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UNIVERSITY OF CAPE COAST

JOB STRESS AND HUMAN RESOURCE DEVELOPMENT AT THE
COLLEGE OF DISTANCE EDUCATION, UNIVERSITY OF CAPE
COAST, GHANA.

BY

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature..... Date.....

Name.....

Supervisors' Declaration

We hereby declare that the preparation and presentation of this thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature..... Date.....

Name.....

Co-Supervisor's Signature..... Date.....

Name.....

ABSTRACT

This study aimed to examine the issue of job stress and its effect on some 'human components' of HRD (general health, wellbeing, capabilities and cognitive capacity). The study adopted a descriptive research design, utilizing both quantitative and qualitative methods. Target population comprised staff of the College of Distance Education, University of Cape Coast. The census approach was used to include all the 223 staff at the College in the study. Data collection was done through a survey questionnaire and a key informant interviews and presented using frequencies and percentages. Statistical tools employed include: A single sample t-test, Pearson's product moment coefficient, the Chi-Square test of independence, a simple linear regression and a Principal Component Analysis. The findings suggested that the major sources of job stress at CoDE were work demand, work-life conflict and work overload, and that, job stress inversely affect all the components of HRD. The study also found 60% of the staff to have moderate stress levels and 22% to have high stress levels. It was further discovered that CoDE's staff employ disengagement, active, acceptance coping and problem solving approaches in combating job stress. However, no formal stress management strategies were identified. The study recommended that CoDE's mode of operation should be enhanced with emerging technologies, the Regional Centers should be adequately resourced to handle some of the activities of the College, and there should be periodic health screening for all staff to identify those who may be at risk and to assist them.

KEY WORDS

Job Stress

Human Resource Development

Coping Mechanism

Demographic Factors

Organisational Factors

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DEDICATION

To my dear mother, Madam Yaa Bemah (a.k.a. Aunty Vivian) and my children, Elly Kweku Danso and Eunice Akua Dodua.

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LIST OF ACRONYMS

AC	Advisory Committee
CCE	Centre for Continuing Education
CIPD	Chartered Institute of Personnel and Development
CISPC	Crisis Intervention and Suicide Prevention Centre
CoDE	College of Distance Education
COL	Commonwealth of Learning
COR	Conservation of Resource
DBE	Diploma in Basic Education
EAP	Employee Assistance Programmes
EASNA	Employee Assistance Society of North America
HRD	Human Resource Development
HSE	Health and Safety Executives
ICT	Information and Communication Technology
ILO	International Labour Organisation
IRB	Institutional Review Board
JDC	Job Demand-Control
JD-R	Job Demand-Resource
JSI	Job Stress Inventory
KMO	Kaiser-Meyer-Olkin
MOE	Ministry of Education
MTTP	Modular Teacher Training Programme
OECD	Organisation for Economic Cooperation and Development
PCA	Principal Component Analysis
SRMIS	Students' Record and Management Information System

T&D	Training and Development
UCC	University of Cape Coast
UNESCO	United National Education, Scientific and Cultural Organisation
WHO	World Health Organisation

CHAPTER ONE

INTRODUCTION

Background to the study

Human resource development (HRD) has become an interesting topic in the research world due to its contribution to economic development, productivity, growth, creativity and innovation. Globally, human resource development has been considered as the bedrock of economic and societal development. This realization has compelled many governments to invest in human resources to ensure sustained growth. HRD is about enhancing the health, knowledge, skills, capabilities and wellbeing of people, which enable them to be productive and efficient. Developing the education, knowledge, health, skills and abilities of people enhances economic growth through the production and provision of marketable goods and services. Human resource development also affects the creation of surpluses needed to improve standards of living through increased incomes, more equitable distribution of income, increased employment opportunities, improvement in infrastructure and better social benefits (Harbison, 1973). Human resource development also has the potential to reduce social stratification and inequalities.

Human Resource Development has become one of the most important issues shaping the development of countries around the world in recent years. The importance of human resource development in the process of economic growth and national development has been outlined theoretically by various researchers. According to Harbison (1973), human resource constitutes the ultimate basis for the wealth of nations. Capital and natural resources are passive factors of productions, while human beings are active agents who

accumulate capital, exploit natural resources, build social, economic and political organisations, and carry forward national development. Clearly, a country which is unable to develop the health, capabilities, skills and knowledge of its people and utilizes them effectively in the national economy will be unable to develop anything else (Sharif, Ahmed & Abdullah, 2013).

Economic development depends among others on the levels of industrial activities which is also dependent on the efficiency and productivity of human resources. Khan, Khan and Khalid (2012) suggest that the success or failure of any development project depends on the quality of the human resources. The goals of human resource development encompass national development and growth, organisational sustainability, competitiveness and individual or personal growth and development. Human beings have some productive capabilities and skills that can be tapped into producing goods and services for national development (Teixeira, 2002). From the human capital theory point of view, these skills and capabilities are considered as assets because they influence organisational outcomes as well as the opportunity for people to earn higher wages, greater economic security and increase employment prospects (Armstrong, 2010). It is worthy to note that people are productive assets, and anything that diminishes the stock of this asset will end up diminishing organisations expected realisable values.

Organisations believe that their success and sustainability depends on the effectiveness, skills and the enthusiasm of human resources (Hyland, DiMiller & Becker, 2005; Marimuthu, Arokiasamy, & Ismail, 2009). Like any other organisation, the quality of human resource in tertiary institution is crucial for effective performance of duties. Tertiary institutions are major

drivers of economic competitiveness in an increasingly knowledge-driven global economy. Tertiary institutions contribute to both social and economic development through the development of human capital, building of knowledge-bases through knowledge development and research, dissemination of knowledge and maintenance of knowledge (Peretomode & Chukwuma, 2013). Government and civil society have some expectations in tertiary institutions to train and educate the general population. The growth in demand for higher education coupled with changing skills and technology demands that human resources are developed (in the tertiary institutions) so that they will be well equipped to meet their responsibilities (Odionye, 2014).

In order to ensure quality of human resources, varied efforts in the form of training and education and career development to improve the effectiveness of the individual, group and institutions have been put in place. Human Resource Development as suggested by Tariq and Padda (2014) covers education, nutrition and health and skill development. In spite of the efforts made to improve the quality of these resources, institutions are faced with some challenges. These challenges, according to Tabibi, Khan, Nasiripour, Vahdat & Hessam (2011) include bureaucratic barriers, discontinuity, ineffectiveness and lack of systematic approaches. Other researchers identified the challenges of human resource development to be inadequate health promotion, health care facilities and nutrition, (Tariq & Padda, 2014). D'Souza, Upandhyaya & Kumar (2000), Rossi, Perrew and Sauter (2006) and Singh (2008) additionally, have posited that job stress is a world-wide challenge for human resource development in the twenty-first century.

Though job stress has been identified as a major challenge to human resource development in the twenty-first century, Hargrove, Becker and Hargrove (2015) believe that when there is some optimal amount of job stress, the development of human resource can be improved. Job stress enhances creativity and innovation by compelling people to think and put in maximum effort when learning. Stress is a cognitive enhancer and a motivator, which improves some aspects of intelligence and mental prowess which helps in professional capacities and development (Hargrove et al., 2015). These authors suggest that some levels of job stress is positive to human resource development as it boosts commitment, increases engagement and improves general wellbeing of people.

Nonetheless, Luthans (2010) confirms that unceasingly high levels of job stress could affect people's health and impede their development. Long term job stress may lead to psychological problems which will eventually result in psychiatric disorders resulting in long absence from work. People under stress find it difficult to maintain a healthy balance between work and non-work situations (Cox, Griffiths, Barlow, Randall, Thomson & Rial-Gonzalez, 2000). Job stress may affect the immune system, impairing people's ability to learn and this can affect their development. Studies, such as Dewe & Cooper (2012), Nayak (2008) and Dewe, Cox, & Leiter, (2000) have revealed that when stressful situations go unmanaged, the body is kept in a constant state of stimulation which results in physiological and psychological disorders and illness. Tennant (2001) maintains that chronic job stress results in physical, emotional, mental and behavioural changes which may produce tiredness, slow reactions, difficulty in decision making, forgetfulness and

anxiety, depression, heart attacks, stroke, substance abuse, alcohol intake, hypertension and immune system disturbances that increase susceptibility to infections, thus hindering people's personal development.

Using the Transactional theory, Onasoga, Ogbemor, and Ojo (2013), Robbins (2010), and Cope (2003), claim that job stress is perceptual and that individual may experience job stress depending on their demographic characteristics. Nayak (2008) posits that individual demographic variable like age, gender, educational attainment, length of service, marital status, ethnicity and family type have significant impact on job stress. Other researchers like Kula (2011), Luthans (2010) and Butt (2009) also believe that organisational variables, such as work overload, long hours of work, non cooperative attitude of colleagues, work-life conflicts, lack of opportunity for advancement and ambiguous demands have the greatest potential of causing job related stress. From the Person-Environment Fit theory, job stress emanates as a result of an imbalance between job requirements and people's coping abilities.

Job stress is believed to be prevalent among university staff (Gillespie, Walsh, Winefield, Dua & Stough, 2010; Archibong, Bassey, & Effiom, 2010). Mate (2014) for instance believes that increased students intake without the corresponding intake of staff can intensify the work load on academic staff which can also result in job related stress. Apart from this, Mate emphasises that lack of funding for Research and Publications which could lead to the promotion of academic staff, career progression through professional development by acquiring terminal degrees can put pressures on academic staff which culminate into job stress. From the point of view of Owusu and Tawiah (2014), job stress is eminent among the administrative staff of public

universities due to the nature of their job, including attending meetings, monitoring, research and publication and extension services.

Job stress is not only prevalent among teaching and administrative staff at the mainstream university but also among staff of distance education. The concept of Distance Education is not new in Ghana. It used to be known as Workers' College, where a number of workers and professionals used to upgrade themselves academically. Although, the patronage fell drastically in the 1970s due to the unfavourable economic conditions at the time which made it difficult for workers to pay for tuition, Distance Education resurfaced in the 1980s with the need for manpower development in Ghana. As a result, the Modular Teacher Training Programme (MTTP) was introduced in 1982. This program was intended to upgrade untrained teachers academically and professionally through distance education.

The increasing demand for higher education in Ghana over the last two decades and the inability of the conventional university system to admit large numbers due to inadequate physical facilities, called for strategic initiatives to providing university education to all who qualify. Consequently, the Ministry of Education (MOE) in collaboration with the Commonwealth of Learning (COL) and the United National Education, Scientific and Cultural Organisation (UNESCO) undertook a number of surveys to assess the Distance Education needs in Ghanaian universities (Mensah & Owusu-Mensah, 2002). By 1996, four public universities in Ghana had been given the mandate to start Distance Education Programmes. These institutions were University of Cape Coast, University of Ghana, Kwame Nkrumah University of Science and Technology and the University of Education, Winneba.

