko & Chireshell, 2012). Increasingly, research studies have shown that academic staff are undergoing continuous occupational

related stress (Park & Kim, 2018; Quraishi, Aziz & Siddiquah, 2018; Kinman, 2008; Kinman & Court, 2010; Kyriacou, 2001). This is attributed to the multifaceted roles of academic staff which goes beyond the mere conveying of knowledge. These studies have demonstrated that academics undergo excessive pressure which contributes to social, psychological and emotional well-being (Ha, 2015). Mark and Smith (2018) opined that because the academic workplace demands high intrinsic and extrinsic effort, academics report high levels of depression and anxiety. In the field of Psychology and Human Resource Management, managing and coping with stress remains one of the most widely researched area and to date, a challenge to both the academics and the management.

Managing and coping with stress is a vital aspect of achieving well-being. According to Väisänen et al (2018), coping is a key process in managing stress and it allows the individual to make both cognitive and behavioural effort in dealing with both internal and external stressors. In essence, Mohammed El-Amin and Singh (2016) viewed coping as a means of dealing with a situation. Lefton (2000) defines coping as the process a person uses to manage, master, tolerate, or reduce environmental and internal demands leading to stress which may affect the individual's inner resources. Mohammed El-Amin, and Singh (2016) posit that stress management is the most effective way in helping individuals avoid problems and learn coping strategies. Literature noted different types of descriptions and approaches to coping thus making coping strategies not to be one size fits all but one that changes from an individual or organisation to the other. Thus, outcome of a stress management technique either by an individual or the university is to provide a coping mechanism in dealing with the stress. The most important aspect noted by Folkman and Lazarus, (1985), is that the coping strategy changes an outcome of a stressful transaction by affecting both the cognitive and behavioural responses. In so doing, these scholars noted that coping strategies could be emotion-focused coping and problem-focused coping. While the emotion-focused coping involves the individuals' efforts towards adjustment, the problem-focused coping addresses the ability to tackle the problem to reduce unforeseen harmful effects (Folkman and Lazarus, 1985). Various studies on managing and coping with stress provided results along these dimensions, emotion-focused coping and problem-focused coping.

In a study by Darabi (2013) on character strength and stress management in academic staff, the researcher found that the sampled academics used locus of control (LOC) to deal with stress. In the field of Psychology, locus of control address a generalised expectancy that rewards or outcomes are controlled by an individual's response to events or by other resources in life (Spector, 1982). Locus of control is an important personality variable that affects behaviours at work such as job satisfaction, job performance, and turnover (Spector, 1988). Wang, Bowling, and Eschleman (2010) found a positive relationship between locus of control and job satisfaction. Furthermore, Darabi (2013) aligned her findings of the study along the dimension of sense of coherence. According to Antonovsky (1993), Sense of Coherence (SoC), refers to resources peculiar to an individual which he/she uses to

not only to respond to stress but to dealing efficiently with the stress and achieving a positive outcome. The concept of SoC allows for individuals to apply specific coping strategies in dealing with stress. Antonovsky (1993) asserted that individuals with a high sense of coherence are healthier, expressed less stress and greater well-being when compared with individuals with low sense of coherence. This is not different in a high education setting as Darabi (2013) noted the same in the findings of the study. In view of the foregoing, Darabi (2013) found that academics apply LOC and SoC in dealing with stress. As such, academics used relationships with colleagues, students, friends and family to cope with stress. These academics also use research related activities such as presenting a research study at a conference, data collection and analysis to reduce stress. Exercises and satisfaction in life help these academics to cope with stress.

In another study, Owusu and Tawiah (2014) examined stress management strategies employed by female academic staff in a university. The findings of the study revealed that the female academics endeavour to maintain good physical health, apply intellectual, social and spiritual support, maintain positive attitude, realistic perspective, increased involvement, and try to manage their time management effectively. The findings also revealed a positive correlation between experience and coping strategy. Similarly, Jaiyeoba (2017) found in the study on the influence of recreational activities as a coping strategy, that regular exercise, getting enough sleep, relaxation, healthy eating, time management and finances reduce work stress. Mohammed El-Amin and Singh (2016) in their study found that female academic staff sampled, apply experience, perception, personality and social support as strategies for coping with stress. In addition, the coping strategies provided by the university decreases emotional burnout out in these female academics. In a similar study, Shrivastava, and Shukla (2017) investigated the phenomenon of occupational stress factors, coping strategies and stress effects among female members in an institution. The researchers found that the female academics sampled used the following to overcome stress, namely: interaction with positive colleagues, playing with children, maintaining a positive attitude, entertainment, yoga and exercise, meditation, cooking, rest and the internet (Facebook, WhatsApp etc.). Other similar studies in the area of female academic staff, stress management and coping strategies found results similar to the studies presented earlier which include recreation, self-care, social support, adequate remuneration, tight role boundaries, recognition from management, colleagues and students, a high level of morale in the workplace and flexible working conditions (Reddy, Menon & Thattil 2018; Abdullahi, 2018; Davis-Roberts, 2006).

This review of research studies showed that stress management and coping strategies are multifaceted, individualistic and varies between organisations. It ranges from employee wellness programs, use of policies, medical support (medical aid), to leave systems under the broader category of locus control and sense of coherence. It shows that female academics apply these strategies as it fits them and within the context of the environment the individual finds herself.

2.9 Research gaps in various studies on job stress

This section provides a summary of various research studies on job stress conducted within the South African academic environment to identify the gaps in literature. The first few studies reviewed were specifically on female academics in the universities in South Africa.

Bezuidenhout, and Cilliers (2010), conducted a study on female academics in higher education in South Africa. The researchers explored the effect of the individual academic's Sense of Coherence (SoC) on their experience of burnout and work engagement. The idea stemmed from the mergers, increasing job demands, ever-increasing class sizes and role conflict inherent in the female role which contribute extensively to stress and burnout among them. The study employed a quantitative research approach and data was collected from a total of 187 female permanent employees at two South African universities – University of South Africa (Unisa) and Tshwane University of Technology (TUT). The collected data was analysed statistically and the findings showed average levels of burnout, and signs of increase in burnout among these female academics. Though the findings of the study revealed work engagement on average for the sampled academics, the sense of coherence amongst these academics was low. The study recommends the need for the university management system to take cognisance of the increasing burnout levels among the female academic and execute the appropriate coping strategies.

This study might be dated but the findings cannot be undermined because it still forms part of debate on university academic environments. Petersen and Gravett (2000) investigated the experiences of women academics in South African universities. The researchers adopted an interpretative research paradigm and a qualitative approach. The findings of the study showed both positive and negative experiences of women academics at the Rand Afrikaans University (RAU). The positives pointed to the lessening of visible, overt discrimination and flexible working hours. Similarly, the negative experiences by the sampled women academics include work overload, ambivalent feelings about academia and the impact on reactions and behaviour.

The following reviewed research studies were generalized in the terms of the sample size. The sample size either consisted of academics (both male and female) or academics and administrative staff at South Africa universities. Furthermore, a few of the studies were compared with the South African HEI and other countries to ascertain similarities and differences. Dhanpat, De Braine, and Geldenhuys (2019) examined the demands placed on academic as a result of transformation in Higher Education Institutions in the South African context. In view of this, the researchers examined the demands and stresses that may hinder the work performance of academics. The researchers adopted a quantitative research design using a cross-sectional survey and collected data from 184 academic staff members from HEIs. Data was analysed statistically using exploratory factor analysis (EFA). The analysis of the variance revealed

that the stressors in the academic environment are workload, higher education unrest, change management, decolonisation, online teaching and learning and psychological safety. The study contributes to the limited research on hindrance demands placed on staff in HEIs within the South African context.

In another study, du Plessis (2019), conducted a study on coping with occupational stress in an open distance learning university in South Africa. The researcher explored the occupational stressors experienced by academics employed by open distance learning (ODL) institutions and the coping strategies they use. The sample for the study comprised 305 academics of which 64.3% of this sample (196 respondents) were female academics employed in higher education institutions for more than 10 years. Using multiple regression analysis, the study found that the sampled academics' cognitive, social support, and vacation time as coping strategies. The study recommended the need for stress management practices to mitigate occupational stress and promote the adoption of adaptive coping strategies among academics.

A comparative study was conducted by Kairuza, Krehula and Truter (2019). The researchers investigated the expectations associated with the working environment of academic pharmacists in Australia and South Africa. The researchers applied the inductive approach of qualitative research and sampled academics from two universities in the Southern Hemisphere, in Australia and in South Africa. Thematic analysis was employed and findings were grouped within the broader category of level of motivation, degree of satisfaction and adversity. The study found that challenges in the academic environment promoted hardship, adversity and impacted perceived performance. The job stress emanating from the academic job task such as leadership and curriculum development affects the individual's degree of satisfaction while intrinsic qualities drive their levels of motivation which impact positively on their performance. Irrespective of these, the academic pharmacists sampled in the study demonstrated commitment to their roles as educators.

Poalses and Bezuidenhout (2018) examined the mental health of academic and administrative staff at an open distance learning university in South Africa. The sample for the study consisted of 294 university staff members (male and female academic staff as well as administrators). In a university environment, the occupational demands outweigh occupational resources making work more stressful and exhausting and thus, a disengaged workforce. Given this backdrop, and using a mixed methods approach, the researchers investigated the work related stress experienced by these staff members. The findings of the study alluded to stressors from job demands triggered by the university environment which requires strategic interventions.

In another comparative study, Chitsamatanga, Rembe, and Shumba (2018), examined the experiences of female academics in South African and Zimbabwean universities. The researchers adopted a qualitative approach to examine the hurdles encountered by female academics in their career trajectories given the available Staff Development Programmes (SDPs) implemented by these universities. The sample comprised 10 senior female academics and the findings pointed to the need for theoretical and practically oriented capacity building programmes as well as adequate human and financial resources. The study recommends the need for adequate funding and identification of capacity building programmes that would ensure the training provided meets the needs of the female academics. Though this study did not measure stress among the female academics, it is believed that the associated hurdles which limits their career mobility promotes negative stress for the female academics.

In a study by Dorasamy and Letooane (2015), the researchers investigated the level of job and career satisfaction among university academic staff. The focus of the study lies on the need to ascertain factors that improve career and job satisfaction amongst academic staff since these constructs have posed a challenge in higher education institutions. The researchers adopted a mixed methods approach and sampled 142 academic staff from a South African university. Quantitative data was collected using structured questionnaires and analysed statistically. Similarly, qualitative data was collected using open-ended interview schedules and analysed thematically. The findings showed career advancement leads to job satisfaction, while factors that lead to poor job dissatisfaction include job insecurity, organisational culture, disintegrated systems, lack of communication, poor facilities, poor registration processes, remuneration, unfair allocation of duties, work overload and division amongst departments. The study contributes to the research on potential factors that negatively impact on the job and career satisfaction of academic staff in higher education institutions.

Barkhuizen, Rothmann, and van de Vijver (2014) investigated the relationships between dispositional optimism, job demands and resources, burnout, work engagement, ill health and organisational commitment of South African academic staff. The researchers adopted a cross-sectional survey design and a stratified random sample of 595 taken from academics in the South African higher education institutions. The findings of the study revealed that job demands and a lack of job resources contributed to burnout whereas job resources contributed to work engagement.

Barkhuizen and Rothmann (2008), examined the indicators of occupational stress for academic staff in South African education institutions. Furthermore, the researchers investigated occupational stress of different demographic groups and the possibility that occupational stressors predict ill health among academic staff. The researchers employed a cross-sectional survey design and with an Organisational Stress Screening Tool (ASSET) questionnaire, data was collected from 595 academics at South African higher education institutions. The findings revealed differences between the levels of occupational

stress and ill health of demographic groups. Furthermore, academics reported higher levels of stress relating to pay and benefits, overload and work-life balance. The findings specifically pointed to four occupational stressors that affect academics which are overload, job control, resources and communication, and job characteristics.

Given the reviewed literature, the researcher noted that although most of the studies reviewed involved academics in higher education institutions within the South Africa context, there were generalisation in terms of demographic representations. A few studies were specifically on female academics in HEI while the rest of the studies were not gender specific. This shows there is a limited research specifically on the female genre at South African universities. Furthermore, the researcher also noted the gap in the geographical representation as most of the studies reviewed were conducted outside of KwaZulu-Natal except for where the study site was not identified. Given, the foregoing justified the need for the present study.

2.10 Summary

The chapter started with an overview of the introduction and background of the study followed by relevant theoretical models of stress and legislations. Literature pertaining to the concept and nature of stress was reviewed. The researcher brought into context job or workplace stress and aligned it to the academic environment. The impact of stress on job performance within the academic environment was explored and possible stressors were identified. Specifically, the impact of job stress was reviewed in relation to female academics and the subsequent coping strategies were brought into context. Finally, the gap in literature was highlighted.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

The previous chapter provided literature related to job stress. This chapter presents information on how the research was carried out which is referred to as the research methodology. According to Sekaran and Bougie (2013), research is defined as a venture that is done with the sole purpose of finding answers or a solution to a specific problem. It is done in a critical, systematic, organised, objective, data-based manner. Similarly, Welman, Kruger and Bruce (2012) defined research methodology as a process that explains the nature and procedures of research in order to help a reader to understand the way in which the research was carried out.