Distance Education was well established in the University of Cape Coast in 1997 as the Centre for Continuing Education, (CCE) with an initial student population of 750 (Brown & Koomson, 2009). In August, 2014 the Centre for Continuing Education was upgraded to a college status, changing its name to the College of Distance Education (CoDE).

The workload and the mode of operations associated with the work of distance education staff makes them very susceptible to job related stress as evidenced by the Job Demand-Control Theory. Traditionally, the mode of operations with Distance Education has been through the use of multimedia and ICT which create an interactive learning atmosphere to facilitate learning to students who are not physically present (Najafi, Farajollahi, Naruzzadeh & Sarmadi, 2012). However, due to inadequate technological advancement in most of the regions in Ghana, and coupled with the greater number of students enrolled on Distance Education Programmes at the College of Distance Education, University of Cape Coast, it became necessary for the College to open a number of study centres across the nation which serve as study points for students. By the 2015/2016 academic year, the College of Distance Education had opened seventy-eight (78) study centres across the regions in Ghana with student population of 42,000 offering varied programmes (SRMIS, 2015) and a full-time staff population of only 223. Due to this expansion, workers at the college have had to struggle with the increasing demands associated with their jobs in order to meet the demands of stakeholders.

Statement of the problem

Human resource development has been a subject of study by various scholars over the last decade. Swanson (2001) asserts that an organisational perspective appears to dominate discussions on Human Resource Development. Most studies have looked at organisational learning, training and development, career management and leadership development as major components of human resource development. Garavan et al, (2014) noted that the ‘human being’ aspect of the human resource development is relatively under researched. Lee (2014) expresses the need to understand the individual perspective of HRD and the factors likely to affect the individual’s responses and performance within their organisations. This study therefore sought to look at the ‘human or individual’ aspect of human resource development, by examining the effect of job stress on some components of human resource development (general health, capabilities, wellbeing and cognitive capacity of staff) at the College of Distance Education, University of Cape Coast.

The International Labour Organisation (ILO) Convention, which was adapted in 1919 provided for adequate resting periods for workers. The framework established that workers are to work for eight hours in a day and forty hours in a week. The mode of operations of distance education at the University of Cape Coast require workers to work more than forty hours in a week as stipulated by the ILO Convention. Workers at the College of Distance Education travel extensively to study centres on weekends to monitor, assess and supervise examinations. In some cases, workers travel for over 500 kilometres, spending more than eight hours on a journey. The need for workers to find their own accommodation and meals at the study centres add

up to stress. Increase student intake (from 36,000 to 42,000 (SRMIS, 2015)), introduction of new programmes (addition of Diploma in Maths and Sciences and Diploma in Hospitality Management, in 2014/2015) and expansion of study centres (from 67 to 78 centres, in 2015/2016) result in a lot of paper work, documentation and increased workload on workers. The problem of students with incomplete results and records as well as delay in the release of results and declining performance of students has further increased the stress levels of workers. At the study centres, workers perform duties such as handling students' complaints, counselling, directing and providing other support services to enhance teaching and learning. These work schedules place much workload on workers at the College which result in stress and chronic ill health, thereby affecting their development as suggested by the Job-Demand-Control Theory.

Despite the widespread acknowledgement of the detrimental effect of job stress on human resource development, studies on stress have mostly been conducted in areas of psychology and medicine with little attention on the effects of job stress on the development of human resource. Though job stress has been named as a constraint to human resources development, the amount of attention given by existing literature on job stress in relation to human resource development is relatively small (Singh, 2008). Those studies that have looked at the effects of job stress on human health and development have concentrated on health workers and banking institutions (Agyeman, Nyanyofia & Gyamfi, 2014; Dapaah, 2014; Aseidu-Appiah, Dufie-Marfo & Frempong, 2013; Teye, 2011). There appears to be limited studies on job stress and human resource development in tertiary institutions. This suggests that there is

limited literature on job related stress and human resource development in tertiary institutions.

Moreover, most job stress studies have utilised a mono-dimensional approach, either employing qualitative or quantitative method and have basically employed an ordinal scale measurement (likert scale) in measuring the study variables. This study therefore utilised a multi-dimensional approach to the study of the problem and employed an interval scale measurement, allowing for a more rigorous statistical operations. In other words, the uniqueness of this study stems from two angles, of filling an empirical gap as well as methodological gap.

Objectives of the Study

The general objective of this study was to examine the issue of job stress and its effect on human resource development at the College of Distance Education (CoDE), University of Cape Coast. Specifically, the study:

1. Explored the sources of job stress at CoDE.
2. Analysed the perception of work environment and levels of job stress among CoDE staff in relation to their demographic characteristics.
3. Analysed the effect of job stress on some components of HRD (health, wellbeing, capabilities and cognitive capacity).
4. Investigated the job stress coping strategies of CoDE staff.

Research Questions

In order to address these objectives, the following research questions were developed:

1. What are the sources of job stress at CoDE?

2. What are the perceptions of the work environment and the levels of job stress in relation to staff's demographic characteristics?
3. What are the effect of job stress on general health, wellbeing, capabilities and cognitive capacity of staff?
4. How do the College of Distance Education's staff cope with job stress?

Research Hypothesis

The study tested the following hypothesis

H0₁: High job demands have significant associate with high job stress levels.

H0₂: High job stress levels significantly affect staffs' health, capabilities, cognitive capacity and wellbeing.

Scope of the study

There have been many debates by various researchers as to the focus of human resource development. In most of these debates, scholars recognise that human resource development focuses on three core areas: the human being, organisational development and national development. This study focused on the 'human being' element of human resource development thus placing much emphasis on the individual's development rather than organisational development and national development. The study centred on only full time staff at the College of Distance Education, University of Cape Coast, including all full time staff at the Regional Centres. The selection of this scope was informed by the significant contribution Distance Education is making towards the development of human resources in Ghana and the uniqueness of CoDE's mode of operations. The study only sought to examine the effects of job stress on some components of human resource development (staff's general health, wellbeing, capabilities and cognitive capacity) though

empirical studies have identified a lot more aspects of human resource development.

Significance of the Study

The development of human resource at the College of Distance Education has a lot of implications on the quality of students produced, and the quality of students produced also determine the effectiveness and efficiency of product and service delivery in the national economy. Therefore it was important to know how job stress affects human resources in order to mitigate it to ensure quality of staff and thus quality of students.

It is also expected that the findings of this study will help management to discover the levels of job stress on the staff of the college of distance education, and throw light on the sources of job stress, how individual cope with job stress and the detrimental effects of job stress at the college. The findings of this study can provide management with broader and more comprehensive understanding of the extent to which stressful working conditions represent a threat to human resource development and can help them formulate and implement appropriate stress management strategies to address stress related problems to increase quality of life at the College of Distance Education. It is also envisaged that this study will add up to literature for future researchers on the subject matter.

Limitation of the Study

This study concentrated on only full time staff at the College of Distance Education, University of Cape Coast, consequently, the findings cannot be objectively generalised. An objective generalization will require a thorough study with a larger sample size to cover distance education staff of all public

universities in Ghana. Additionally, studies have identified varied components of human resource development. Nonetheless, this current study only operationalizes human resource development in terms of general health, wellbeing, capabilities and cognitive capacity (Gibb, 2007). Therefore, the conclusions of this study are limited to the uniqueness of staff at the College of Distance Education, University of Cape Coast. Another limitation pertained to data collection, at the time of data collection, a number of senior members and senior staff had gone on study leave and transfer, therefore the number of people available to respond to the instrument had reduced. Many junior staff also voluntarily pulled out of the study, thus decreasing the representation of junior staff in the study. Further, body gestures and intonations of voices were observed during the face-to-face interviews, this however, did not form part of the data analysis because, such observations were not part of the study methodology.

Operational Definition of Terms

After an extensive literature review, the following operational definitions as used in the text were originated.

Human Resource Development: is defined as the development of human beings into productive resources which are useful for the production of goods and services for societal development (Garavan, McGuire & O'Donnell, 2004).

Health: the state of complete physical, mental and social wellbeing of people (Tariq & Ihtsham, 2014).

Wellbeing: the state of being hopeful, comfortable and happy.

Capabilities: the skills, experiences, aptitude and abilities needed in order to achieve a standardised job performance (Gibb, 2007).

Cognitive capacity: was defined in terms of brain-based skills which deal more with the ability to pay attention, remember, make logical decisions and solve problems, and the proper interactions with other human beings (Armstrong, 2010).

Demographic Variables: These are individual personal characteristics.

Organisational Factors: These are factors within the work environment that induce job stress.

Job Stress: was defined as conditions where staff experience emotional strain as a result of a very demanding work environment.

Stress Management Strategies: These are formal institutional programmes that do not only deal with stress as it occurs but also build employee resilience and prevent stress.

Coping Mechanisms: These were defined as individual defence mechanisms aimed at resolving job stress.

Work demand: this is where people have so many job responsibilities than they can handle.

Work overload: situations where people perform too many tasks within a particular time.

Long hours of work: situations where people work for more than eight hours in a day and forty hours in a week.

Work-life conflict: situations where people spend so much time on the job, such that it leaves them little or no time to attend to family, social or personal needs.

Role ambiguity: is the condition where people are unclear about their assigned duties and responsibilities.

Verbal abuse: is any form of communication via of behaviour, tone or words that are intended to humiliate, degrade or disrespect an individual.

Lack of career development: situations where there are limited or no opportunity for people to further their career prospects.

Unsafe working conditions: the work environment that pose some form of threat to the health and wellbeing of workers.

Physical relaxation: the state of being free from any physical activity or responsibility.

Routine exercise: mindfully or consciously taking any form of aerobics, walking, jogging, swimming, dancing or jumping rope for at least 30mins in a day.

Organisation of the Study

The thesis is organised in eight chapters. The First Chapter provides an introductory aspect of the thesis. It covers the study background, objectives of the study and the research questions. Other aspects of the first chapter include the scope and limitation of the study, the study significance and operational definition of terms. Chapter Two focuses on a review of relevant literature which discusses the theoretical and conceptual issues underpinning this study as well as empirical studies relating to this study.

The Third Chapter deals with methodological issues in the study. It includes a brief discussion of the philosophical assumptions, research design, the target population and a brief description of the study institution, data collection and analysis methods, issues of validity and reliability and ethical issues. Chapter Four presents the state and sources of job stress at the College of Distance Education, University of Cape Coast. Chapter Five examines the

work environment of the college and the levels of individual's job stress in relation to staff demographic characteristics. Chapter Six analyses the effect of job stress on the components of human resource development. The Seventh Chapter assesses the job stress coping mechanism employed by staff of the college of distance education in combating job stress. The Final Chapter summarises the entire study, concludes and makes recommendations based on the findings of the study.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews the theoretical considerations and the challenges researchers encounter in an attempt to theorizing human resource development. The chapter further traces the development of stress research and looks at the various ways in which job stress have been conceptualised. Also discussed in the chapter is empirical literature on job stress and human resource development. Finally, the section presents the conceptual framework designed for the study.

Theoretical considerations of the study

The process of theorizing human resource development (HRD) by academics, researchers and practitioners according to McGoldrick, Stewart and Watson (2001) is proving to be frustrating, elusive and confusing. Sambrook (2003) noted that theorizing HRD is frustrated by the apparent lack of boundaries and parameters; elusiveness is created through the lack of depth of empirical evidence of some conceptual aspects of HRD. Confusion arises over the philosophy, purpose and language of HRD. This is further complicated by the epistemological and ontological perspectives of individual stakeholders and commentators in the HRD arena (Woodall, Lee & Steward, 2004). This suggests that HRD has not established a distinctive conceptual and theoretical identity (Lee, 2003). Swanson (2001) observed that the task of analysing the meaning of HRD is more difficult because there have been a lot of philosophical debates concerning the nature of HRD.

Scholars like Grieves (2003) believes that HRD should centre on learning and performance of organisations, Hatcher and Lee (2003) suggests that HRD's focus should be on the wellbeing of individuals, economic benefits, ethics in HRD and social benefits. Whiles Swanson, (2001) posits that HRD should centre on human beings: health and wellbeing, capabilities, cognitive capacity and performance of the individual. Armstrong (2010) however, argues that HRD should centre on employee training and development. Nonetheless, Elliott and Turnbull (2005) believe that HRD has gone beyond the traditional perspective of training and development. Swanson and Holton (2008) noted that all these debates and inconsistencies in theorising HRD have arisen because HRD as an academic field of study is an emerging discipline, relatively young and is still growing. Moreover, the multi-disciplinary nature of human resource development makes it difficult to define a distinct theory for the discipline.

The struggle for adopting a theoretical stand for human resource development has led to the belief that the discipline relies on three core theories in order to understand, explain and carry out its processes and roles. These theories as described by Swanson (2001) are psychological theories, economic theories and sociological theories. Swanson (2001) noted that psychological theory captures the core human aspects of developing human resources as well as the socio-technical interplay of humans and systems. Economic theory takes into account the core issues of the efficient and effective utilization of resources to meet productive goals in a competitive environment. One of the dominant theoretical perspectives in sociology is the systems theory, which also has its applicability in human resource

development. Swanson (2001) argues that the systems theory captures the complex and dynamic interactions of a range of organisational characteristics including environments, work processes, group and individual variable. Garavan et al, (2004) caution that the systems theory should not be viewed as the primary foundation for HRD. They acknowledge that it has the potential to provide valuable insights into how HRD operates in organisations but should not be the dominant frame of thinking.

Theories in this study are selected based on theoretical, contextual and empirical grounds. Theoretically, the Human Capital Theory (economic theory) has been regarded as the most accurate measure of assessing the importance of human resources towards national development and organisational sustainability. Schultz (1961) used the theory to demonstrate the need to develop human resources because of its contribution to national development. Similarly, the Transactional Theory of job stress is considered an appropriate means of assessing how stress processes occur and what conditions need to be taken into consideration when identifying environmental stressors and how they are predicted (Whitehead, 2001).

Contextually, there has been a recommendation that studies on job stress should be situated and underpinned by theories that are specific to the study context (Tennant, 2001). Consequently, this study selected the Job-Demand-Control theory which reflects the working conditions of staff at the College of Distance Education, University of Cape Coast. Linking the Person-Environment Fit theory to this study is conceptually appropriate, given that job stressors can also emanate from a mismatch between the individual employees' personal expectations and what the job actually offers in the work

environment (Ahmad, 2010). Empirical findings from stress literature suggest that using a combination of these theories in the current study can help identify how organisational stressors can constrain human resource development.

Human Capital Theory

The major theory that underpins this study is the human capital theory, because it has been regarded as the most accurate measure of assessing the importance of human resources towards national development and organisational sustainability. Human capital theory is generated from economic perspective. To the economist, capital consists of factors of production used for the production of goods and services that are not directly consumed in the production process (Dae-Bong, 2009). The neoclassical economist believes that human being is responsible to be in charge of all economic activities, including production, consumptions and transactions. From the foregoing analysis, it can be stated that human capital is a form of productive capacities inherent in human that generate some added values to production. By the 1950s, neoclassical economist realized that human capital investment was basic to raise individual's earnings, compared to other factors of production like land, machines and financial capital (Beach, 2009).

The concept of human capital was fully developed in the 1960s when Schultz (1961) and Becker (1993) championed most of their studies in measuring the impact of educational expenditure in the form of investment on earnings and economic growth. Becker later used the concept to analyse the rate of returns to investment in education and training (Teixeira, 2002). Human capital has been conceptualised as a combination of factors such as

education, experience, training, intelligence, energy, work habit, trustworthiness and initiative that affect the value of a worker's marginal productivity (Frank & Bemanke, 2007). Other researchers have defined human capital as the knowledge, skills, competencies and attributes in people that facilitate the creation of personal, social and economic wellbeing with social perceptiveness (Rodriguez & Loomis, 2007).

Marimuthu et al. (2009) defined human capital as a key element in improving a firm's assets and employees in order to increase a firm's productivity as well as to sustain competitive advantage. Human capital involves the process that relate to training, education and other professional initiatives in order to increase the levels of knowledge, skills, abilities, values and social assets of an employee which will lead to employees' satisfaction, performance and ultimately organisational performance. The Organisation for Economic Co-Operation and Development (OECD, 2001) suggests that human capital is the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic wellbeing.

The original human capital framework developed by Becker (1964) views human capital as education, knowledge, skills, health and values as assets that need investment over a period of time just as physical and financial capital. The theory has been used to examine the influence of human capital on productivity and income at both the micro and macroeconomic levels. At the microeconomic level, human capital theory maintains that good health, knowledge and skills raise labour productivity, which in turn, influences economic activity and societal well-being. Many researchers have followed

the human capital dimensions of education and training and have neglected health as a component of the framework. Bloom and Canning (2003) posit that health is an important element of an individual's welfare and standard of living. Sickness, ill health, and risk of death are central issues in shaping human capabilities and behaviour. There is thus a strong argument for investment in the health of people and not only in education. Hokayem (2010) argues that if health determines how much an individual works and how much an individual's work determines the skills acquired on the job, then variations in health will influence human capital accumulation and consequently, future income and organisational performance.

The relative neglect of health as a component in the human capital framework compelled Grossman (1972) to come up with a human capital model of health which maintains that good health, knowledge and skills raise labour productivity, which in turn influences economic activity and societal wellbeing. Grossman's model of health capital and his idea of investment in health remain the most important theoretical contribution to health economics and human resource development (Hokayem, 2010). The model illustrates the importance of health as a component of a firm's asset in developing human resources for organisational productivity and national development.

The central tenet of the human capital theory of health is that increased health can directly increase general output through enhanced physical energy and mental discernment, reduced sickness and increased longevity resulting in a longer career. Hoyt (2010) posits that health is an input to providing other forms of human capital. Being unhealthy depresses the ability to work productively and ability to invest in human capital. Improvement in health

increases the productivity of human capital. Therefore, Hokayem (2010) suggests that organisational level interventions can be an effective means of promoting healthy lifestyle, reducing stress, improving employee wellbeing and reducing sickness related absence.

Gardner and Gardner (2012) affirm that preventive and therapeutic health care services can improve employees' productivity and increase their quality of life. They maintain that if these services can increase the stock of human capital, then investment in preventing work related stress and curing diseases and disabilities can be an incentive for human resource development and firm's higher productivity. Tariq and Ihtsham (2014) aver that firm productivity and economic growth is positively affected by human health. They emphasise that a healthy person is physically and mentally more enthusiastic and dynamic, lives long, learns more, works more, produces more and earns higher wages which directly lead to increase in productivity. While unhealthy person is mentally and physically apathetic, lives short, works less, learns less, produces less, which is directly linked with decreased productivity.

Scholars like Luthans (2010), Butt (2009) and Whitehead (2001) agree that, individuals respond to environmental stimuli in different ways, depending on their specific characteristics and perceptions. Consequently, there is the need for a discussion of the transactional theory to assist in the understanding of how individuals perceive their environment and how differently they appraise environmental situations.

The Transactional Theory of Stress

One of the earliest theories to influence stress research is the Transactional Theory of Stress, developed by Lazarus & Folkman in 1984. The basic assumption of this model is that, stress emanate as a result of a transaction or interaction between a person and the environment which threatens peoples' wellbeing and their development. This transaction, according to Lazarus and Folkman (1984) depends on the impact of the external stressors. The environment acts on the person, who feels stressed, appraises the situation and responds with a coping activity, which in turn may change the environment and how it acts in consequences again on the person. Dewe et al. (2010) believe that these exchanges represent a process – oriented approach which reflects the changing person-environment relationship and provides an insight into the nature of stress process itself. Lazarus (2001) identifies that environmental appraisal involves two component processes; primary and secondary appraisal.

Lazarus (2000) suggests that environmental situations can present stressors. Stressors are the demands made by the internal or external environment, which affect the physical and psychological wellbeing and the development of individuals which require an action to restore the balance. When a person is confronted with a stressor, he or she may evaluate the potential threat and this brings about primary appraisal. Smith and Kirby (2009) posit that primary appraisal is a person's judgement about the significance of an event as being irrelevant, benign-positive or stressful. If the situation is identified as stressful, then the individual may assess if the stressful situation poses threat, causes harm or loss or the situation is a

challenging one. Lazarus thus categorised primary appraisal into threat, challenge or harm/loss.

Folkman (2008) contends that threat occurs when a person observes danger in the environment. Threat is associated with negative emotions such as anxiety and fear which affect psychological wellbeing of individuals. Challenges on the other hand, are situations that pose as opportunities for a person to prove himself or herself, anticipate gains, mastery or personal growth. Challenges bring exciting and pleasant experiences which makes individuals hopeful, eager and confident to meet demands. Harm appraisals are accompanied by negative emotions such as sadness or anger. Harm or loss are physical injuries or pain or attack on one's self-image or social standing. Individuals experiencing harm or loss feel overwhelmed and helpless and thus abandon the situation or quit from the environment.

Another aspect of appraisal that Lazarus discusses is the secondary appraisal. Secondary appraisal involves people's evaluation of their abilities and resources and the coping options available to overcome threats, challenges or harm. These resources may be from internal or external sources. Folkman (2008) argues that internal resources are personal strength, determination, skills, knowledge and confidence, while external resources may be time available, support from colleagues and supervisors and money. Lazarus (2001) identifies that secondary appraisal leads to reappraisal, as individuals try to identify the type of resources and coping options available to meet the demands. When a person perceives there are more coping options than needed, stress does not occur. However, where a person observes inadequate resources and coping options, stress experiences are triggered.

Folkman and Moskowitz (2004) identify that the Transactional theory takes into consideration cognitive approaches to stress. The theory is described as dynamic and caters for individual differences in stress appraisal as different persons may appraise stress differently. The theory has the strength of identifying alternative methods of managing psychological responses to stress. However, Folkman (1984) observes that the transactional theory lacks empirical evidence and that primary and secondary appraisals are interdependent. He further argues that the theory ignores the determinants of stress. Despite these limitations, the Transactional Theory have set the pace for the development of the Person-Environment Fit and the Job-demand-control theories in stress literature.