Given the above definition, this chapter presents the following: research philosophy and design, approaches to the research study, sample, sampling strategies and population of the study. Furthermore, data collection methods, analysis and measurement of data quality are presented. Lastly, ethical consideration and the conclusion of the study followed.

3.2 Research Philosophy and Design

Research philosophy is the belief system and assumption as regards the development of knowledge and may be simply noted as the process of developing knowledge in a particular field (Saunders, Bristow, Thornhill & Lewis, 2019). According to Creswell (2013), a research philosophy is otherwise referred to as research paradigm, ontologies, philosophical worldviews and epistemologies. In view of Žukauskas, Vveinhardt and Andriukaitienė (2018), positivist paradigm claims that the social world can be understood in an objective way. The authors assert that in positivist research philosophy, the scientist is an objective analyst and, on the basis of it, dissociates himself from personal values and works independently. Patel (2015) also states that a positivist paradigm is adopted when there is a belief of a single reality that can be measured and known in the research. Adopting a positivist approach helped the researcher to explore the causes of job stress amongst female academics at UKZN PMB campus. Sekaran and Bougie (2016) states that a research design is an essential part of a research study since it is the blue print for collection, measurement and data analysis which is based on the study's research question. It helps in the development of a good research study and in answering research questions. According to Sekaran and Bougie (2016) research design could be referred to as the comprehensive scheme of the research that explains the hypothesis, final analysis of data as well as the operational implication. Similarly, Boru (2018) asserts research design to be an overall plan for connecting the conceptual research problems with the pertinent. Furthermore, research is seen as the connection that links the data that has been collected with the overall conclusion which was drawn regarding the

research question that was asked to help achieve the objective of the study (Saunders, Bristow, Thornhill & Lewis, 2019).

Sekeran and Bougie (2013) note that the various types of research design includes descriptive, exploratory, experimental and case study. For the purposes of this study, an explorative research design was adopted. Thompson (2012) asserts that exploratory research is not done so that a solution to a certain problem can be reached, rather it is done so that the nature of a particular problem is discovered. Exploratory research helps a researcher to understand the causes behind a particular problem (Thompson 2012). Furthermore, with exploratory research, the researcher should not be biased but should accept the new development and insights (Malhotra, 2010).

3.3 Research approach

Creswell (2013) notes the three research methods commonly used are qualitative, quantitative and mixed methods. A qualitative research approach takes the assumption that that reality could be objectively constructed with the application of statistical models (Ruggiano & Perry, 2019: Perry 2002). In the same vein, Silverman (2011) describes a qualitative research approach as an approach that gives an in-depth understanding of the issue at hand, instead of gathering and describing a large sample size. In most cases, with a qualitative design, data is collected with the help of in-depth interviews and observations as well as document analysis (Williams 2007). Qualitative research methods adopt inductive reasoning, which means that the adoption of this form of research induces a particular response from the respondent by employing techniques like interviews in a particular situation (Williams 2007).

Similarly, a quantitative study is presented with the help of statistics to answer questions concerning the relationship between measured variables in order to develop generalisations that add to a theory (Johnson & Onwuegbuzie, 2004). According to Gillham (2007), a quantitative research approach generates numeric data which are converted into statistics during analysis. Onwuegbuzie and Leech (2004) assert that quantitative research is formalized and controlled with a more exact range, that is, it is used to quantify attitudes, options and behaviors as well as define variables. It is most suitable to obtain result from a larger sample population because it provides more structured results than the qualitative approach. A quantitative research design includes the use of questionnaires, online surveys, paper survey, mobile surveys and kiosk surveys.

According to NIH (2018), the mixed research method is defined as a research method which combines multi-level perspectives and draws strength from the qualitative and quantitative research methods. Mixed methods utilizes multiple methods such as intervention trials and in-depth interviews (NIH, 2018). In the view of Tashakkori and Teddlie (2003), a mixed research approach allows a researcher to conduct a single study using both qualitative and quantitative methods. With a mixed research method,

the researcher is able to answer complex questions regarding a complex phenomenon thereby allowing the researcher to understand causal relationships between study variables (Williams 2007). In addition, a mixed research approach tends to improve the validity of the data collected (Rocco *et al* 2003).

In this study, the researcher adopted a quantitative research approach because of the following reasons:

- The researcher chose a quantitative research method because it is the most suitable method for answering the research questions and achieving the aim of this study.
- A quantitative approach involves the collection of numerical data that can be helpful in explaining a phenomenon and Rahman (2017) notes the possibility of generalizing the research findings when a quantitative approach is employed.
- Another advantage of this approach is its ease of data analysis and less time consumption.
- Lichtman, (2013) notes the possibility of the approach in ensuring the validity and the reliability of the study.

3.4 The Research Study site

The study site is the physical place where the researcher will conduct the research so that the desired data that is needed for the research can be collected (Simon & Goes 2012). In this study, the study site is the University of KwaZulu-Natal, Pietermaritzburg campus. The justification for carrying out the study at the chosen research study site was because the researcher is at present a student at the UKZN PMB campus therefore the focus of the study was on the PMB campus only.

3.5 Sampling Method

According to Statpac (2017), sampling is defined as the process that involves selecting the unit from a population of the researcher's interest. Sekaran and Bougie (2013) states that there are two types of sampling techniques, which is the non-probability and probability sampling. According to Sekaran and Bougie (2016), with a non-probability sampling method, all of the participants are potential elements and there is no way of determining exactly what the chance is of selecting any particular element or sampling unit into the sample. As such, it does not guarantee the generalization of the findings. According to Bhattacharjee (2012), the various types of non-probability sampling methods are quota sampling, snowball sampling, convenience sampling, and purposive sampling.

In a probability sampling technique, all the samples have equal chances to be selected (Taherdoost 2016). Ardilly and Tille (2010) noted that probability sampling has the greatest freedom from bias. The kinds of probability sampling methods include simple random sampling, systematic sampling, stratified random sampling, and cluster sampling.

This study adopted a cluster probability sampling technique because data was collected from only one of the five campuses of the University of KwaZulu-Natal. The idea behind sampling only one campus

is to provide insightful information that may lead to future research studies that may include other campuses of the university.

3.6 Population and sample for the study

This section provides information on the population, target population and sample size. After the sample is studied, the results could be generalized to the population from which the sample was chosen (Taherdoost 2016). The population of the study is 100 female academics at UKZN's PMB campus.

A target population is the entire collection of prospective participants that meet the selected sets of standards (Simon & Goes 2012) or could be surveyed (Bhattacharjee, 2012). Out of the population of 100, the researcher targeted 80 female academics who are presently employed at UKZN.

Similarly, a sample size is defined as the total number of participants that are included in particular study and is known as the sample (Yin, 2012). In the same vein, Taherdoost (2016) defined sample as only the elements that were selected out of the entire population for a particular study. Sekeran and Bougie (2016) assert that a sample is obtained from the population of people which the researcher wishes to investigate. Given the target population of 80, the researcher adopted a sample size of 70 female academic staff at UKZN. The sample is narrowed to 70 because the researcher considered only female academics with full-time permanent employment. The representative sample size is adopted from Krejcie and Morgan (1970) sample size table (See Appendix A). The researcher sampled female academics from the School of Management, IT and Governance; School of Education; School of Life Sciences; School of Arts and School of Social Sciences.

3.7 Data Collection and Analysis

This section provides information on the data collection techniques and the analysis of the data.

3.7.1 Data Collection Technique

According to Lewis (2015), data collection involves the method used to gather and measure information on the variables of interest so as to be able to establish and answer research questions. Techniques used for data collection include questionnaires, observation and interviews (Pickard, 2012). Data may be collected using primary and secondary sources.

According to Nicholson and Bennett (2009), primary data is raw data specifically collected during the course of the research. The advantage of primary data according to Nicholson and Bennett (2009) includes that using primary data helps the researcher to relate directly to the specific problem thus providing a more realistic view to the researcher concerning the research. Similarly, secondary data exists in the form of existing literature such as government publications, websites, books, journal articles and internal records (Ajayi 2017; Nicholson & Bennett 2009).

For the purposes of this study, the researcher used both primary and secondary sources for data collection. While primary data was collected using a questionnaire, secondary data was sourced from existing research studies and relevant publications in line with the research focus area.

3.7.1.1 Description of the Questionnaire

According to Sekaran and Bougie (2013) a questionnaire is defined as a research instrument that includes various questions which provide patterns to the research. A questionnaire can either be open ended or closed ended or both depending on the nature of the study. An open ended questionnaire is a form of questionnaire that does not give the respondent answers to choose from, while a closed ended questionnaires are those that provides the respondent with answers/choices to choose from (Sekaran & Bougie 2016).

The researcher adopted a closed-ended questionnaire. The questionnaire was formulated to respond to the study's research questions and objectives (refer to Appendix B). The questionnaire was divided into 5 sections: section A (general information about respondents); section B (measured the implications of job stress); sections C (provided answers for the causes of job stress); sections D (elicited information on the effect of job stress on employee job dissatisfaction), and section E (addresses the impact on job stress on employee work life balance).

3.7.2 Data analysis

Data analysis can be defined as a procedure that is used by the researcher to reduce the data which has been collected to a manageable size (Sekaran & Bougie, 2016). The researcher administered all questionnaires and went through each question with each respondent. Being a student at UKZN at the time of the study, made it easier to administer and retrieve the questionnaires. The researcher administered 70 questionnaires to the respondents and retrieved 57. These 57 questionnaires were successfully completed and considered ideal for analysis. The preparation of the data involved checking the quality of the data that was collected and arranged the data so that smooth analysis was enabled (Kawulich, 2004). The data collected was analysed using SPSS version 25. The researcher presented the findings using descriptive statistics in form of tables and figures. According to Jaggi (2017), descriptive statistics is defined as a process that is used in the gathering, measuring, classifying, computing, synthesizing as well as analysing and interpreting quantitative data which are systematically acquired. In other words, descriptive statistics is the term given to the analysis of data that helps describe, show or summarize data in a meaningful way such that patterns might emerge from the data or it summarizes variables both statistically and graphically and provides information about the location (centre), spread (variability) and distribution (Jaggi, 2017).

The researcher used a descriptive statistical method for this research because the study is quantitative in nature which needs numerical and graphic procedures to summarise the collective analysed data with SPSS. Jaggi (2017) explains that descriptive statistics enables us to simplify large amount of data and reduces large quantities of data into a much smaller or simpler summary.

3.8 The Test of data quality

The data quality for the study was done by measuring the quality of the research instrument and the validity and reliability of the study. According to Sekaran and Bougie (2016), the concepts of reliability and validity are the two concepts that are used to determine the quality of the study.

3.8.1 Test of research instrument

As noted earlier, the research instrument used for the study is a questionnaire. The structure of the questionnaire was done in two ways. Firstly, after structuring the questions, the researcher submitted them to the supervisor who vetted the questions to ensure its appropriateness in answering the research objectives. Some questions were reconstructed for ease of comprehension. Secondly, the researcher conducted a pre-test with 4 female academics employed at UKZN PMB. According to Bhattacharjee, (2012), the use of a pre-test helps the researcher to ensure that all possible errors that might occur during the actual research process is reduced. Grimm (2010) added that pre-testing a questionnaire helps to ascertain whether the flow of the questions is correct. Thus, the pre-test allowed the researcher to determine if the questions address the intention and to remove any form of ambiguity.

Thirdly, the researcher ran a descriptive statistical analysis to measure the standard deviation around the mean values for all the questions. Rumsey (2016) notes that standard deviation (SD) is a measure of dispersion which means the values are distributed in a data set are around the mean. Statisticians note that determined standard deviation values not greater than plus or minus 2 SD (+2SD) represent measurements that are closer to the value (Rumsey, 2016). Given this background, all the tested questions show SD ranging within the suggest value (See Appendix C). This suggests that all the questions are appropriate to provide sufficient answers for the study research objectives.

3.8.2 Measurement of the validity of the study

According to Sekeran and Bougie (2013), some of the different types of validity are construct validity, face validity, content validity external validity and internal validity. The researcher measured the validity of the study using construct and content validity. According to Creswell (2013) construct validity is otherwise known as measurement validity because it applies mostly to quantitative research. According to Price, Jhangiani, and Chiang (2017), validity can be defined as the extent at which the scores, which is measured which represents the variable that they are intended to. In other words,

validity points out the range of inference that will be appropriate during the interpretation of a measurement, a score or the result of a test (Sekaran & Bougie 2016).

For the measurement of construct validity, Mohajan (2017) notes that a research instrument is said to possess a construct validity when it measures the concepts meant to be measured. In view of this, the pre-testing of the questionnaire satisfies the validity of the study. In addition, Anastasia, (1988) notes that content validation plays a primary role in the development of any new instrument and provides evidence about the validity of an instrument by assessing the degree to which the instrument measures the targeted construct. In addition, it enables the instrument to be used to make meaningfully and ensures that the appropriate inferences and/or decisions from the instrument scores given the assessment purpose (Messick, 1989; Moss, 1995). Given the foregoing, the researcher collected the raw data directly from the respondents thus eliminating any third party participation or issues of bias. The respondents answered the questions at their most convenient time and in their comfortable environments. It is assumed that the information provided by the respondents are valid for the purposes of this study. Furthermore, the findings of this study was compared with the findings of similar studies presented in Chapter 2 under the research gap to ascertain trends and patterns.

To ensure the validity of the secondary data, the researcher retrieved materials from the University of KwaZulu-Natal's database using google scholar, EBSCO, JSTOR, Elsevier, WebScience and Science Direct. It is believed that these databases house quality and non-predatory publications.