Figure 1 illustrates the Transactional Model of Stress.

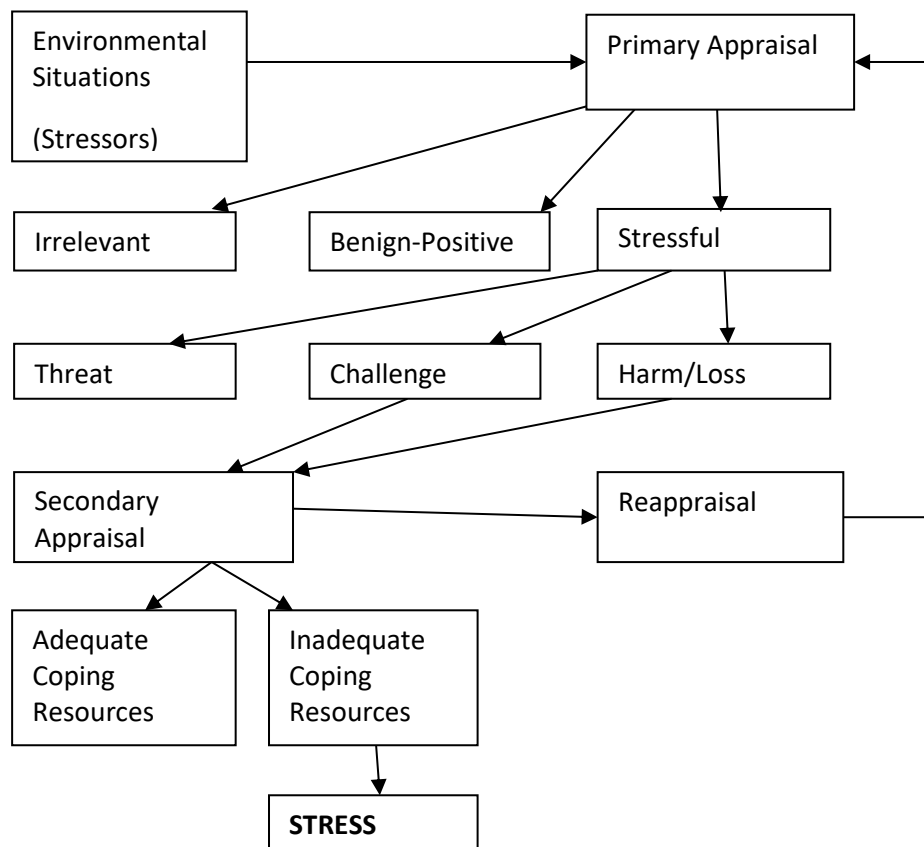


Figure 1: Transactional Model of Stress
Source: Adapted from Lazarus (2001).

The Job-Demand Control Theory

Another theory which has influenced job stress literature is the Job Demand Control (JDC) Theory, because of its practicality and testability. Different types of jobs bring about different levels of job stress as a result of certain environmental factors, which may include the amount of decision-making authority an individual has and the extent to which the individual may exercise their skills on performing a job (Fernet, Guay, & Senécal, 2004). Karasek (1979) calls these environmental factors as job demands, and job control. This concept led to the development of the Job-Demand-Control theory which sought to explain the relationship between job demands, job control, negative health and psychological outcomes that may have negative impacts on human resource development.

The theory assumes that job stress is influenced by how demanding a person's job is and how much control the person has over their own responsibilities. Jones and Bright (2004) contend that job demand is the psychological stressors in the work environment. These may include time pressures, conflicting demands, work overload, degree of concentration and job insecurity. Bakker and Demerouti (2007) explained job demand as the physical, social and organisational aspects of the job that necessitate continuous physical and mental effort and therefore are associated with certain physiological and psychological costs that can negatively affect human resource development. The JDC theory suggests that when job demands are high, extra effort must be applied to accomplish the work goals and to avoid decreasing performance. This obviously generates physical and psychological costs which include fatigue and irritability.

Job control on the other hand is described by Hussain and Khalid (2011) as decision latitude which refers to the employees' control over their tasks and how those tasks are performed. It consists of both skill discretion and decision authority. Skill discretion is the extent to which job involves a variety of tasks, low level of repetitiveness, instances for creativity and opportunity to learn new things and develop special abilities. Decision latitude and skill discretion enhance human resource development since employees are able to learn new ways of doing things which make them to be creative. Bakker et al. (2010) contend that decision authority describes both the employees' ability to make decisions about their own jobs and the ability to influence their own work team and company policies. This concept results in four kinds of jobs which are in Figure 2.

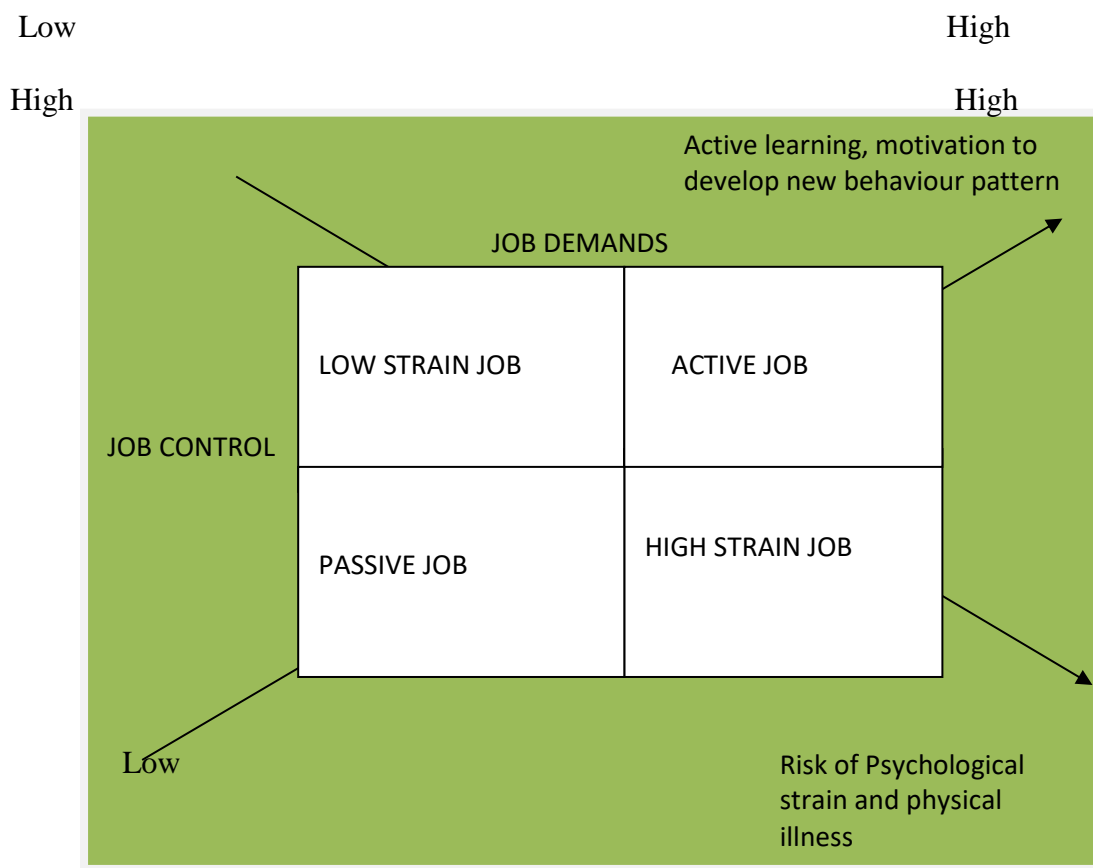


Figure 2: Karasek's original Job Demand Control Model
Source: Hussain and Khalid (2011).

From Figure 2, high strain jobs represent tasks that have high levels of job demands with low levels of job control. This type of job is believed to trigger work related stress and has negative effects on human resource development. Besen (2013) suggests that the physiological stress response is activated in high strain jobs as a result of the employees' inability to cope with the high level of job demands due to lack of control over their job. This condition is normally associated with anxiety, high blood pressure and other illnesses.

The active job quadrant refers to jobs with high levels of job demand and control. This type of job is believed to result in the most positive outcomes, which include high levels of job satisfaction since such jobs increase employees' sense of competence and personal growth and development (Bakker, Van-Veldhoven, & Xanthopoulou, 2010). The passive job is characterised by low levels of job demands and job control. This type of job does not lead to high levels of job stress as in the case of high strain jobs. Instead, it is assumed to lead to negative work related outcomes such as job dissatisfaction, boredom at work, lack of motivation and a decline in work related skills which negatively impact on employee development. The final group of job is known as the low strain job which has low levels of job demands and high levels of job control. This type of job is not expected to generate any job strain or illness (Hussain & Khalid, 2011).

The original form of the JDC theory proposed two processes for the development of work related stress and burnout. Firstly, prolonged excessive job demands from which employees do not adequately recover may lead to continuous over exhaustion which may result in stress and burnout that may

affect their development negatively (Crawford, LePine & Rich, 2010). Secondly, a lack of control or resources required to meet job demands may lead to withdrawal behaviour. Thus when the job demands exceed the employees' ability to control, the employees may withdraw, reduce their motivation or disengage themselves from the job. Demerouti et al. (2010) suggest that those elements of withdrawal act as a strategy to further prevent exhaustion. Job control is not the only resource available for coping with the job demands, social support from peers and supervisors can play an important role. The theory was later expanded to include social support as research proved that support from colleagues and supervisor could help minimise high demand situations which can enhance human resource development (Mark & Smith, 2011).

In spite of the addition of the concept of social support, Bakker et al. (2010) maintain that the theory is too simplistic and lacks conceptual support and applicability and that it applies to all employees universally. The JDC theory stipulates that all employees with high job demand and control exhibit similar outcomes regardless of their personal traits like confidence in their ability to successfully complete a task. Thus, the theory does not account for individual differences and does not explain why the same environmental demand and control in two individuals may result in different behavioural outcomes. Consequently, Crawford et al. (2010) argue that the JDC theory ignores a number of key features of the job, like the type of job, occupational characteristics, the type of industry and other important individual characteristics like locus of control, self-efficacy and the age of the employee that may have significant impact on employees' job outcome.

Cox et al. (2000) suggest that the definition of demand as based mainly on workload and no other types of demands makes the JDC theory questionable, and that the conceptualisation of control is rather a narrow view of a multi-dimensional construct. The theory also proposes that high control is always a desirable state and a positive moderator of negative demands. However, it could be argued that some individuals may not see job control as desirable and may even consider control as stressor in itself (Mark & Smith, 2008). The inability of the JDC theory to capture the complexity of the work environment led to the revision of the theory to include work engagement (Schaufeli & Bakker 2004).

This revised edition became the Job Demand Resource model (JD-R). The central principle of the JD-R model is that a number of different combinations of specific job demands and specific job resources determine employee well-being and development. These different combinations are categorised into job demand and job resource, thus making the model applicable to various occupational settings (Bakker & Demerouti, 2007). The model assumes that work engagement and job stress play a mediating role between job demands and health problems, and job resources and human resource development.