3.8.3 Measurement of the Reliability of the study

A study can be said to be reliable when it is replicated in another scenario and still manages to produce the same result (Creswell 2013). In the same vein, BC Campus Education (2017) defines reliability as the ability for a measurement from a study to be consistent after being retested. The focus of reliability is on quality after a period of time. The various types of reliability are test-retest reliability, inter-method reliability and inter-rater reliability. First, the researcher adopted a test-re-test approach by firstly conducting a pilot test. Few months into the study, the researcher conducted the actual test. The researcher noted consistency in the responses during the pilot test and the actual test. Secondly, the researcher measured the scale reliability or internal consistency of the data and obtained a Cronbach's Alpha coefficient value of 0.907 (see Appendix C). Accordingly, Cronbach, (1951), notes that alpha varies from 0-1 and coefficient values ranging from 0.84–0.90 are reliable. This suggests that the Cronbach Alpha Coefficient value of 0.907 shows that the items measured have relatively high internal consistency indicating that the study is reliable.

3.9 Ethical consideration

According to Parveen and Showkat (2017), ethics is defined as morals or principles which guides a person's behavior while research ethics is referred to as doing what is morally and legally right in research. Ethical consideration is done in order to ensure confidentiality and respect for the potential participants. During the course of this study, the researcher first obtained ethical approval from the research ethics office of the University of KwaZulu-Natal. In addition, the researcher adhered to all the ethical guidelines for conducting a research study in order to avoid any form of bias in the event of conducting the research. The respondents were informed that the research was strictly for academic purposes and were issued with consent forms, which was read, understood and endorsed. Furthermore, the respondents were also informed of anonymity, confidentiality and were informed that they could withdraw from participation at any point during the course of the process without any consequences.

3.10 Summary

In conclusion, an overview of this chapter was provided. This was followed by a discussion on the methodological process adopted for the study, which includes, the research philosophy, research design, and the research approach. Furthermore, the chapter presented information on the sampling and sampling strategies adopted. The researcher went further to present information on the population, target population and sample size. The data collection and analysis followed and next was testing of the data quality. The researcher presented information on ethical consideration followed by the concluding thoughts. The next chapter explains the presentation and the discussion of research result.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1. Introduction

The preceding chapter provided information on the research methodology adopted for the study. Data collected are presented, analyzed and emerging findings are discussed appropriately in this chapter.

4.2. Response rate

A total number of 70 questionnaires were personally administered by the researcher and 54 completed questionnaires were retrieved, thus giving a response rate of 77%. According to Mundy (2002), the higher the response rate, the better. The author notes that a response rate of 60% would be marginal, 70% is reasonable, 80% would be good and 90% is excellent. In view of the foregoing, the response rate of 77% derived for this study is considered good.

4.3 Demographic representation of the respondents

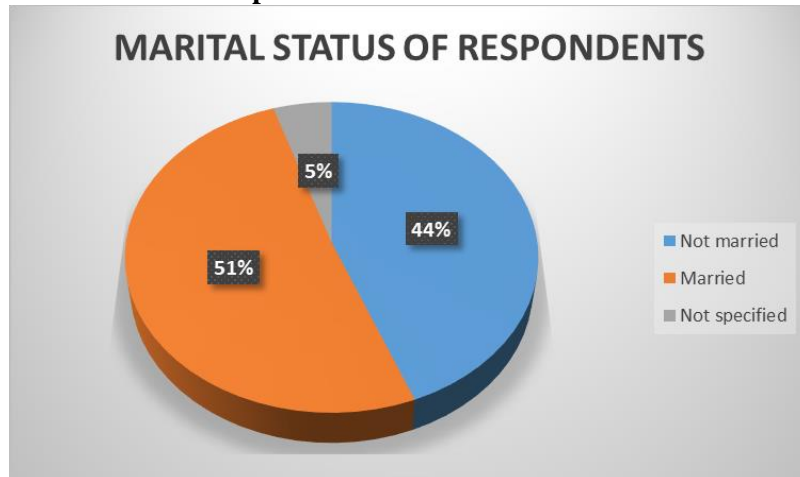
The researcher used some questions in Section A of the questionnaire to elicit information on the demographic profile of the respondents. The specific questions are Questions 1.1 and 1.2 (See Appendix B). The questions were structured to determine the marital status and the possibility of the respondents having children or not. The data from the responses is presented in Table 4.1 and Figures 4.1/4.2.

Table 4.1: Demographic profile of the respondents

Factors	Codes	Frequency	Percentage (%)
Marital status	Not married	22	44
	Married	29	51
	Not specified	3	5
	Total	54	100
With kids	No	21	35
	Yes	30	60
	Not specified	3	5
	Total	54	100

Source: Compiled by the researcher (2019)

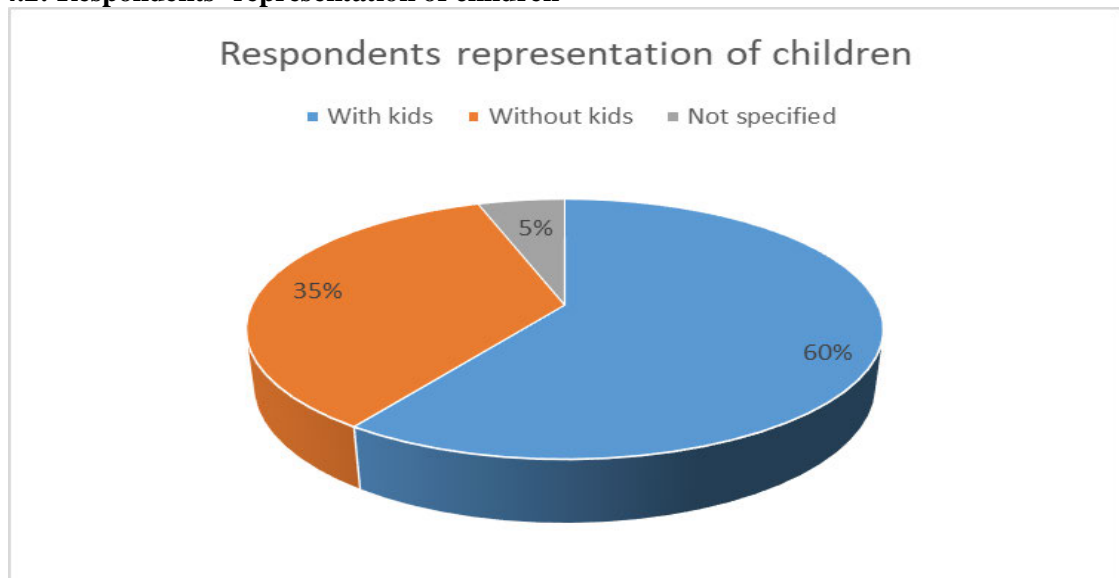
Figure 4.1: Marital status of the respondents



Source: Researcher (2019)

Considering Table 4.1 or Figure 4.1, 44% of the respondents were not married at the time of data collection, 51% were married and 5% remained neutral to the question.

Figure 4.2: Respondents' representation of children



Source: Developed by researcher (2019)

The data collected showed that 60% of the respondents have children, while 35% do not have children and 5% of the respondents preferred to remain neutral on the question

4.3.1 Other information about the respondents

The researcher asked a few more questions to elicit other information about the respondents that may provide input into the study. The questions are listed in Section A of the questionnaire as Q1.3, Q1.4, Q1.5, Q1.6, Q1.7 and Q1.8. Responses from the questions are presented in Table 4.2.

Table 4.2: Information about participants

Factors	Codes	Frequency	Percentage
I have subordinates	No	27	50.0
	Yes	27	50.0
	Total	54	100.0
I have co-workers	No	6	11.1
	Yes	48	88.9
	Total	54	100.0
I have a superior/s	No	2	3.7
	Yes	52	96.3
	Total	54	100.0
I have a good relationship with my subordinates	No	10	18.5
	Yes	29	53.7
	Neutral	15	27.8
	Total	54	100.0
I have a good relationship with my co-workers	No	4	7.4
	Yes	45	83.3
	Neutral	5	9.3
	Total	54	100.0
I have a good relationship with my superiors	No	3	5.6
	Yes	47	87.0
	Neutral	4	7.4
	Total	54	100.0

Source: Compiled by the researcher 2019

Data emerging from Table 4.2 shows an equal percentage of the respondents (50.0%) admitted to having and not having subordinates. While 11.1% do not have co-workers, 88.9% of the respondents agreed to have co-workers. Furthermore, 3.7% of the respondents have no superior whereas 96.3% of the respondents have superiors. 18.5% of the respondents do not have good relationships with their subordinates, while 53.7% of the respondents have good relationship with their subordinates whereas 27.8% of the respondents chose to remain neutral. The table shows that 18.5% of the respondents do not have good relationships with their co-workers and 57.3% have good relationships. A fair representation of the respondents (27.8%), remained neutral to the question. In terms of good relationship, 83.3% of the respondents attested to having a good relationship with their co-workers,

while 7.4% do not and 9.3% of the respondents chose to remain neutral. Regarding relationships with the superiors, 5.6% of the respondents do not have good relationships with their superiors, while 87.0% have good relationships with their superiors and 7.6% of the respondents chose to remain neutral.

4.4 Test of Research Objectives

As noted in Chapter 1, Section 1.5, there are four research objectives for the study. In addressing the research objectives, the researcher used a 5 Point-Likert scale. The researcher considered all responses alluding to strongly agree and agree as 'positive' and analysed them together. Similarly, the responses indicating disagree and strongly disagree were grouped towards 'negative'. The data emerging from the responses are presented in tables and figures followed by discussions. The findings are presented in four sections. Firstly, the identification of the implications of job stress on employee performance levels is presented; Secondly the identification of the determinants of job stress for female academics at the University of KwaZulu-Natal is provided followed by data how job stress contributes to job dissatisfaction amongst female academics and finally how job stress affects the personal lives of female academics is given. In the discussion of the results, the neutral answers were not discussed because they have no impact on the results of the study.

For each research objective tested, a correlation analysis was conducted to ascertain the level of relationship between the variables. The researcher chose Pearson correlation which was found suitable for the study. According to Sedgwick (2012), the Pearson correlation measures the strength of association between two variables and represented as 'p' - the product moment correlation coefficient. The value of the correlation varies between +1 and -1. A Pearson correlation coefficient from 0.1 to 0.3 or -0.1 to -0.3 is small; 0.3 to 0.5 or -0.3 to -0.5 is medium; and from 0.5 to 0.1 or -0.5 to -1.0 is large (Frey, 2018). The Pearson correlational test was conducted at 2-tail because of multiple variables and Level of Significance 0.01.

4.4.1 Test of Research Objective 1

Performance levels: The first objective of the study is to ascertain the implication of job stress for employee performance levels. The researcher asked 4 questions (See Appendix I, section B, Q2.1, Q2.2, Q2.3 and Q2.4) to elicit information addressing the impact of job stress on employee performance. Responses to each of the questions were addressed separately. Question 2.1, section B of the questionnaire attempted to ascertain how timeously respondents finish job tasks within the working hours provided. The responses were presented in Table 4.3 and Figure 4.3

Table 4.3: Time and Task

Level of agreement	Frequency	Percent
Strongly disagree	3	5.6
Disagree	17	31.5
Neutral	3	5.6
Agree	23	42.6
Strongly agree	8	14.8

Source: Compiled by the researcher (2019)

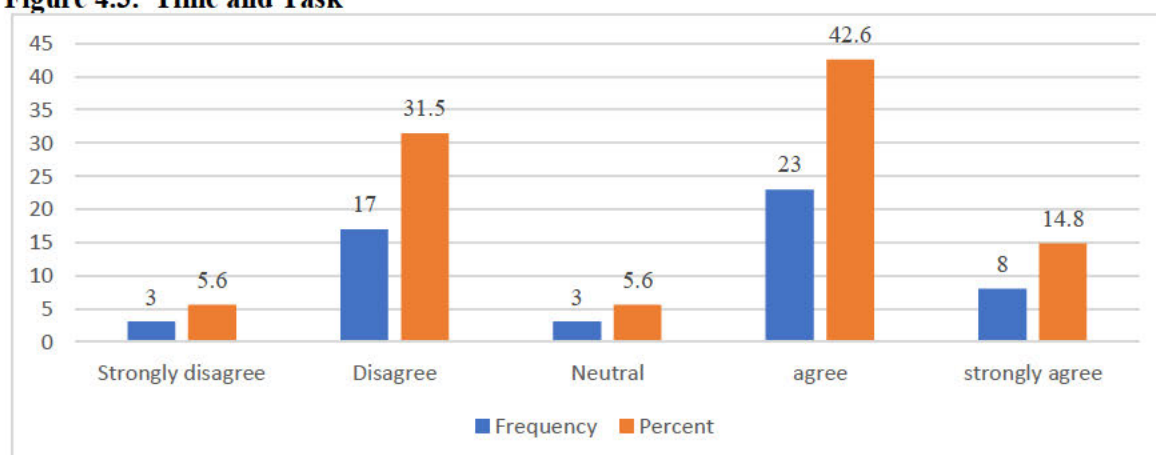
Figure 4.3. Time and Task

Table 4.3 and Figure 4.3 showed that while 37.1% of the respondents attested that the time allocated for their jobs is appropriate, 57.4% indicated that working time allocated to accomplish their jobs on a daily basis is not enough and 5.6% percent of the respondents remained neutral.

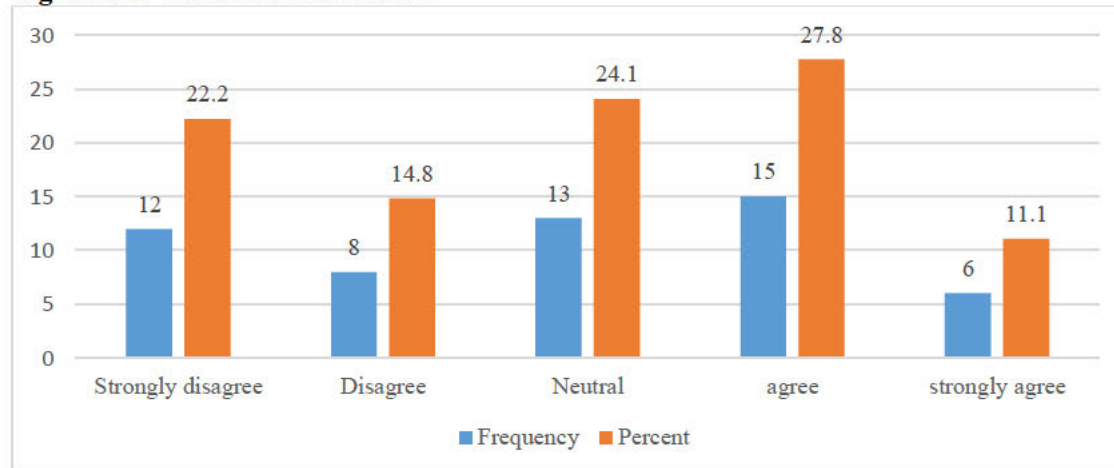
Similarly, Q2.2 addressing the same research objectives attempted to ascertain the effect of work-load on the respondents' well-being. Data emanating from the question is presented in Table 4.4 and Figure 4.4.

Table 4.4: Workload and Health

Level of agreement	Frequency	Percent
Strongly disagree	12	22.2
Disagree	8	14.8
Neutral	13	24.1
Agree	15	27.8
Strongly agree	6	11.1

Source: Compiled by the researcher (2019)

Figure 4.4: Workload and Health



Source: Compiled by the researcher (2019)

Data shows that 38% of the respondents agreed with the statement showing that workload affects their health and 37% disagreed, while 24.1% neither agreed nor disagreed with the statement.

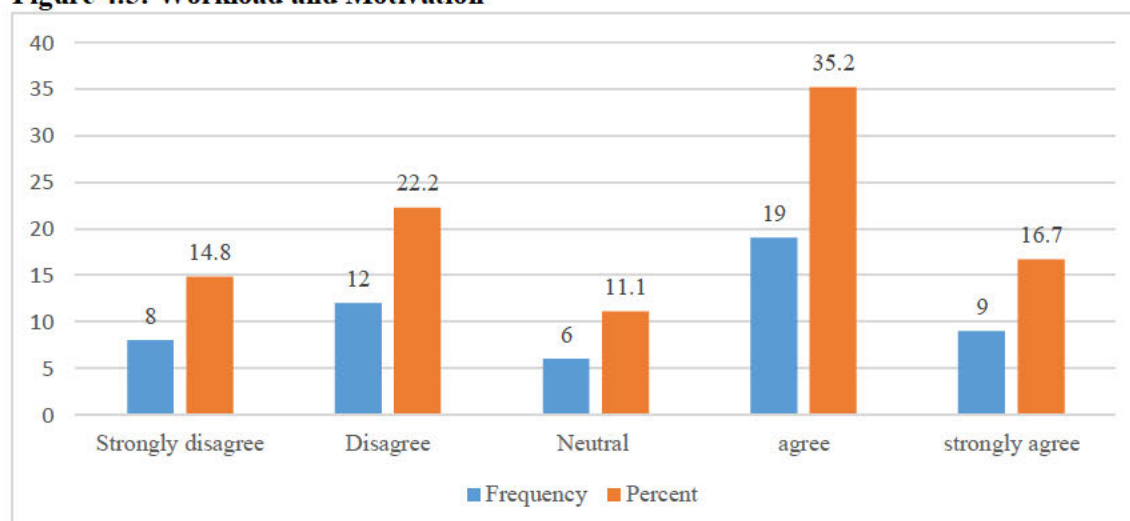
Likewise, Q2.3 addressed the effect of workload on motivation and the data is presented in Table 4.5 and Figure 4.5.

Table 4.5: Workload and Motivation

Level of agreement	Frequency	Percent
Strongly disagree	8	14.8
Disagree	12	22.2
Neutral	6	11.1
Agree	19	35.2
Strongly agree	9	16.7

Source: Compiled by the researcher (2019)

Figure 4.5: Workload and Motivation



Source: Compiled by the researcher (2019)

Data from Table 4.5 and data from Figure 4.5 indicates that 37% of the respondents are not demotivated by the amount of workload, while 51.9% are demotivated when the workload is not assigned to expectations. However, 11.1% of the respondents remained neutral.

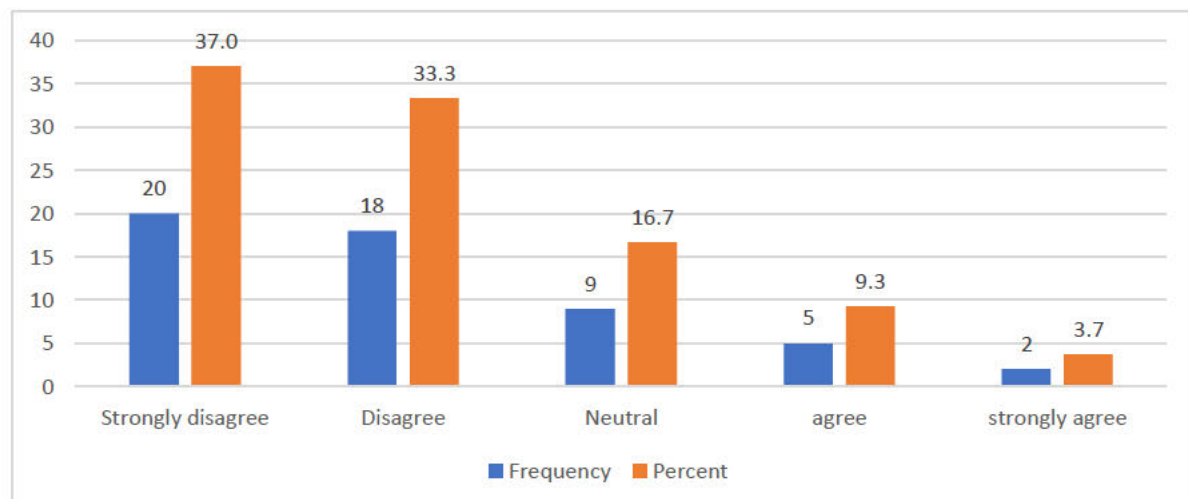
Question 2.4 was structured to ascertain the respondents' level of job satisfaction. Data emanating from the responses are presented in Tables 4.6 and Figure 4.6.

Table 4.6: Level of job satisfaction

Level of agreement	Frequency	Percent
Strongly disagree	20	37.0
Disagree	18	33.3
Neutral	9	16.7
Agree	5	9.3
Strongly agree	2	3.7

Source: Compiled by the researcher (2019)

Figure 4.6: Level of job satisfaction



Source: Compiled by the researcher (2019)

Data from Table 4.6 and Figure 4.6 showed that 70.3% of the respondents are satisfied with their jobs and do not wish to change jobs, while 13% of the respondents are not satisfied and wish to change jobs if the opportunity arises, while, 16.7% are neither satisfied nor unsatisfied.

Furthermore, the researcher conducted a correlational analysis and presented the findings on Table 4.6.1.

Table 4.6.1 A Correlational analysis for RO1

Correlations		Time/Task	Workload/Health	Workload/Motivation	Job Satisfaction
Time/Task	Pearson Correlation	1	.31	.493**	.283*
	Sig. (2-tailed)		0.019	0	0.038
	N	54	54	54	54
Workload/Health	Pearson Correlation	.31	1	.300*	.397**
	Sig. (2-tailed)	0.019		0.027	0.003
	N	54	54	54	54
Workload/Motivation	Pearson Correlation	.493*	.300	1	.548**
	Sig. (2-tailed)	0	0.027		0
	N	54	54	54	54
Job Satisfaction	Pearson Correlation	.283*	.397**	.548**	1
	Sig. (2-tailed)	0.038	0.003	0	
	N	54	54	54	54
* Correlation is significant at the 0.05 level (2-tailed).					
** Correlation is significant at the 0.01 level (2-tailed).					

Source: Computed by the researcher, 2020

As per Table 4.6.1, at level of significance 0.01, time/task correlates with workload and health at 'p' = 0.019 while workload/motivation and job satisfaction correlates at p is 0.003.

4.4.1.1. Discussion of findings on research objective 1

The findings from the tested research objective 1, indicate concerns emerging from three variables, namely time allocation and task completion; workload and health and workload and motivation. The issue of time allocation and task completion within the academic environment has long been researched either for academic staff or for students. The changing landscape in the academic environment has triggered increasing workload for academic staff thus questioning the time allocation for task completion. Cannon (1996) has long noted the need for strategic time allocation for academic staff. Similarly, Jackson's (2009) study on realistic time management for organisational productivity addressed the issue of the strategic allocation of time. A fairly recent study by Rombe (2016) on time management for academic staff in a university environment found that time has a strong correlation with self-management, productivity and the organisational environment. In all these studies, the time allocated to academic task completion was found to be challenging. These findings concur with the findings of this study that time and task are usually not appropriately assigned, thus contributing to the stress levels of academics.

On workload and health, there appeared to be mixed feelings emerging from respondents. While a reasonable percentage of respondents believed that workload affects their health, a similar percentage believed that workload has no effect on their health. Irrespective of these, studies have shown that heavy workload affects employees' health and well-being. Picincu (2019) found that heavy workload causes

anxiety, depression and mental stress in employees. Erat, Kitapçı and Çömez, (2017) found that workload contributes to emotional stress. In another study conducted by Watts and Robertson (2011), the authors found that burnout as a result of heavy workload affected academic staff of the university sampled. In a similar vein, a study conducted by Johari, Fee and Zati (2018), revealed that workload amongst other variables has no significant impact on job performance. Other studies have also shown that with a good stress management strategy, workload would have a minimal effect on an individual (Osaat and Ekechukwu, 2017; Rombe, 2016; Amalu, 2014; Barrett and Barrett, 2007).

On the workload and motivation, the findings of the study showed that the respondents were demotivated with heavy workloads, which may lead to issues of attrition amongst academics. The findings of the study by Ngantung, Saerang and Pandowo (2015) showed that workload has a significant effect on employee turnover. Bigirimana, Sibanda and Masengu (2016) tested several aspects of working conditions against motivation and found workload to be one of the variables leading to attrition in the academic environment.

In support of the on-going discussion, as per Table 4.6.1, each variable when tested against itself showed perfect correlation and equals to 1. Data from the table shows that at level of significance 0.01, time given to complete task correlates moderately with workload and health at ' ρ ' = 0.317. This means that there is a positive relationship between time, and workload/health. Similarly, the ρ value for workload/motivation and job satisfaction is 0.548 which shows a strong strength of relationship. In view of the foregoing, these studies concur with the findings of this study that time allocation for task completion; workload and health and workload and motivation are still concerned within the academic environment. On a general note, these variables contribute to stress levels and affect academic performance. Archibong, Bassey and Efiom (2010) posit that workload (teaching and research) contributes positively to the stress levels of academics support this assertion. Although the study sample was not specifically females, however, a significant percentage of the population size were female academics.

4.4.2 Test of research objective 2

The second objective of the study is to ascertain the causes of job stress for female academics within the University of KwaZulu-Natal's PMB campus. For obtaining in-depth knowledge on the research objective 2, the researcher asked 7 questions (See Appendix I, Section C) and the responses to these questions were presented separately.

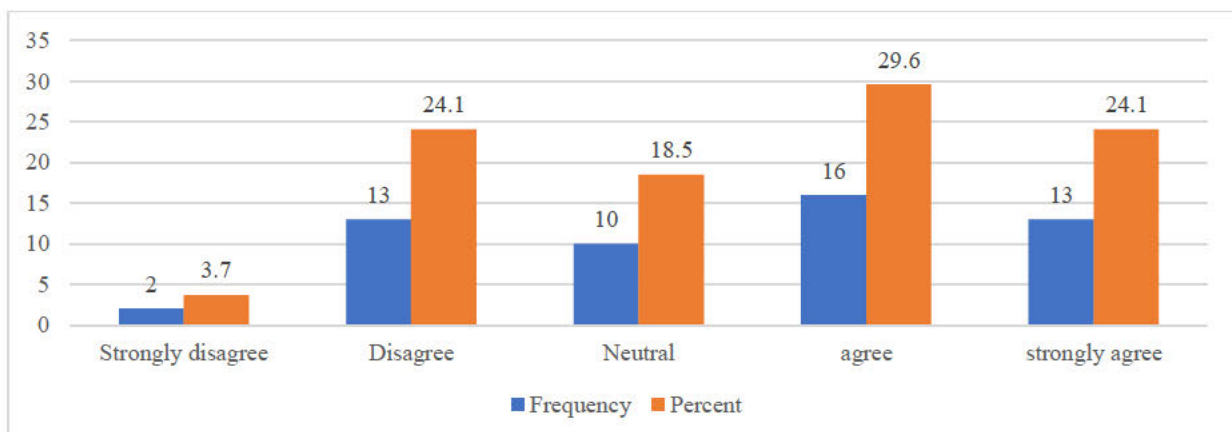
Question 3.1 ascertained the amount of time allocated for the respondents to carry out their tasks. Although a similar question has been tested under research objective 1 (time and task allocation), it was framed from a general perspective. Here, the question was more specific in terms of the amount of time allocated for specific tasks. The responses are presented in Table 4.7 and Figure 4.7.