Schaufeli and Bakker (2004) explain that work engagement is a positive fulfilling work related state of mind that is associated with high levels of involvement, mental resilience and dedication employees exhibit at the workplace. Bakker et al. (2010) define job resources as the physical, social and organisational aspects of the job that may assist in achieving work objective or assist in reducing job demands and the associated physiological

and psychological costs. These include those factors that encourage human resource development. Examples of job resources, according to Bakker et al. (2010), are feedback, job control and social support. Thus the revised edition of the JDC theory did not only explain the negative psychological state (job stress) but also a positive counterpart (work engagement).

Figure 3 illustrates the JD-R model.

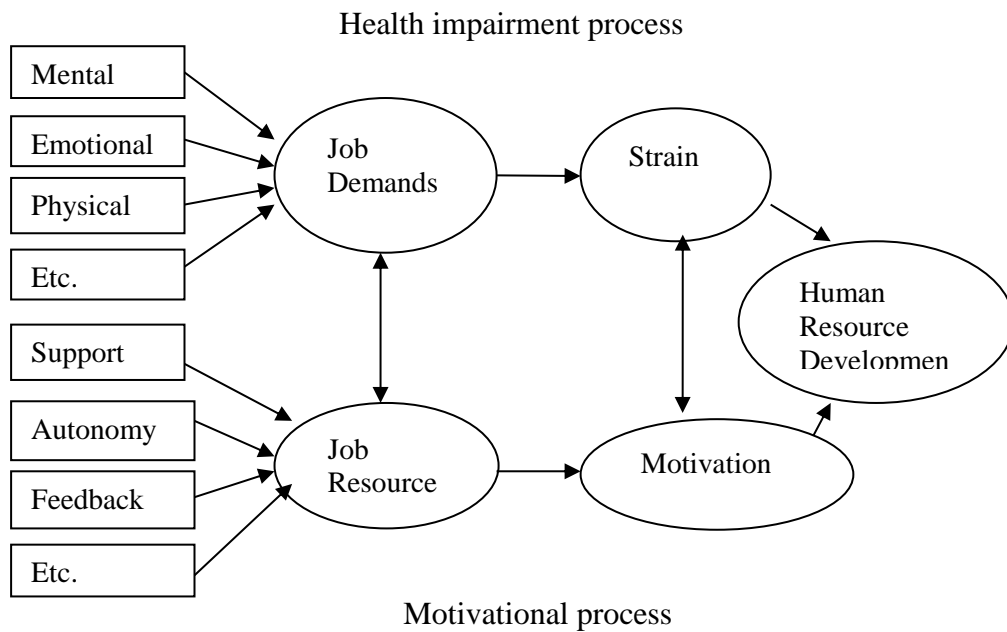


Figure 3: Job Demand Resource Model
Source: Bakker and Demerouti, (2007).

From Figure 3, mental, emotional, physical and any other job challenges like long hours of work, lack of support and job insecurity result in high job demands that wear out employees' mental and physical resources and therefore lead to the depletion of energy and health problems (strain). This may negatively affect employee development. This process is called health impairment process. Bakker and Demerouti (2007) suggest that if this process is not managed, it can have negative impact on human resource development. On the contrary, job resources mediate the negative effects of job demands and, in turn, promote employee engagement and excellent performance. This

is the process of intrinsic or extrinsic motivational process. Hakanen, Perhoniemi and Toppinen-Tanner (2008) define work engagement as a positive, fulfilling work related state of wellbeing which enhances the development of human resources. Schaufeli, Bakker, and Van Rhenen,(2009) contend that employees who are engaged are passionate, motivated and challenged by their work and are better endowed to handle job demands and have strong identification towards their jobs.

The Person – Environment Fit Theory

The central tenet of The Person-Environment Fit Theory, as noted by Edwards, Caplan, and Harrison, (1998) is that, stress emanates not only from sources within the individual employees or from the environment in which they live or work, but as a result of a fit or a match between the person and the environment. Ahmad (2010) observed that the basic notion underlying this theory is that there is the need to balance what people desire and what they receive as well as a balance between ability and the demands placed on them in the workplace. To ensure healthy conditions and the development of human resources, it is important that employees' attitude, skills, abilities and resources commensurate with the demands of their job and that the environment in which they work meets workers' needs, knowledge and skill potentials (Whitehead, 2001). A mismatch creates stress and ultimately reduces their sense of psychological wellbeing which ultimately affects their development. This notion has generated a number of theories on stress and wellbeing in organisational and psychological research.

According to Edwards, Caplan, and Harrison (1998) the Person-Environment (P-E) Fit theory has been very important in stress research

mainly because, available alternative theories have serious shortcomings such as the Stimulus- Response approach. The Person-Environment fit approach has its roots in Psychology, tracing its origin to such influential authors like Lewin, (1951) and Murray (1938). Edwards et al. (1998) believe that the P-E fit theory has certain intuitive application which captures the belief that what is perceived as pleasure in one person may be perceived as pain by another person.

The Person-Environment theory is illustrated in Figure 4.

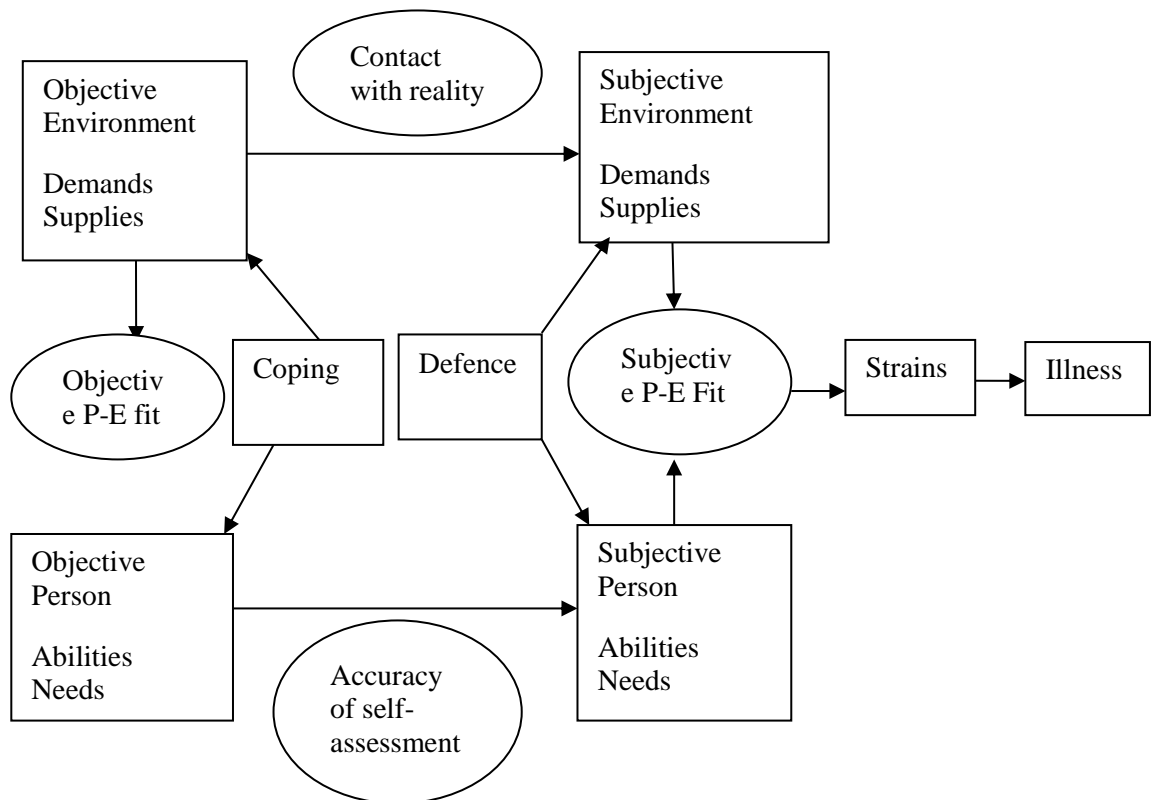


Figure 4: Person-Environment Fit Theory

Source: Edwards, Caplan and Harrison (1998).

Figure 4 displays the Person-Environment Fit theory. The diagram exhibits the concept of the person and environment which form the basis for theorising the Person-Environment fit. The objective person as indicated on the diagram represents the qualities of a person as they truly exist, while the

subjective person refers to the person's perceptions of his or her own qualities. Edwards et al. (1998) explain that, the objective environment involves the physical and social conditions and occurrences as they exist independent of the person's perception, but the subjective environment denotes situations and events as experienced and observed by the person. From the figure, the objective person and the objective environment are causally related to the subjective person and the subjective environment.

Another dimension of the theory is the objective Person-Environment fit and the subjective Person-Environment fit. Cooper, Dewe, and O'Driscoll (2001) claim that the objective P-E fit is the fit between the objective person and the objective environment. The subjective P-E fit also refers to the match between the subjective person and the subjective environment. Contact with reality refers to the degree to which the subjective environment match up with the objective environment and accuracy of self-assessment represents the correspondence between the objective person and the subjective person. Ahmad (2010) reports that the objective P-E fit has little effect on strain unless it is perceived by the person, therefore P-E fit theory emphasizes subjective P-E fit as the critical pathway to strain and other aspect of employee wellbeing and development.

Other aspect of the P-E fit is the distinction between the demands of the environment and the abilities and needs of the person and the supplies in the environment which relate to the person's needs. Dewe and Trenberth (2004) explain that demands include all aspects of job requirement, role expectations, organisational norms and values while abilities represents human resource development (i.e. aptitudes, skills, competencies, training, time and personal

energy) required for the performance of a particular job. With regards to needs, Edwards et al. (1998) posit that they cover both biological and psychological condition, values acquired through learning and socialisation and the desire to achieve results. Supplies on the other hand, refer to extrinsic and intrinsic resources and rewards available to fulfil the person's needs. The fit between needs and supplies and demands and abilities is crucial to put the person in the right state of mind.

As misfit persists (objective and subjective), the employee will put up mechanisms to resolve them. The mechanism can be coping or defence to offset the outcomes of the misfit. As noted by Dewe and Trenberth (2004) coping involves effort to enhance objective P-E misfit by either adapting to the situation or seeking training to obtain mastery over the environment. Defence on the other hand, includes effort to improve subjective P-E misfit by way of denial, projection or suppression without changing the objective misfit. Cooper et al. (2001) note that defence may include denial of experienced strain. From Figure 2, when the employee experience strain for a longer period without coping or defence mechanisms, such experiences lead to mental and physical illness which affect their development. Although the term 'stress' is not explicitly shown on the diagram, Edward et al. (1998) argue that the exclusion of stress does not threaten the internal validity of the theory.