Table 4. 7 Time given for task completion

Level of agreement	Frequency	Percent
Strongly disagree	2	3.7
Disagree	13	24.1
Neutral	10	18.5
Agree	16	29.6
Strongly agree	13	24.1

Source: Compiled by the researcher (2019)

Figure 4.7. Time given for task completion



Source: Compiled by the researcher (2019)

Table 4.7 and Figure 4.7 show that 53.7 % of the respondents agreed that the amount of time allocated for tasks is inadequate and rarely allows other pending things to be done whilst 27.8% of the respondents disagrees with the assertion and 18.5% neither agreed nor disagreed.

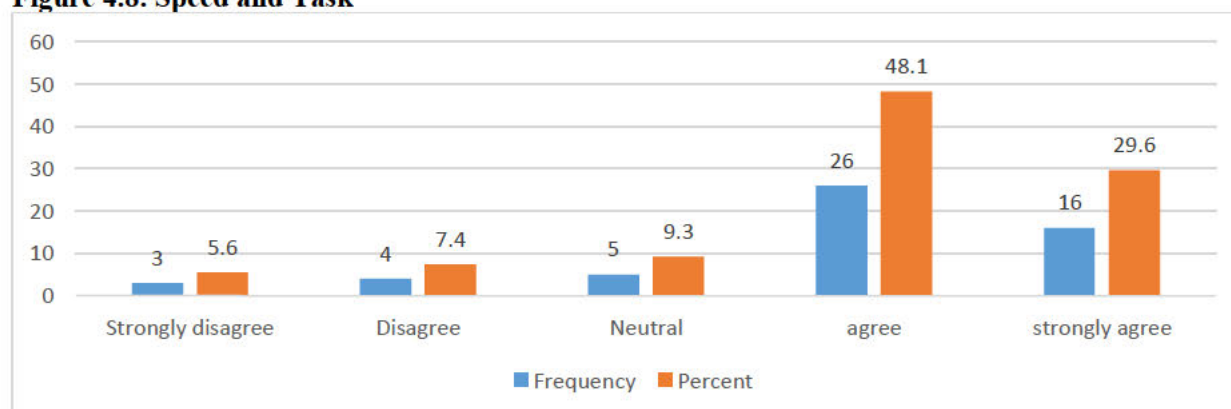
Question 3.2 was stated to elicit the speed at which a task is expected to be completed. Responses to the question are presented in Table 4.8 and Figure 4.8.

Table 4.8. Speed and Task

Level of agreement	Frequency	Percent
Strongly disagree	3	5.6
Disagree	4	7.4
Neutral	5	9.3
Agree	26	48.1
Strongly agree	16	29.6

Source: Compiled by the researcher (2019)

Figure 4.8. Speed and Task



Source: Compiled by the researcher (2019)

Data from Table 4.8 and Figure 4.8 shows that an overwhelming 77.7% of the respondents agreed that their jobs requires them to work very fast, whereas 13% of the respondents disagreed with the assertion and 9.3% remained neutral.

Question 3.3 was structured to elicit information on the respondent's use of personal time to achieve deadlines. The responses are presented in Table 4.9 and Figure 4.9.

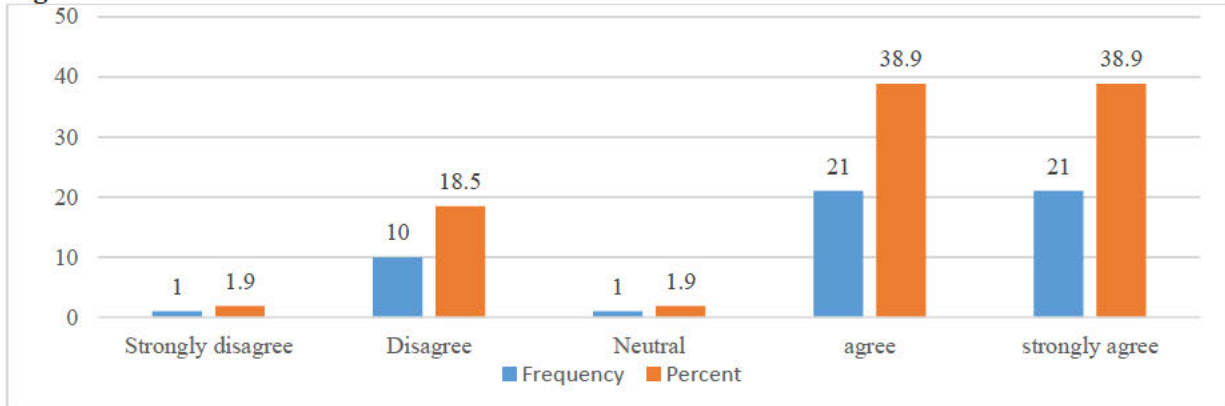
Table 4.9: Personal time and Deadlines

Level of agreement	Frequency	Percent
Strongly disagree	1	1.9
Disagree	10	18.5

Neutral	1	1.9
Agree	21	38.9
Strongly agree	21	38.9

Source: Compiled by the researcher 2019

Figure 4. 9. Personal time and Deadlines



Source: Compiled by the researcher 2019

Data from Table 4.9 and Figure 4.9 shows that an overwhelming 77.8% of the respondents use personal time to meet up with deadlines, while 20.4% disagreed with the assertion and 1.9% were neutral.

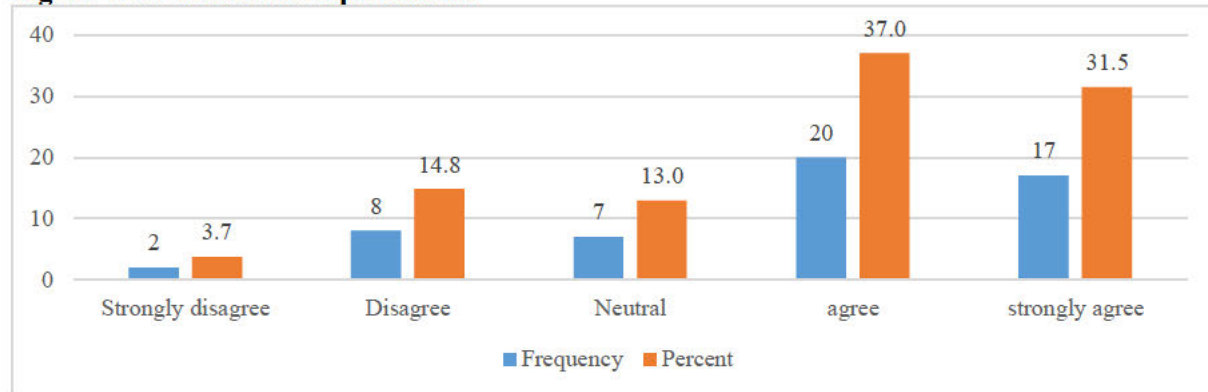
Question 3.4 was structured to measure the workload requirements of academics. The responses to the question are presented in Table 4.10 and Figure 4.10.

Table 4.10: Workload requirements

Level of agreement	Frequency	Percent
Strongly disagree	2	3.7
Disagree	8	14.8
Neutral	7	13.0
Agree	20	37.0
Strongly agree	17	31.5

Source: Compiled by the researcher (2019)

Figure 4.10: Workload requirements



Source: Compiled by the researcher (2019)

Data from Table 4.10 and 4.10 Figure shows that 68.5% of the respondents admitted to an overwhelming workload, while 18.5% disagreed and 13% were neutral.

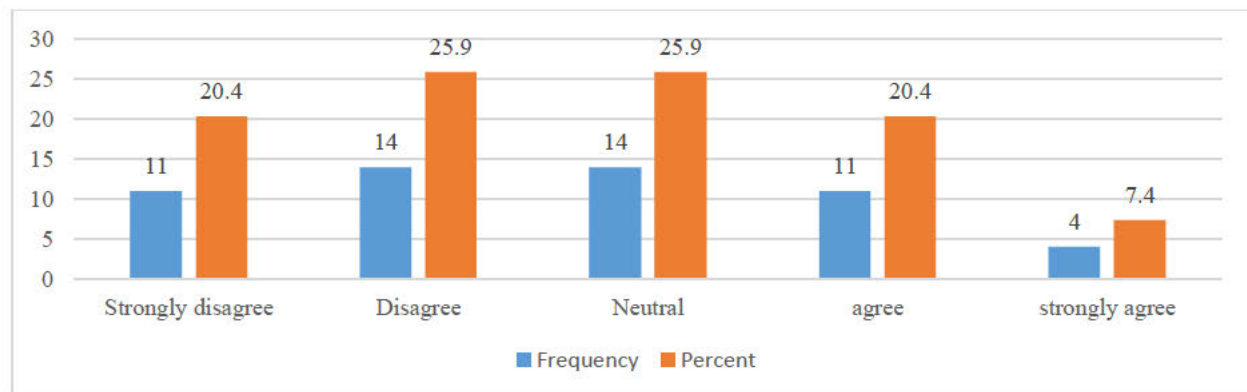
Question 3.5 was structured to elicit information on workload as a determinant of health-related stress. The responses are presented in Table 4.11 and Figure 4.11.

Table 4.11 Workload as a stressor

Level of agreement	Frequency	Percent
Strongly disagree	11	20.4
Disagree	14	25.9
Neutral	14	25.9
Agree	11	20.4
Strongly agree	4	7.4

Source: Compiled by the researcher (2019)

Figure 4.11: Workload as a stressor



Source: Compiled by the researcher (2019)

Data from Table 4.11 and Figure 4.11 show that 27.8% of the respondents consider workload a stressor while 46.3% disagreed with workload being a stressor and a good percentage of the respondents (25.9%) chose not to respond to the question.

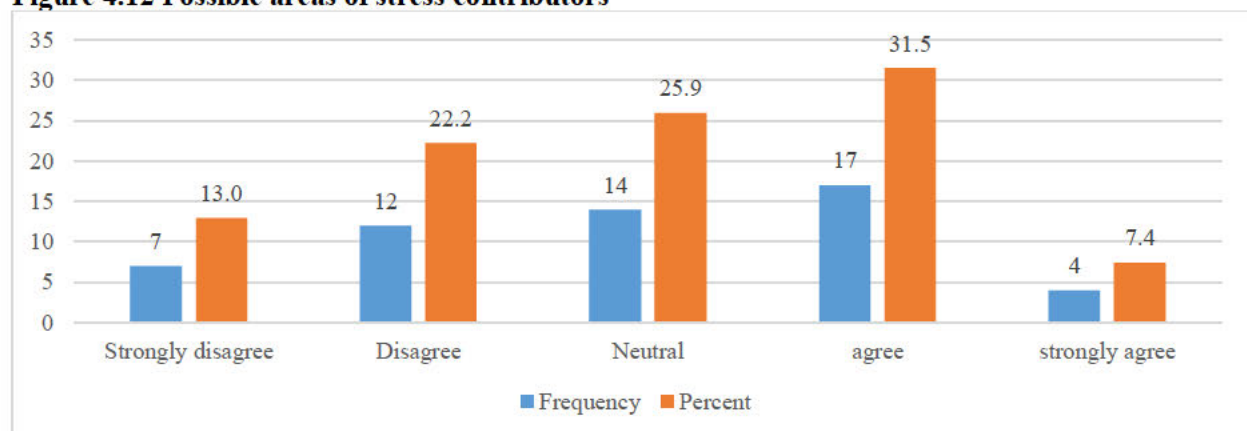
Question 3.6 elicited information on the possibility of aspects of stress contributors emanating from co-workers, subordinates and superiors. Responses are presented in Table 4.12 and Figure 4.12.

Table 4.12: Possible areas of stress contributors

Level of agreement	Frequency	Percent
Strongly disagree	7	13.0
Disagree	12	22.2
Neutral	14	25.9
Agree	17	31.5
Strongly agree	4	7.4

Source: Compiled by the researcher (2019)

Figure 4.12 Possible areas of stress contributors



Source: Compiled by the researcher (2019)

Data from Table 4.12 and Figure 4.12 shows that 38.9% of the respondents indicated the possibility of stress emanating from co-workers, subordinates and superiors, whilst 35% of the respondents disagreed with the assertion and 25.9% were neutral.