Critics of the Person-Environment fit theory maintain that the approach is characterised with severe methodological and theoretical flaws. These flaws, according to Edwards et al. (1998), have seriously affected the conclusiveness of existing empirical evidence and recommend that the current widespread acceptance of the theory may be unjustifiable. Edwards and

Cooper (1991) observes that the P-E fit theory lacks sound measurement of the fit components, lacks adequate distinction between the types of fits, confusion of the different functional forms of fits and inappropriate analysis of the effect of fits. These shortcomings, accordingly, have narrowed the scope of empirical findings of stress research and thus violate methodological recommendations.

Edwards (1991) declares that the shortcomings of the P-E fit approach results into inconclusive and inadequate empirical evidence to stress research and thus recommends future studies to look into the problems of theory and methodology and adopt objective measurement for person and or environment. Cooper and Dewe (2004) additionally, argue that theoretically, the P-E fit approach presents inadequate emphasis of the distinction between the different forms of fit. Methodologically, they assert that the flaws of the P-E fit include imprecise and incomprehensive measurement of the fits dimensions and presents inappropriate analytical techniques in examining the effect of the fit. Moreover, Dewe and Trenberth (2004) suggest that the concept of the fit between person and environment is treated static, with emphasis on stable relationship rather than the changing processes of actions and interactions in the context of work.

Evolution and Conceptualization of Stress

According to Lazarus (1993) the concept of stress has its roots in the 14th century but only became noticeable with an experimental study by a physicist-biologist, Robert Hooke in the 17th century. Hooke's concern was how to design man-made structures like bridges to carry heavy loads to be able to withstand the test of earthquakes, storms and other natural forces.

Hooke referred to 'load' as a weight on the structure, 'stress' as the area over which the load impinged and 'strain' as the deformation of the structure created by the interaction of both load and stress. Although there has been a transition of the concept of stress from the physics point of view to other disciplines, Hooke's analysis has greatly influenced early 20th century stress research and has ultimately led to the development of stress theories in physiology, psychology and sociology.

An American physiologist, Walter Cannon legitimised stress as a subject of academic study in 1914. Cannon used the term 'stress' to symbolize a pattern of physiological response of organisms to emotional stimuli (Whitehead, 2001). Cannon's prime concern was the development of physiological theory of emotions and instincts. Though his greatest concern was not on psychological stress, later in his works he adopted the term stress and later presented on critical stress levels which he described as factors which could cause collapse of homeostatic mechanisms in relation to social and industrial mechanisms (Whitehead, 2001). Cannon defined the fight-or-flight syndrome as the set of physiological reactions that are triggered by stress. Based on the study he conducted, he concluded that severe stress could cause sudden death through the ventricular fibrillation and cardiac arrest (Sternberg, 2002).

Stress research became prominent during and after the World War II, as there were considerable interests in emotional breakdowns in response to the 'stresses' of combat (Lazarus, 2001). After the World War II, it was confirmed that many circumstances including marriage, growing up, facing examination etc could produce the effects comparable to those of combat. This

led to a growing interest in the study of stress as a cause of human distress and dysfunction. Experimental studies concerned itself with the effects of stress and how they could be explained and predicted. In 1952, Lazarus & Eriksen undertook a study and discovered that stressful conditions did not produce dependable effects. They concluded that in order to understand the effects of stress, there was the need to take into account individual differences in motivational and cognitive variables. This later was developed into the cognitive theory of stress (Lazarus, 2001).

An address by Hans Seyle to the American Psychological Association in 1950, termed as the 'Letter' stimulated great interest in the subject of stress. It was in this address he provided the most remarkable definition of stress which made him to be regarded as the 'father of stress' (Lazarus, 2001; Whitehead, 2001). Seyle defined stress as 'the non-specific response of the body to any demand for change'. His emphasis on non-specificity as the main characteristics of stressors suggests that stress is caused by interplay of various factors. Seyle's research led to the conclusion that the human body possesses an adaptive defence mechanism which assists in coping with demands placed on them. Seyle referred to this mechanism as the 'general adaptation syndrome' (Sutherland & Cooper, 1990).

In recent times, studies on stress have been widened and has greatly influenced behavioural scientist, shifting focus from the physical stimuli and their physiological outcomes (Whitehead, 2001). There has also been a change of perception from physical stressors towards psychological stressors and the effects of psychological and social influences on individuals. Lazarus (2001) determined that responses to stimuli will not have the same stressful

implication for all individuals. Thus certain characteristics of the individual, such as age, sex, level of education, experiences and social lifestyle can lead to variations of stressful experiences (Whitehead, 2001).

The term stress has been conceptualised by different researchers in different ways. Theories and empirical literature lack agreement with regards to the definition of stress. However, the different ways in which stress is defined have implications for the way it is measured and the interpretation of results. Generally, there have been three theoretical approaches to the definition and conceptualisation of stress.

The first approach, the Engineering approach or *the stimulus-based approach*, which is based on an engineering analogy, has its roots in the work of Hooke in the 17th Century (Lazarus, 1993). Hooke's concern was how to design man-made structures like bridges to carry heavy loads to be able to withstand the test of earthquakes, storms and other natural forces. Hooke referred to 'load' as a weight on the structure, 'stress' as the area over which the load impinged and 'strain' as the deformation of the structure created by the interaction of both load and stress. The stimulus-based approach conceptualises stress as threatening or harmful characteristics of the environment, usually conceived in terms of load or level of demand placed on the individual. Researchers using this approach have defined stress as a phenomenon which is extraneous to the individual without any regards for individual differences, perception or experiences (Whitehead, 2001). This approach considers stress as a very disruptive environmental factor. Studies using this approach consider stress as an independent variable or input which

is said to produce strain reactions that could be very damaging to the individual (Jovanovic, Lazaridis & Stefanovic, 2006).

The Engineering or stimulus-based approach perceives stress in terms of the degree of the demand placed on the individual by an environmental stimulus, and the individual's strain response in terms of a move towards restoring equilibrium, thus linking the environment to individual health outcomes and their development (Staal, 2004). Researchers have used various methods in identifying potential stress stimulus in the environment. These stressors are identified as environmental stressors which include noise, heat, dirt, vibration and chemical substances in the work environment. Stress is treated as an objectively measurable aspect of the environment in much the same way as observing stress imposed on a bridge and its effects (Jovanovic, Lazaridis & Stefanovic, 2006). The engineering approach has been given much attention in occupational health and stress studies due to its scientific background which makes it possible to measure stress in an objective way (Whitehead, 2001).

The engineering approach has, however, been flawed. Staal (2004) argues that this approach merely turns human beings into machines that react to environmental stimuli. The approach ignores individual differences, experiences and perceptions and assumes that all individuals will react in much the same way in response to particular environmental stimuli. Whitehead (2001) also maintains that even when two individuals are confronted with the same environmental stimuli, their reactions may be different and may show strains at different times. Jovanovic et al. (2006) suggest that noise levels (environmental stimuli) which are normally

disruptive may help maintain task performance when individuals are tired and fatigued, while higher levels of music may be chosen freely in social and leisure situations.

Whitehead (2001) identifies that responses to a stressor must first be recognised before the search can begin for the stimulus which preceded it, however this approach did not incorporate any intervening process that explains this process. Staal (2004) maintains that individual emotions are not explained by the scientific approach, it only assumes objective emotions which may not be the case. Jovanovic et al. (2006) point out that the engineering approach does not evaluate circumstances and leaves out emotions. They argue that certain stimuli by virtue of their meaning to particular individuals may be a source of stress to them while others may perceive it as not stressful.

The second approach to the conceptualisation of stress is the physiological approach, also known as the *response-based approach*. Walter Cannon, an American Physiologist used the term 'stress' to symbolize a pattern of physiological response of organisms to emotional stimuli (Whitehead, 2001). . The physiological approach defines stress in terms of patterns of responses (cognitive, behavioural and affective) that result from the exposure of a given stimuli (Staal, 2004). The physiological response outcome identified by this approach may be in the form of anxiety, anger, increased blood pressure and headaches which are endogenous (coming from within the individual) and are used to measure the stress levels of individuals (Whitehead, 2001)).

The physiological approach received its original impetus from the work of Selye (Lazarus, 2001). According to Selye, stress occurs in three stages: the alarm stage, the resistance stage and the exhaustion stage. The alarm stage is the state of psychological responses alerting the defensive forces in the environment. The stage prepares the body mechanism for action. If this stage persists, a state of resistance will emerge. Selye (1978) explains that when the resistance stage occurs for a longer period, it poses a threat to the individual's wellbeing and development. As stress persists, the individual will become exhausted, thus entering into the third stage, where the risk of emotional and psychological problems increases. At this stage, the individual will experience symptoms of exhaustion and finally a collapse (increase in blood pressure, anxiety, cardiac problems and death) will occur (Nikom, 2005).

The physiological or the response-based approach has equally been criticized just like the engineering approach. Jovanovic et al. (2006) maintain that the approach is conceptually dated since it is set within a relatively simple response-based paradigm. Krohne (2002) asserts that the approach has not been theoretically driven and empirically supported. The approach largely ignores individual differences of a psychological nature and the perceptual and cognitive processes that might underlie it. It also pays no attention to the interactions between the individual and the environment which is an essential part of the work systems. The physiological approach fails to consider the psychosocial and organisational context to work stress (Whitehead, 2001).

Stokes and Kite (2001) suggest that noxious stimuli may not produce stress in its entirety as suggested by the approach. Krohne (2002) emphasizes that Selye's usage of stress as a synonym for diverse terms like anxiety, threat,

conflicts and emotional arousal cause the concept to lose its scientific value. The physiological approach also fails to specify those mechanisms that may explain the cognitive transformation of objective noxious events into subjective experiences of being distressed. The approach disregards any coping mechanisms which may mediate the effects of stress related outcomes (Krohne, 2002). Stokes and Kite (2001), as quoted by Staal (2004), opine that the physiological measures have failed to provide a complete understanding of the human stress response and do not adequately connect to stress and thus a third approach to understanding the human stress response is needed.

The many limitations levelled against the engineering and the physiological approaches to the conceptualisation of stress brought about a new paradigm of stress which considers stress as a psychological process (Lawler, 2012). The Psychological approach to the definition and study of stress conceptualises it as the dynamic interaction or transaction between the individual and the environment, including the individual's perceptions, expectations, interpretations and coping responses, thus emphasising the role of the individual's appraisal of situations in shaping their responses (Kula, 2011). From the transactional viewpoint, stress is conceptualised as the result of a mismatch between the individual's perception of the demands of the task or situation and their perception of the resources for coping with these demands.

The central tenet of the transactional approach is based on the notion that emotional processes, including stress are dependent on actual expectancies that the individual manifests with regards to the significance and outcome of a specific encounter. Krohne (2002) believes that this idea is

important in explaining individual differences in quality, intensity and duration of an elicited emotion in the environment that are objectively equal for different individuals. Whitehead (2001) established that the approach considers two processes as central mediators within the person-environment transaction – cognitive appraisal and coping. The transactional approach to the definition of stress marks the beginning of the development of stress models that explain the fit or match between the individual resources for coping and the demands of the work environment.