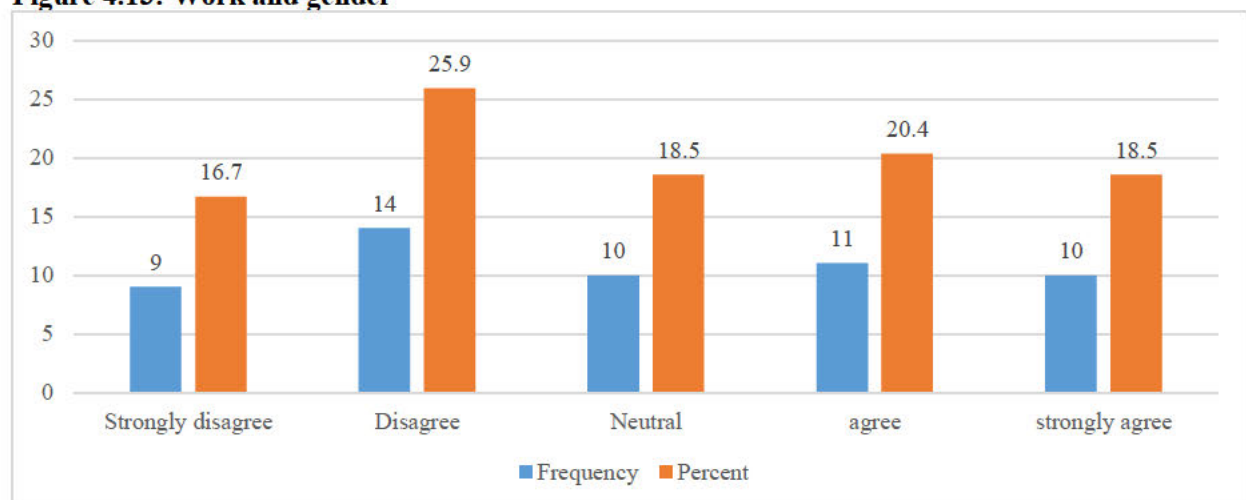
Question 3.7 ascertained work pressure from a gender perspective. Responses to the question are presented in Table 4.13 and Figure 4.13.

Table 4.13: Work and gender

Level of agreement	Frequency	Percent
Strongly disagree	9	16.7
Disagree	14	25.9
Neutral	10	18.5
Agree	11	20.4
Strongly agree	10	18.5

Source: Compiled by the researcher (2019)

Figure 4.13: Work and gender



Source: Compiled by the researcher (2019)

Data from Table 4.13 and Figure 4.13 indicate that 42.6% of the respondents disagreed with the assertion, 38.9% agreed and 18.5% of the respondents remained neutral.

4.4.2.1 Discussion of findings on research objective 2

The correlational result for the tested research objective 2 shows p at 0.382 between time and task, 0.438 between deadline and workload, 0.560 for workload a stressor and shows no gender bias in

workload allocation See Appendix . Data from the tested research objective covers the amount of time given for tasks, speed and task completion, personal time and deadlines, workload requirements, workload as a stressor, other contributors of stress and workload and gender.

Academic jobs entail vast activities such as preparing for lectures, teaching, research, postgraduate supervision, counselling, and community engagement. Time allocation showed moderate positive correlation at $p = 0.382$ with task. Time allocation to academic activities have been long debated and across institutions has remained an area of high concern (Milem, Berger & Dey, 2000). Boss and Eckert (2004) shared similar views in which the authors noted how time flies and academics at the end of the day do not feel satisfied with accomplishing the requirements of the day. Such allocation of time varies considerably amongst academics according to their capabilities, background, expertise and experience (Kenny & Fluck, 2014). This could well explain why slightly above half of the respondents admitted to not having enough time to carry out their jobs, while a reasonable percentage admitted that time is not a problem in completing their tasks. As such, the pattern spreads to the issue of speed in task completion, which Anderson (2006) and Houston, Meyer and Paewai, (2006) highlighted in their research on the self-management of time amongst academics. In view of that, Flaherty (2014) also admitted to academics not having enough time to accomplish their tasks due to the work requirements most especially the associated administrative workloads.

Similarly, the data showed a p of 0.438 between deadline and workload, indicating a medium positive relationship. This means that academics sampled in this study work longer hours to achieve deadlines. In support of the findings, the intensification of academic work has been aligned to changes in the global environment. Researchers highlighted examples such as increased student-to-staff ratios, external performance measures for research and teaching performance; increased administrative jobs, extended teaching periods; and the introduction of technology-based teaching have all added to the academic workload (Kenny & Fluck 2017; Riddle, Harmes & Danaher 2017; Kenny, 2016; Cannizzo & Osbaldiston, 2015; Currie & Eveline, 2011; Fredman & Doughney, 2012; Lyons & Ingersoll, 2010). As a result, respondents admitted that poor time allocation to activities and the associated need to complete the task early has resulted in the use of their personal time in meeting deadlines. In view of this, Mathews (2018) notes the brutal nature of workload requirements in the academic environment. In support of this, an anonymous academic in The Guardian (2018) newspaper expressed views the dilemma of landing a permanent academic job, but the inability to celebrate it due to the workload requirement. McKenna's (2018) research also indicated that academics incorporate personal time in meeting deadlines.

Furthermore, workload requirements correlates positively with stress at $p = 0.560$ making workload a stressor. Research studies have proven workload requirements as contributors to stress in the academic environment (Picincu 2019; Erat, Kitapçı & Çömez, 2017). Findings from this study shows that

stressors can emerge from co-workers, subordinates and superiors. This concurs well with other studies, which admitted the same. Tapper (1998) had long noted that the move away from a collegiate culture of cooperation and shared values in which Trow (1993) and Sarros, Gmelch and Tanewski, (1998), highlighted the consequences as increased stress, lower morale and crises of professional identity. Findings from other studies within this domain also show that stressors could emanate from high self-expectations, poor interactions with colleagues, inequality in the system and role conflict amongst peers (Chang and Lu, 2007; Ofoegbu & Nwadiani, 2006). Asegid, Belachew, & Yimam, (2014) findings showed that co-worker cohesion and cooperation remains one of the major factors contributing to academic job stress. Evidence from a fairly recent research shows that the trend persists (Richardson 2019; Bowen, Rose & Pilkington 2016).

Data showed that slightly higher percentage of the respondents on the view from a gender perspective did not feel gender-related stress. The Pearson correlational measurement found gender perfect at $\rho = 1$. This means that gender is not significant with workload, female academics feel work pressure just like their male counterpart. This finding counters other studies that found that stressors mostly emanate from gender stereotypes which put more pressure on women (Engle, 2012; Bezuidenhout & Cilliers, 2010; Anderson, Richard & Saha, 2002).

Thus, the findings of research objective 2 have shown the complex nature of stress determinants in the academic environment. These findings concur with some of the sources of stress in the academic environment presented earlier in Chapter 2.

4.4.3 Test of Research Objective 3

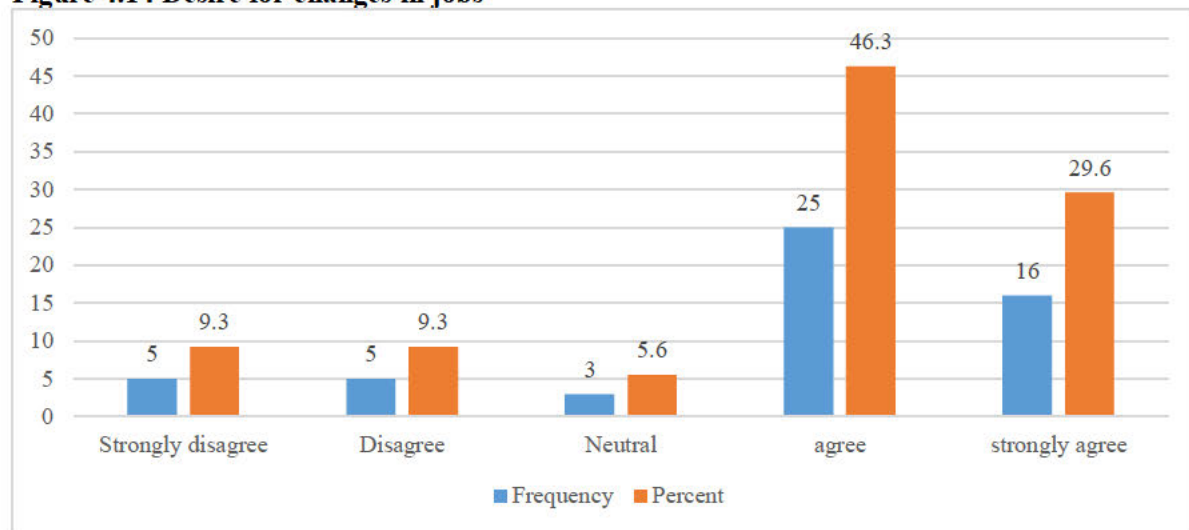
To establish the extent job stress contributes to job dissatisfaction amongst female academics at the University of KwaZulu-Natal and to elicit information to answer the research objective, the researcher structured three questions, Q4.1, Q4.2 and Q4.3 (see Appendix 1, Section C). The responses to each of the questions is presented separately in Table 4.14 and Figure 4.14.

Q4.1 was structured to elicit information on the respondents' willingness to accept any form of changes to their jobs. Responses to the question are presented in Table 4.14 and Figure 4.14.

Table 4.14: Desire for changes in jobs

Level of agreement	Frequency	Percent
Strongly disagree	5	9.3
Disagree	5	9.3
Neutral	3	5.6
Agree	25	46.3
Strongly agree	16	29.6

Figure 4.14 Desire for changes in jobs



Data from Table 4.14 and Figure 4.14 show that 75.9% of the respondents would love aspects of their jobs to be changed; 18.6% disagreed with the assertion while; 5.6% of the respondents chose to stay neutral.

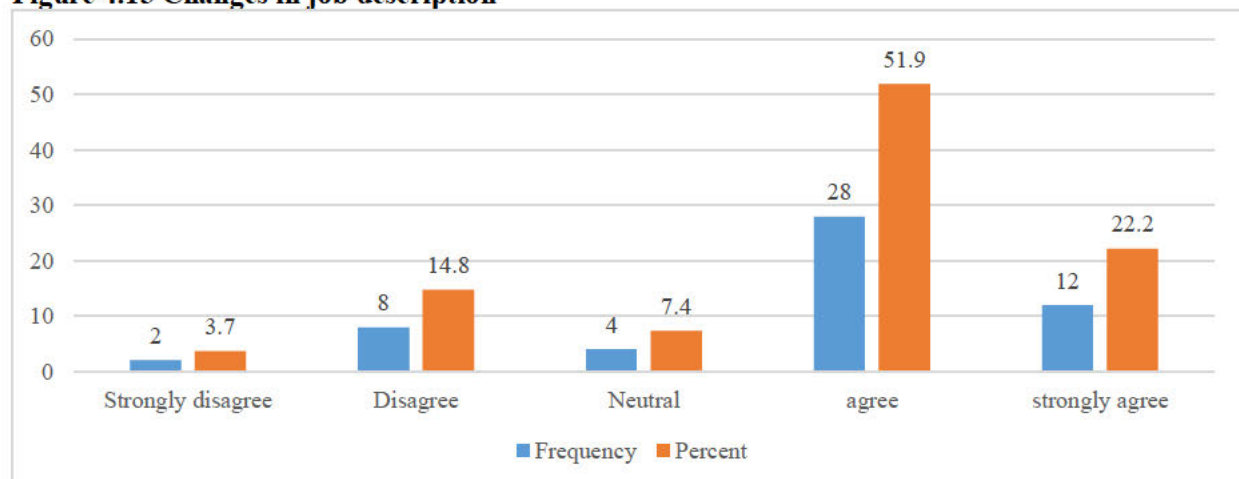
Q4.2 was asked to elicit information on the specific aspects of the job description that the respondents may want to be changed. Responses are presented in Table 4.15 and Figure 4.15.

Table 4.15: Changes in job description

Level of agreement	Frequency	Percent
Strongly disagree	2	3.7
Disagree	8	14.8
Neutral	4	7.4
Agree	28	51.9
Strongly agree	12	22.2

Source: Compiled by the researcher (2019)

Figure 4.15 Changes in job description



Source: Compiled by the researcher (2019)

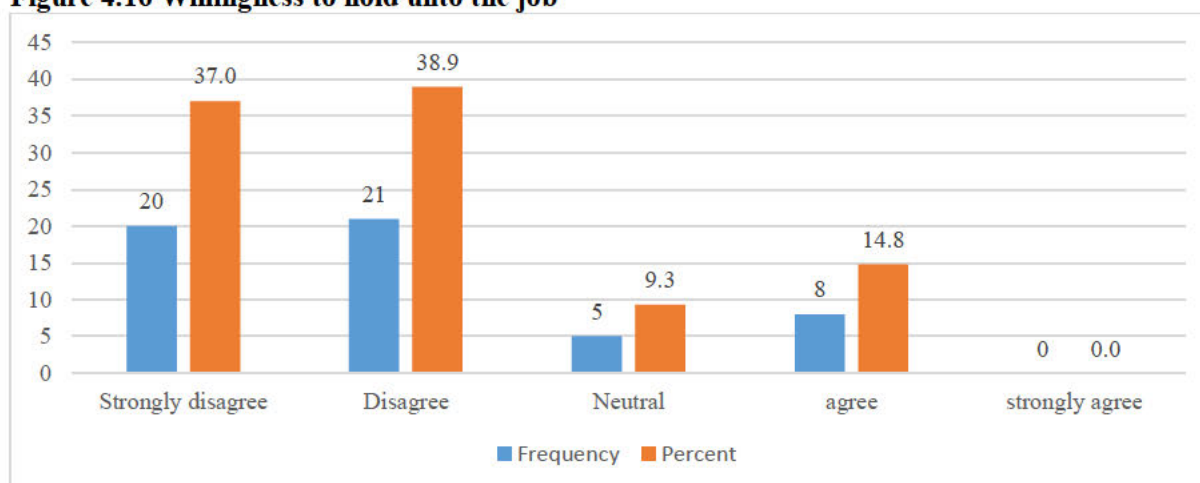
The data from Table 4.15 or Figure 4.15 shows that an overwhelming 74.1% of the respondents would like changes to their job description; 18.5% do not wish to change any aspect of their job description and 7.4% neither agreed nor disagreed with the statement.

Q4.3 was asked to elicit information on the respondents' willingness to hold onto their jobs and the responses are presented in Table 4.16 and Figure 4.16.

Table 4.16: Willingness to hold onto the job

Level of agreement	Frequency	Percent
Strongly disagree	20	37.0
Disagree	21	38.9
Neutral	5	9.3
Agree	8	14.8
Strongly agree	0	0.0

Figure 4.16 Willingness to hold onto the job



Source: Compiled by the researcher (2019)

Data from Table 4.16 or Figure 4.16 indicated that 14.8% of the respondents are willing to give up their jobs due to heavy workload, while an overwhelming number of respondents, (75.9%) disagreed with the statement. A small percentage of the respondents, (9.3%) remained neutral.

4.4.3.1 Discussion of findings on research objective 3

The data from the tested research objective addressed the respondents' general perceptions on the desire for change or aspects of the job description and willingness to change jobs. Findings from the data showed that more than three-quarters of the respondents showed positive perceptions towards either changes to the job or changes to specific aspects of the job description. This is supported by the Pearson

correlational coefficient found strong at $p = 0.729$. This finding concurs well with other similar studies. In a study conducted by Bezuidenhout (2015) on the implications for academic workload of the changing role of distance educators, the author found desire for educators to change specific aspects of workload. The author noted the complex task of academics in balancing teaching, research, academic citizenship and community engagement roles. Ballet and Kelchtermans (2008) and Houston, Meyer and Paewai (2006) attested to similar assertions for academic job descriptions undergoing major changes and academics' desire for a review of workloads.

Similarly, the p value at 0.385 is moderate meaning that respondent's willingness to resign from the job was minimal. This may as well point to the idea of the fear of the unknown and other socio-economic factors such as increasing unemployment. The Guardian (2018) noted the difficult labour market that academics find themselves in due to societal and socio-economic reasons. It is therefore worth noting that although the data may have revealed the respondents' unwillingness to change or resign from their jobs, findings also indicated that a willingness to change aspects of the jobs contributes to job dissatisfaction. Paul and Phua (2011), in their study comprising of both male and female academics showed that there was a very significant level on job satisfaction amongst the academic employees with a review on appropriate alignment of job description amongst others.

4.4.4 Test of research objective 4

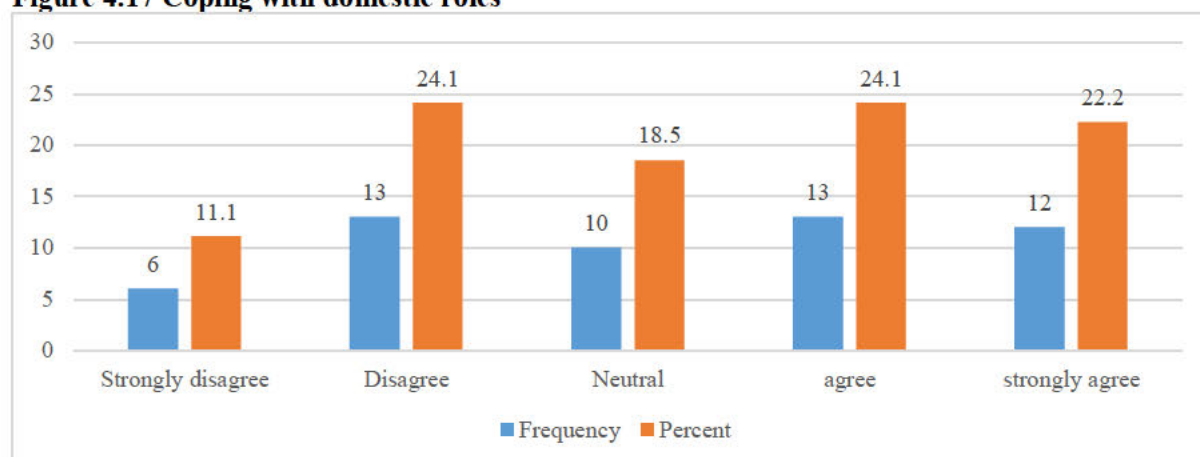
To determine the extent to which job stress affects the personal lives of female academics. To address this research objective, the researcher structured 2 questions, Q5.1 and Q5.2. (see Appendix 1, section C). As presented previously in other objectives, responses to each question are presented in tables and figures.

Q5.1 was structured to elicit information on the complex nature of female academics' role. The data from the question is presented in Table 4.17 and Figure 4.17.

Table 4.17: Coping with domestic roles

Level of agreement	Frequency	Percent
Strongly disagree	6	11.1
Disagree	13	24.1
Neutral	10	18.5
Agree	13	24.1
Strongly agree	12	22.2

Figure 4.17 Coping with domestic roles



Source: Compiled by the researcher (2019)

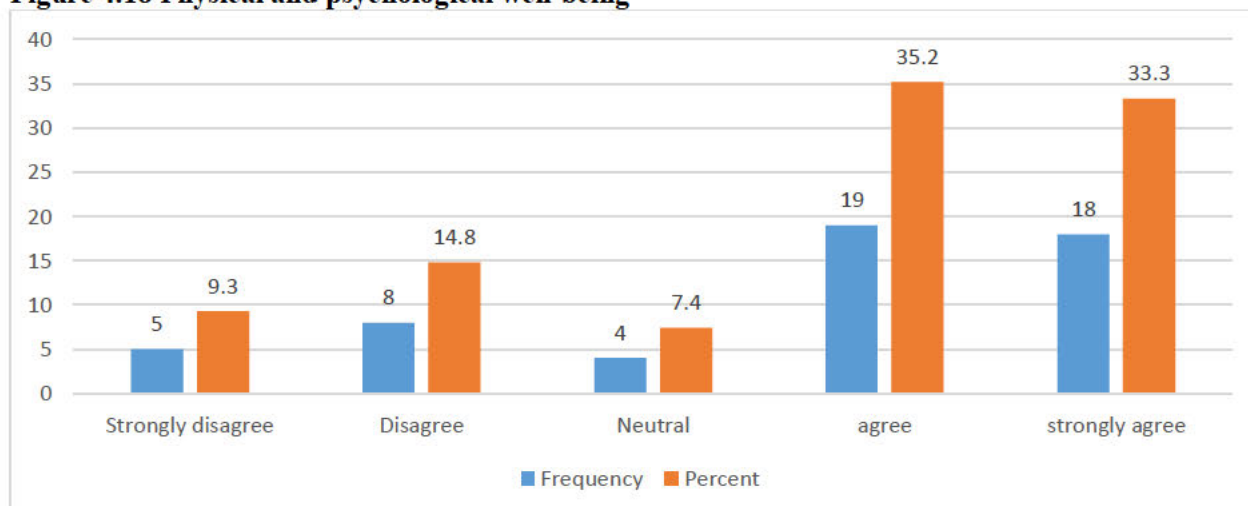
The data from Table 4.17 or Figure 4.17 shows that 46.3% of the respondents have difficulty in coping with domestic roles in addition to their academic role. A good percentage of the respondents (35.2%) are able to balance both domestic and academic roles, while respondents who chose not to answer represents 18.5% of the sample.

Q5.2 was asked to measure the respondents' physical and psychological well-being after a day's work. The responses are presented in Table 4.18 and Figure 4.18.

Table 4.18: Physical and psychological well-being

Level of agreement	Frequency	Percent
Strongly disagree	5	9.3
Disagree	8	14.8
Neutral	4	7.4
Agree	19	35.2
Strongly agree	18	33.3

Figure 4.18 Physical and psychological well-being



Source: Compiled by the researcher (2019)

Data from Table 4.18 or Figure 4.18 shows that 68.5% of the respondents displayed aspects of headaches, fatigues, lack of concentration and sometimes depression after a hectic day's work; 24.1% disagreed with the statement and 7.4% remained neutral.

4.4.4.1 Discussion of findings on research objective 4

The findings of the study covered 2 areas: coping with domestic work and maintaining well-being. The variable pertaining to well-being was tested earlier in responses alluding to research objectives 1 and 3. Responses to coping with domestic roles showed mixed reactions. While slightly below half of the respondents are not able to cope with domestics' chores, a good percentage of the respondents are able to manage academic work and domestic chores. Due to these variations in responses, the researcher measured the Pearson correlation and found the coefficient for domestic work and well-being strong at p value of 0.675. The researcher accepted the correlational value meaning that there is a strong correlation between family responsibilities which cuts across academic workload and well-being. While studies have shown that female academics find it difficult coping with academic demands and domestic roles, other studies noted that female academics have the ability to adopt various coping strategies. Günçavdı, Göktürk and Bozoğlu, (2017) studied the challenges facing women academics. The authors found that although academic women in the study valued the experience of being mothers, they were overwhelmed by the workload; lacked administrative support; and suffered from a never-ending struggle to achieve work-life balance. Okpechi, Eloma and Bassey (2016) noted that domestic chores affect women academics negatively in areas such as preparing lectures, marking scripts, research and so forth adversely affects their role performance. Sa'ad's (2014) study on the impact of domestic

responsibilities on married women academics notes the difficulty such women go through in coping with academic and domestic work.

On the contrary, in a study by Fatoki and Kobiowu (2015), the findings showed that the female academics sample employed strategies such as the use of family, spouse/partners and childcare centres to cover up for their periods of absence. Oláh, Richter and Kotowska (2014) noted that the changing roles of men and women placed no limits on the role of men and women in families and society. This benefits women academics who use spouses and families to support and cope with the high demands of their academic workload.

4.6 Summary

This study was underpinned by four research objectives. The findings showed that time allocated to the job, workload and health and the nature of workload affect motivation, which adversely affects the academic's performance. The findings also show that causes of job stress within the limits of this study include time required to complete a task; academics' use of personal time; heavy workload requirements; stress from co-workers, sub-ordinates and supervisors and gender stereotypes. Furthermore, the complex nature of the academic job description contributes to job dissatisfaction and in turn creates a willingness for the female academics to seek a review of their workload. Irrespective of that, findings show that these female academics rarely want to either resign or leave their jobs. The findings of the study also revealed that domestic roles affect female academics either positively or negatively.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Introduction

The previous chapter provided the presentation and discussion of the results of the study which were analysed in line with the four objectives of the study. This chapter presents the conclusion to the study. The conclusion is presented according to each chapter, followed by a general conclusion of the study. Recommendations are also provided to the university on the management of stress for its employees, as well as recommendation for future studies are made. The focus of this study was on the impact of job stress on female academics, using the UKZN PMB campus as the study site. The main research objective of this study was to obtain an in-depth understanding of how job stress affects employee performance.

5.2 Summary of chapters

This dissertation comprises five chapters and a summary of each chapter is presented in the following sections.

5.2.1 Chapter one

This chapter shows that job stress has become a pressing issue in the 21st century work environment. This is due to the nature of the work that people do and the ways in which they carry out their tasks. Another contributing factor to job stress as identified in this chapter is the evolving nature of work-places in the present day. Academic employees have moved from the traditional way of teaching to a more advanced way which includes much research. Chapter One provided an introduction as well as the background to the study, statement of the research problem, research question and the research objectives. The chapter also presented a justification for carrying out the study, a preliminary literature review, the method used to conduct the research as well as the limitations of the study. An outline of the study followed by a conclusion of the chapter was also provided.

5.2.2 Chapter two

This chapter presents the literature review for this study. From the relevant literature reviewed, it was shown that job stress is experienced a great deal in the work-place. Due to the roles that females have to play in their lives outside the work environment, there is an increase in the impact of job stress for female employees. The chapter captures the views of authors and authorities in the field of stress related to jobs, especially for females. Background information on the research study site was discussed in the chapter. Lazarus and Folkman's (1984) theory of stress and coping, Herzberg's et al (1959) 'Two-factor theory of motivation' and the feminist theory were described. South African labour legislation relating

to stress was explored and discussed in the chapter. The chapter also covered strategies used in the management of stress. The gap identified in various studies conducted in the area of job stress was also discussed.

5.2.3 Chapter Three

Chapter Three of the dissertation provided a description of the research methodology adopted in this study. The study used a quantitative research approach. Data was collected with the use of questionnaires and 54 valid questionnaires were retrieved out of the 70 distributed. The chapter also provided the research design of the study, its research approach, and the validity and reliability of the research was also discussed.