This study is based on the transactional approach to stress, which does not just look at the environmental stimuli or a response to demand, as other concepts have suggested, but instead treats stress as a dynamic concept which emphasises cognitive appraisal by individual of the work environment as posing threat or stressor which is a necessary condition for stress reaction. The study also takes into consideration individual differences in eliciting stress responses as suggested by the transactional approach to stress. Cognitive appraisal involves identifying the harmful elements within the work environment as well as finding resources and strategies to deal with those elements (coping).

Determinants of Job Stress

According to the Transactional theory of stress, not all individuals who are subjected to particular stressors experience or react to them in the same way. Whether or not certain stressors affect individuals will depend on their physiological, psychological and social predisposition. Undeniably, empirical studies have revealed that individual demographic characteristics can determine the way people respond to job stress (Cope,

2003; Hunnur & Bagali, 2014; Shanker, 2012; Tandon et al., 2014). As determined by Lazarus (2001) responses to stimuli will not have the same stressful implications for all individuals. Certain demographic characteristics such as age, sex, level of education and experiences, and social lifestyle can lead to variations of stressful experiences. Job stress literature has provided varied evidence of other organisational factors which may have significant effects on employee stress levels. These organisational factors are role ambiguity, work overload, long hours of work, work life conflict and lack of career development (Achibong, 2010; Malik et al., 2013; Mohd, 2011; Nirmala, 2015; Quhadar, 2008; Tang & Chang, 2010 and Yongkang et al., 2014;).

Age

Age has consistently been observed as a significant modulating factor of job stress. A number of academic studies have examined the link between age as a demographic variable and job stress. In a literature review on the correlation between demographic variables with job stress and coping strategies of Pre-School Educators, Okeke, Adu, Drake and Duku (2014) identified a significant correlation between age and job stress. They found that employees between the ages of 40-50 have higher levels of job stress as compared to those with less than 40 years and more than 50 years. This finding was confirmed by Affum-Osei, Agyekum, Addo and Asante (2014). Their study revealed that 60.3 percent of staff between the ages 40 and 50 years experienced higher levels of job stress.

In examining the influence of demographic variables on stress among police personnel in Bangalore with a sample of 225, Hunnur and Bagini

(2014) established that staff between the ages of 41-50 experienced more job stress than those between the ages of 20-30 and 51-60. Moreover, Tandon, Mahaur and Gupta (2014) found that the mean score of 30-40 years and 41-50 years is higher in terms of job stress experiences than the ages of 51-60. Griffiths, Knight and Mahudin (2009) reporting on the association between aging, work-related stress and health confirmed that older workers between the ages of 51-60 have lower levels of job stress because they may have left jobs they considered stressful or they may have greater control over their work lives, and may be better supported, more experienced and adaptable to the work environment.

In a descriptive study, Qadimi and Praveena (2013) report that workers within the ages of 21-30 experienced lower levels of job stress. The authors attributed this finding to the fact that in early stages of career development people become more enthusiastic and relaxed because they perceive more opportunities ahead, this may be the results of less stress experiences by younger people. Additionally, younger people do not have so many family and job responsibilities as compared to older people who may have high job stress levels because they are approaching retirement and have more responsibilities taking care of families and other job responsibilities (Affum-Osie et al., 2014).

However, Aftab and Khartoon (2013) observed that younger staff members between the ages of 22-32 reported having higher levels of job stress compared to older staff members. They concluded that this was due to lack of experience and great anxiety on the part of younger staff members as they begin their career. Aftab and Khartoon's findings supported the findings of Vokic and Bogdanic (2005). Vokic and Bogdanic conducted a survey in

Croatia to investigate the individual differences and job stress with a sample population of 900. Their findings revealed that employees who were less than 30 years old experienced the highest levels of job stress. The major explanation they gave to their finding was that, older employees have often reached a stage where career development is not a major concern to them hence the job characteristics that pose as stressors to younger employees do not pose as stressors to older employees who are grounded in their career.

Sex

With greater opportunities for female education as a result of driving forces of rapid economic growth, the gender gaps in the labour force have dwindled with growing female participation in paid work. Due to the emerging issues in female employment, women's roles have undergone some changes (Lim, 2009). In recent years, studies have investigated extensively areas within the realm of working females, including dual-role stress in working females. Studies that focus on stress management programmes for working females examine gender differences in work stress and coping (Aftab, & Khartoon, 2013; Bashir, Khan, Rehman, Qureshi, & Khan, 2013; Noor & Maad, 2008 and Sandmark & Rentig, 2010).

It has been confirmed that sex differences play an important role in the manner in which individuals would express themselves as far as workplace stress is concerned (Bashir et al, 2013). Munir and Mehmood (2013) suggest that women participation in labour force has increased over the last two decades and it has become critical for organisations to understand the sex differences that exist with regards to workplace stresses for business success. While Health and Safety Executives (2000); Vanagas & Bihari-Axelsson

(2013), believe that men exhibit high levels of job stress than their women counterpart, studies on sex differences have consistently reported that women generally have high levels of job stress. Griffiths, Knight, and Mahudin (2009) postulate that the differences in job stress among men and women may be as a result of hormonal changes in women as they approach menopause. They emphasised that women who are going through menopausal changeover more often report stressful experience.

Brickford (2005) suggests that women are predominantly reported to be negatively affected by workplace stress than men because of the principal role played by women in the provision of family care. It is well established that the total workload of women who are employed full-time is higher than their male counterpart, particularly where they have family responsibilities. Cohen and Janicki-Deverts (2009) contend that women suffer prejudice and discrimination in organisations, especially those who occupy senior positions both as a result of organisational policies and from their colleagues at work, this makes them susceptible to workplace stress.

Cope (2003) reports that men are four times more likely to die of stress related illness, five times more likely to die of alcohol-related diseases and have an average life expectancy of eight years shorter than women, however, a report by the American Institute of Stress (2011) indicates that women have higher levels of stress than men. According to Vanagas and Bihari-Axelsson (2013), this may be as a result of different cultural expectations of men and women, with women being more likely to admit negative feelings and lack of confidence. In analysing gender differences in stress among university teachers in Gomal University, Pakistan, with a study population of 250,

Bashir, Khan, Rehman, Qureshi, and Khan (2009) used independent sample t-test to identify such differences. The study found a significant difference between men and women with respect to job stress. However, such difference did not have any association with teaching stress.

Level of Education

The level of education of employees has usually been linked with their job stress levels. Cope (2003) observes a positive relationship between level of education and income which also has psychological and physical effects on stress. Level of education influences how individuals will respond to stressful experiences. When employees are well educated and adequately trained, they become well equipped to handle technical responsibilities associated with their tasks and this gives them maximum control. As suggested by the Job demand control theory, employees who have adequate control over their jobs exhibit less stressful experiences. Aftab and Khatoon (2013) also establish that employees with lower levels of educational qualifications report higher levels of occupational stress than employees with higher levels of education. They explained that this may be due to the fact that employees with lower levels of education mostly have challenges in understanding the organisational policies and roles and have difficulties in performing certain job tasks which pose as stressors to them.

However, in a descriptive study with a sample population of 130 employees in Iran, Rahmani, Khodaei, Mahmudhani, Moslemi, and Gharagozlou et al. (2013) employed a Cooper's standard questionnaire for stress in the work environment to examine the relationship between stress and demographic variables. It was discovered that the level of education had a

positive relationship with job stress. This finding presupposes that as the level of education of employees increase, job stress also increases. Kula (2011), however, suggests that these findings are not consistent with the common findings that the higher one's educational attainment, the lower their stress levels. Rahmani et al. (2013) opine that this may be as a result of the complex roles and expectations assigned to those employees with higher educational qualifications, such as managerial roles which usually encompass a high degree of thinking and problem solving through the entire organisation.

Marital Status

According to Bickford (2005) marital status has no significant influence on job stress. Additionally, Abirami (2012) reports that being married is not a stress causing factor as it is established that married people tend to get social as well as family support and this makes them both happy and successful in their professions and career lives. However, empirical studies have revealed a significant relationship between job stress and marital status (Nagina, 2009; Nagaraju & Nandini, 2013; Osmany & Khan, 2013). Garima and Kiran (2014) aver that married people are more stressed than their unmarried group. Their impact analysis on 180 employees in the police department in Lucknow revealed that married people are required to make a lot of social adjustments in addition to their job responsibilities and this causes more stress and anxiety to them which negatively affect their mental health and development.

In a similar study, Nagra and Arora (2013) reported a higher mean score for married people in terms of levels of job stress than their unmarried counterpart. This finding indicates that married employees are more stressed

than unmarried employees. They suggested that this result may be due to the dual responsibilities of job and family since married workers have to devote extra time and effort to take care of their family, children, spouses, in-laws and other domestic routines, together with their organisational roles. Consequently, married employees are not able to socialise and build peer relations and thus face conflict both at work and home which increase their stress levels. This argument is supported by Affum-Osei et.al. (2014).

However, in examining the influence of sex, marital status and tenure of service on job stress of health workers in Nigeria, Olatunji and Mokuolu (2014) found that unmarried people were the most affected with respect to job stress. The researchers explained that unmarried people lack social support and other social network resources which make them unhappy and vulnerable to stress. Olatunji and Mokuolu (2014) also identified that of all the sub-groups, divorced and widowed employees were the most stressed, followed by the separated. They suggested that the loss associated with losing a loved one in death or divorce was a bad experience, hence culminating into stressful experiences in addition to other social and work demands.

Work Experience / Tenure

Studies suggest that work experience of employees significantly influence their stress levels. A study by Aftab and Khartoon (2013) revealed a significant relationship between occupational stress and employees' work experience. Lundberg and Cooper (2011) establish that employees who have acquired certain job experiences are in a better position to become accustomed to certain specific work conditions, gained knowledge and may have great understanding of the culture of the organisation which helps them to enhance

their coping abilities with job stress. As people gain more experience on a job, they are able to employ effective coping mechanisms that help them to minimise the incidence of work related stress.

Balakrishnamurthy and Shankar (2009) noted that the mean job stress score for employees with over 15years work experience indicate low job stress levels as compared to those with work experiences of 10-15years. The reason for this results according to them may be that more experienced people had learnt certain stress management tactics in the course of their career thereby enabling them to effectively deal with stress that emanate from the job environment. The authors also reported that employees with less years of experience between 0-5years were the least stressed. They explained that younger employees in the initial years of their career enjoy their work to the fullest and thus do not have any incidence of job related stress.

Munir and Mehmood (2013) opine that work experience can have a significant effect on employee stress levels. They suggested that work experience come along with high job rank or job position, high income, high job satisfaction and high recognition. However, their analysis revealed a non-significant effect of employee work experience on stress. Hunnur and Bagali (2014) also confirmed the findings of Munir and Mehmood by observing a non-significant relationship between occupational stress and employees' work experience. In assessing the impact of demographic variables in sources of stress among university teaching staff in Pakistan, Bashir et al. (2013) recorded a non-significant relationship between work experience and occupational stress.