5.2.4 Chapter four

This chapter presented the description of the data analysed in the study, as well as the reliability test. The data was analysed using (SPSS), the Statistical Package for the Social Sciences (SPSS) version 24 software. The results were presented and analysed, followed by a discussion of the research findings based on the four research objectives of the study that was supported by relevant literature of similar studies. Based on the findings in this chapter, it can be deduced that most female academics experience job stress due to time allocated for completion of tasks, working with speed to meet deadlines, using personal time to work, exhaustion due to excessive workloads all lead to job stress for female academics on UKZN PMB campus. The finding of the current study showed that job stress affected the personal lives of female academics at the UKZN PMB campus. The impact of stress also reflected in their health as well as on their wellbeing. Another impact of job stress on the personal lives of female academics in UKZN PMB campus was in the area of family time. Job stress impacted on their family time, which led to them having little time to attend to their families. The study shows that the presence of job stress for female academics increases their desire for change in relation to how they carry out their tasks. The results however showed that although they desired change, they still love their jobs and do not wish to switch jobs or careers. In determining the impact of job stress, the study shows that job stress impacted on female academics on the UKZN PMB campus in the areas of their health, their personal lives and their jobs, which result in demotivation for them as well as the desire for change.

The study findings support a few studies which were conducted previously by other scholars and researcher. There are also a few studies which do not corroborate the findings of this study.

5.2.5 Chapter Five

Chapter five is the concluding chapter of the study. It provides a summary, conclusion and recommendation of the entire thesis. It gives a summary of all the chapters that were presented in the study, followed by recommendations from the researcher for future studies.

5.3 Summary of key findings per research objective

This section presents a summary of what each research objective of the study has found after the research was carried out and data analysed.

5.3.1 Summary of findings on research objective 1

To ascertain the implication of job stress for female academics' employee performance level, a total of 4 questions were asked relating to research objective 1. The findings of the study show that factors such as time allocation affect job tasks. The findings also suggest that workload affects female academics' well-being (health in particular). Furthermore, workload is found to be a motivational factor amongst the female academics. Overall, these factors trigger job stress, which affect female academic performance.

5.3.2 Summary of findings on research objective 2

To ascertain the causes of job stress amongst female academics' employees at the University of KwaZulu-Natal and within the limits of this study, stressors found amongst female academics are; time required to complete a task; use of personal time; heavy workload/workload requirements; stress from co-workers, sub-ordinates and supervisors and gender stereotypes. Therefore, findings from research objective 2 conclude that determinants of the stress levels for female academics on the UKZN PMB campus are complex in nature.

5.3.3 Summary of findings on research objective 3

To determine the extent that job stress contributes to job dissatisfaction for female employees. In order to enable the researcher derive answers pertaining to the third research objectives of the study, 3 questions were asked in the questionnaire. Findings from the data show that the complex nature of the academic job description contributes to job dissatisfaction, which in turn pushes for a review of workload/job descriptions. With that said, the findings also show that these female academics rarely want to either resign or leave their jobs.

5.3.4 Summary of findings on research objective 4

To ascertain the extent that job stress affects the personal lives of female academic employees at the University of KwaZulu-Natal, the researcher formulated 2 questions in the questionnaire. The findings from the data showed variations across responses. The findings revealed that domestic roles affect female academics at UKZN either positively or negatively.

5.4 The study recommendations

Based on the findings of the study, the researcher recommends the following for the management of the university:

- The university should not deviate from but rather strengthen its commitment to existing employee wellness programs. More awareness about job stress could take the form of seminars, workshop, roadshows and so forth.
- The researcher put forward a recommendation towards finding the best workload allocation model to ensure that employee work and life is well balanced.
- The university should, regularly conduct surveys to measure various organisational stressors and determine a proactive solution.
- Additional incentive packages may be considered at faculty and school levels to motivate employees.

The researcher recommends that female academics should not relent in speaking out, seeking support from the university, from peer groups and hospitals and utilize the university's existing wellness programs.

For future academic research, the researcher recommends a similar study to be conducted on the other four UKZN campuses. In addition, the researcher recommends a similar future research study to cover male academics and if possible, non-academic staff of all genders.

5.5 Limitations of the study

According to James and Murnan (2004), limitations of the study are those characteristics, designs or methodology that impacted or influenced the interpretation of the findings from one's research. Similarly, Infor Media services (2019) defines limitations as those influences which are beyond a researcher's control during the period of a research study. Limitations may be in the form of the method used to establish internal and external validity or unanticipated challenges that emerged during the course of the study.

In view of foregoing, this research was not an exception as there were a few limitations, which the researcher experienced. However, the researcher tried to counteract those limitations and forged ahead with the study. One of the limitations of this study was the issue of time during data collection. Respondents scheduled meetings at their own convenience and it took quite a lot of effort to retrieve completed questionnaires from them. The visits also added to the cost for the researcher because the study was self-funded. The researcher is also a married woman with two young children and a husband.

As such, the researcher found it very challenging to keep up with the academic and family requirements and was thus stressed.

5.6 Summary

This chapter provided a general conclusion on all that has been done in this study from the first to the last chapter. The overall finding of the study showed that most female academics on the UKZN PMB campus experience job stress due to the nature of their jobs and the tasks they have to do. The study also revealed that job stress then negatively impacts on their work, health, personal lives, as well as their motivation towards their jobs. This then leads to absenteeism and low productivity in the workplace. This implies that job stress could consequently have a negative impact on the employer as well, and not just the employee. However, the findings of the study showed that most of these female academics still love their jobs, and careers and have little or no intention to switch jobs or careers. This researcher provided recommendations for stakeholders of the university on strategies to manage stress, and also gave recommendations for female academics to manage their stress levels. The research also provided suggestion for future studies in the area of job stress and the limitations that the researcher experienced during the process of conducting this research.

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APPENDIX A

KREJCIE AND MORGAN SAMPLE SIZE TABLE

Table 3.1									
<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384
<i>Note: N is Population Size; S is Sample Size</i>					<i>Source: Krejcie & Morgan, 1970</i>				

APPENDIX B

QUESTIONNAIRE

SECTION A: SELF INTRODUCTION

	Yes	No
1.1 Married		

I have:	Yes	No
1.2 kids		
1.3 Subordinates		
1.4 coworkers		
1.5 superiors		

I have a good relationship with my:	Yes	No	Neutral
1.6 Subordinates			
1.7 Coworkers			
1.8 Superiors			

2. SECTION B: Implications of job stress on employee performance level

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
2.1	Because of the amount of job I have to do, I hardly finish in good time					
2.2	I have a lot to do and sometimes I fall ill and go on a sick leave					
2.3	I get demotivated because of the amount of job I have to do					
2.4	I wish to switch jobs because I feel am not performing maximally at my job and career due to the excessive work load					

3 SECTION C: Determinants of job stress for female academics at University of KwaZulu-Natal

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.1	My job often gives me little time to get things done					
3.2	My job often requires me to work very fast					
3.3	My job usually requires that I work very hard even on my spare times in order to meet deadlines					
3.4	With my job, there is always a lot to be done and I think the work load can be sometimes overwhelming					
3.5	I get sick due to the amount of work load I have to do at work					
3.6	Sometimes my co-workers, subordinates and superiors are not satisfactorily cooperative, helpful and understanding					
3.7	I think that I am often put under pressure because of my gender					

4 SECTION D: Extent to which job stress contribute to job dissatisfaction amongst female academics

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4.1	I would love to change a few things about my job					
4.2	I love my job but I would like to change a few things about my job description					
4.3	I think am no longer happy with this job because the work is too much for me					

5 SECTION E: Extent to which job stress affects the personal lives of female academics

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5.1	I find it difficult to perform my role as a wife/mum after the day's job					
5.2	I often have headaches, fatigues, lack of concentration, and sometimes I feel depressed after a hectic day's job					

APPENDIX C

The Pearson Correlational Analysis for Research Objective 2

Correlations		Time	Speed	Deadline	Workload	Workload as a stressor	Stressor	Workload/Gender
Time	Pearson Correlation	1	.382**	.451**	.438**	.533**	.299*	.311*
	Sig. (2-tailed)		0.004	0.001	0.001	0	0.028	0.022
	N	54	54	54	54	54	54	54
Speed	Pearson Correlation	.382**	1	0.264	0.203	0.241	0.248	-0.076
	Sig. (2-tailed)	0.004		0.054	0.14	0.079	0.07	0.583
	N	54	54	54	54	54	54	54
Deadline	Pearson Correlation	.451**	0.264	1	.342*	.360**	0.25	0.2
	Sig. (2-tailed)	0.001	0.054		0.011	0.007	0.069	0.146
	N	54	54	54	54	54	54	54
Workload	Pearson Correlation	.438**	0.203	.342*	1	.573**	0.219	0.198
	Sig. (2-tailed)	0.001	0.14	0.011		0	0.112	0.152
	N	54	54	54	54	54	54	54
Workload as a stressor	Pearson Correlation	.533**	0.241	.360**	.573**	1	.560**	.353**
	Sig. (2-tailed)	0	0.079	0.007	0		0	0.009
	N	54	54	54	54	54	54	54
Stressor	Pearson Correlation	.299*	0.248	0.25	0.219	.560**	1	.338*
	Sig. (2-tailed)	0.028	0.07	0.069	0.112		0	0.013
	N	54	54	54	54	54	54	54
Workload/Gender	Pearson Correlation	.311*	-0.076	0.2	0.198	.353**	.338*	1
	Sig. (2-tailed)	0.022	0.583	0.146	0.152	0.009	0.013	
	N	54	54	54	54	54	54	54
** Correlation is significant at the 0.01 level (2-tailed).								
* Correlation is significant at the 0.05 level (2-tailed).								

The Pearson Correlational Analysis for Research Objective 3

Correlations		Perception about job	Perception about job description	Job Satisfaction/Dissatisfaction
Job Perception	Pearson Correlation	1	.729**	.385**
	Sig. (2-tailed)		0	0.004
	N	54	54	54
Perception on Job Description	Pearson Correlation	.729**	1	.373**
	Sig. (2-tailed)	0		0.005
	N	54	54	54
Job Satisfaction/Dissatisfaction	Pearson Correlation	.385**	.373**	1
	Sig. (2-tailed)	0.004	0.005	
	N	54	54	54
** Correlation is significant at the 0.01 level (2-tailed).				

The Pearson Correlational Analysis for Research Objective 4

Correlations		Family Role	Well-being
Family Role	Pearson Correlation	1	.675**
	Sig. (2-tailed)		0
	N	54	54
Well-being	Pearson Correlation	.675**	1
	Sig. (2-tailed)	0	
	N	54	54
** Correlation is significant at the 0.01 level (2-tailed).			

APPENDIX D

DESCRIPTIVE STATISTICS TABLE

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Marital status	54	0	1	0.54	0.503
I have kids	54	0	1	0.63	0.487
I have subordinates	54	0	1	0.5	0.505
I have co-workers	54	0	1	0.89	0.317
I have superior	54	0	1	0.96	0.191
I have a good relationship with my subordinates	54	0	2	1.09	0.68
I have a good relationship with my co-workers	54	0	2	1.02	0.412
I have a good relationship with my superiors	54	0	2	1.02	0.363
Because of the amount of job I have to do, I hardly finish in good time	54	0	4	2.3	1.223
I have a lot to do and sometimes I fall ill and go on a sick leave	54	0	4	1.91	1.336
I get demotivated because of the amount of job I have to do	54	0	4	2.17	1.356
I wish to switch jobs because I feel am not performing maximally at my job and career due to the excessive work I load	54	0	4	1.09	1.12
My job often gives me little time to get things done	54	0	4	2.46	1.209
My job often requires me to work very fast	54	0	4	2.89	1.093
My job always require that I work very hard even on my spare times in order to meet the deadlines	54	0	4	2.94	1.156
With my job, there is always a lot to be done and I think the work load can be sometimes overwhelming	54	0	4	2.78	1.16
I get sick due to the amount of work load I have to do at work	54	0	4	1.69	1.226
Sometimes my co-workers, subordinates and superiors are not satisfactorily cooperative, helpful and understanding	54	0	4	1.98	1.173
I think I am often put under pressure because of my gender	54	0	4	1.98	1.38
I would love to change a few things about my job	54	0	4	2.78	1.239
I love my job but I would like to change a few things about job description	54	0	4	2.74	1.085
I think I am no longer happy with my job because the work is too much for me	54	0	3	1.02	1.037
I find it difficult to perform my role as a wife/mum after the day's job	54	0	4	2.22	1.341
I often have headaches, fatigues, lack of concentration, and sometimes I feel depressed after a hectic day's job	54	0	4	2.69	1.329

a. Test of Reliability

Scale: ALL VARIABLES

Case Processing Summary			
		N	%
Cases	Valid	54	100.0
	Excluded ^a	0	.0
	Total	54	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
0.907	16

APPENDIX E

ETHICAL CLEARANCE APPROVAL



4 September 2018

Mrs Chinonso Obidiegwu 216057858
School of Management, IT and Governance
Pietermaritzburg Campus

Dear Mrs Obidiegwu

Protocol Reference Number : HSS/1280/018M

Project title: The Impact of job stress on employee's performance: Evidence from female academics of University of KwaZulu-Natal

Full Approval – Expedited Application

In response to your application received 24 August 2018, the Humanities & Social Sciences Research Ethics Committee has considered the above-mentioned application and the protocol has been granted **FULL APPROVAL**.


Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully


Professor Shenuka Singh (Chair)
Humanities & Social Sciences Research Ethics Committee

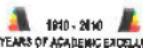
/pm

Cc Supervisor: Dr O.E Okeke-Uzodike
cc Academic Leader Research: Professor Isabel Martins
cc School Administrators: Ms Debbie Conynghame

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Fouring Campuses:  Edgewood  Hunzic College  Medical School  Pietermaritzburg  Westville