Organisational factors and job stress

Empirical studies have identified that apart from certain demographic variables which are considered as endogenous, other factors within the work environment can act as stressors to influence employees' levels of stress. These factors are described as organisational factors because they emanate from the work environment. Among them are role ambiguity, work-life conflict, lack of career development opportunities, work overload and long hours of work.

Work Overload

Work overload is described as a situation where the job holder or employees are expected to perform too many complex tasks within a limited period of time. Work overload as a work demand is a major component of the demand-control theory of stress. The theory suggests that jobs with high demands can be stressful, especially when the individual has low control over the job. Work load has been linked to a number of strain reactions including anxiety, physiological reactions, fatigue, headaches and backaches. Leung, Sham and Cham (2007) propose three aspects of work overload: quantitative work overload, qualitative work overload and work underload. Quantitative work overload is described as a situation where employees have more work to do than can be accomplished comfortably within a specified period of time. Qualitative work overload is a situation where employees have to accomplish too difficult tasks in a given period. Work underload is a condition where the required set of tasks does not adequately satisfy the individual's capabilities or fit the time allotted for completion. Vanishree (2014) notes that all the three

aspects of work overload have a significant link with employee stress in organisations.

As reported by Cope (2003) both quantitative and qualitative work overload significantly related to indication of stress such as absenteeism, low motivation and strained behaviors that result in psychological and physical disorders. She concluded that work overload result in employee stress which increased job tension, employee heart rate and increased intake of drugs and alcohol. In their correlational analysis, Karimi, Omar, Alipour, and Karimi (2014) find a significant positive correlation between workload and stress. They further argue that as employees are assigned complex and difficult tasks, they become strained as their capabilities and resources do not match. Consequently, there is a tendency to send work to the house for completion which eventually results in work life conflict and stress.

Work - Life Conflict

Work-life conflict is described as a form of inter-role conflict in which work and family demands are mutually mismatched and negatively influence the employee's family responsibilities (Shen & Jiang, 2013). It is a situation where workers spend so much time on job roles, such that it leaves them little time to attend to personal needs, family needs and other social responsibilities. Every employee is a member of a family and an organisation, therefore they have responsibilities towards their families in the form of household responsibilities, raising young children, supporting partners and are also responsible for the social communities as well as responsibilities towards their organisations. A struggle occurs due to the limited time and resources to meet the demands of both the family and the organisation. As noted by Bell,

Rajendran and Theiler (2012) and Nart and Batur (2014), this limitation of time and resources can cause increased stress, tiredness, weariness, performance loss, decrease work satisfaction and organisational commitment.

Noor and Maad (2008) posit that work-life conflict occurs because of the deprivation of the responsibilities of an individual when he or she cannot carry out the duties related to the household life. Shen and Jiang (2013) suggest three categorization of work-life conflict; time-based, strain-based and behaviour-based work-life conflict. Carlson and Frone (2003) assert that time-based work-life conflict arises when the amount of time an employee devotes to work leaves him or her too little time to be spent on family and other social responsibilities. As established by Lambert, Pasupuleti, Cluse-Tolar, Jennings, and Baker (2006) strain-based work-life conflict comes into being when the stress (anxiety, depression, fatigue, tension and psychological preoccupation) that employees experience at work spills over into his or her non-work life. Behaviour-based work-life conflict describes circumstances where work behaviours may be incompatible with behaviour routines that are prescribed by non-work roles (Ryan & Haslam, 2007).

Studies have established a significant positive correlation between work-life conflict and work stress. Wallace (2008) establishes that there is a significant effect of work-life conflict on work stress. In a similar study, a multiple regression analysis by Nart and Batur (2009) reveal that work-life conflict significantly affected work stress among Turkish primary school teachers. In identifying the level of work life conflict and job stress among employees in Malaysia with a sample of 110 using quantitative survey

method, Jamadin, Mohamad, Syarkawi and Noordin (2015) observe a positive correlation between the two constructs.

Noor and Maad (2008) recommend that for an organisation to be effective and productive, such organisation should combine work-life balance policies with other human resources practices such as work redesign and commitment enhancing incentives. They advised that work-life harmony is a critical business strategy to reduce work stress, employee turnover and improve overall organisation performance. In their meta-analysis, Malik, Gomez, Ahmad, and Saif (2010) concluded that organisations should employ effective work-life balance policies (such as flexible working hours programs) to enable employees to focus on families, hobbies, travelling and studies to enhance organisational performance, reduce work related stress and turnover, and to increase employee loyalty and job satisfaction.

Workplace verbal abuse and physical assault

Workplace verbal abuse on workers is defined by Oztunc (2006) as any form of communication via behaviour, tone or words that are intended to humiliate, degrade or disrespect an individual, leaving the recipient feeling emotionally hurt or personally or professionally attacked and devalued, thereby leading to stress and anxiety, damaging the workers' health, and resulting in a decrease of happiness and or productivity. Physical assault on the other hand is defined as the intentional application of force against a person without lawful justification, resulting in physical injury or personal discomfort (HSE, 2013). McLaughlin, Gorley and Moseley (2009) noted that workplace verbal abuse and physical assault result in long term stress of workers. Frequent verbal abuse and physical assault on employees elicit

frequent and strong emotional reaction, because these negative events typically evoke strong stresses and strains resulting in various negative outcomes (Karatepe *et al.*, 2009). Verbal abuse at the workplace has been associated with poor employee performance, resulting in inefficiencies and ineffectiveness which affect organisational sustainability and profitability (Devonish, 2013).

There is empirical evidence to show that workplace verbal abuse and physical assault are common in the health service delivery where patients turn to abuse health workers and vice versa (McLaughlin *et al.*, 2009; Murray, 2009; Oztunc, 2006). In a study among trolley car drivers in the Netherlands, it was found that verbal abuse and physical assault resulted in emotional exhaustion (Kisamore, Jawahar, Liguori, Mharapara & Stone, 2010). Boafo, Hancock and Gringart (2016) reported that workplace verbal abuse often lead to decline in performance, headaches, and unhappiness and can become highly stressful as it could lead to people becoming more anxious and easily upset. In a study by Cassum (2014) it was found that a major stressful job factor in the Pakistani context is verbal abuse. Workplace verbal abuse and physical assault is reported to be prevalent in organisations that deal directly with their customers or clients. The ‘customer is right’ philosophy results in an unequal power between employees and customers, requiring employees to serve customers in a friendly and polite manner even in the event of customer or client verbal aggression and harassment. Yagil (2008) asserts that these circumstances lead to emotional dissonance which gives rise to emotional exhaustion and burnout in employees.

Long hours of Work

Long working hours involve a prolonged period of effort put in solving work tasks and thereby exposing employees to potential stressors, which in turn, increase the risk of stress-related diseases. The regulation of working time is one of the oldest concerns of labour legislations. It has long been recognized that long hours of work pose danger to employees' health and that of their families. The first International Labour Organisation (ILO) Convention adopted in 1919 limited hours of work and provided for adequate resting period for employees (International Labour Conference Report, 2005). In recent times, ILO standards on working time provides the framework for regulated hours of work, daily and weekly rest periods and annual holidays. The framework established that employees are to work eight hours a day and forty hours in a week (ILO Standards, 2005).

These instruments ensure high productivity while safeguarding employees' physical and mental health. Virtanen, Singh-Manoux, Ferrie, Gimeno, Marmot, Elovainio, et al. (2009) aver that it is important to limit the working hours for employees to promote better work-life balance and reduce work-related stress. Long hours of work have been found to be associated with cardiovascular and immunologic reactions, reduced sleep duration and unhealthy lifestyle. A study by the Organisation for Economic Cooperation and Development (OECD, 2005) examined the relationship between premature death and long working hours in developed countries. It was established that long hours of work was the highest predictor of premature mortality. Major (2002) concluded that long hours of work increase work

family conflict and this conflict is in turn related to depression and other stress related health problems.

Many researchers believe that there is a link between working long hours and stress which ultimately affect health outcomes. So (2009) reports that employees involved with weekend work and prolonged working hours significantly have higher levels of emotional exhaustions, job stress and psychosomatic health problems. As noted by Bloom and Canning (2005), employees who work for long hours are more prone to poor life style habits, such as heavy smoking, inadequate diet, and lack of exercise, and behaviours that can lead to health problems. The Health and Safety Executives (HSE, 2004) reports that long hours of work may increase maladaptive life style habits which include smoking and drinking which are detrimental to employees' physical health.

Role Ambiguity

Role ambiguity has been described as the degree of certainty employees have about their functions and responsibilities. Zhao and Rashid (2010) believe that role ambiguity occurs when employees feel they lack the relevant information needed to effectively perform their job roles. Empirical studies have found consistent and significant evidence that role ambiguity has a dysfunctional impact on various job outcomes; satisfaction, tension, performance and stress (Harris et al., 2006; Khattak et al., 2013; Quhadar, 2008). The classical theory specifies that every position in a structured organisation should have a set of tasks or position responsibilities; role ambiguity reflects the degree of employees' uncertainty regarding the appropriate actions in performing job functions (Ram, Khoso, Shah, Chandio

& Shaikih, 2011). Role ambiguity causes role dissatisfaction, increased anxiety, job tensions, workplace stress, turnover intentions distort reality and thus affect job performance (Harris, Artis, Walter, & Licata, 2006).

According to Lankau, Carlson, and Nielson (2006) role ambiguity has direct and negative relationship to job stress and satisfaction. The researchers establish that if role ambiguity was reduced, the level of job satisfaction will be increased, thereby alleviating the effect of job stress. Nonetheless, in a path analysis using structural equation modelling with a sample of 124 academic staff, Safaria, Othman and Wahab (2011) report that role ambiguity has no direct effect on job stress. Contrary to the report by Safaria et al. (2011), Khattak, Quarat, and Igbal, (2013) observed that role ambiguity not only had a significant effect on job satisfaction but also significantly affected job stress. The results of their regression analysis revealed that when role ambiguity increases, job stress also increases and vice versa. This assertion was confirmed by a study conducted by Khuram, Sarwar, and Farhan (2014) who also found that role ambiguity significantly impact on job stress.

Lack of Career Development

Career development has been named by several researchers to be an important stress factor. Career development involves creating opportunities for promotion within an organization and providing opportunity for training and skill development that allows employees to improve their employability on the internal and the external labour market (Meyer & Smith, 2003). Armstrong (2010) believes that an organization that wants to strengthen its relationship with its employees must invest in the development of its employees. He further argues that employees who feel they are not developing, feel frustrated

and anxious and get stress reactions. Therefore, organizations will do a better job by spending more resources on training and development of employees. Employees who benefit from their organisations through training and educational facilities tend to be more committed and loyal to that organization. Moreover, educated and trained employees help in increased production and thus sustaining a competitive position for their organisations.

A study conducted by Robert Half International Inc. in the United States on the reasons why people leave their jobs indicated that, most people leave for advanced career opportunities and development and not necessarily for monetary factors (Kristof-Brown, Zimmerman, & Johnson (2005)). Wright, Gardner, Moynihan & Allen(2005) postulate that it is important for organisations to recognize that training and educating employees has mutual benefits because it provides important outcomes for both parties. They conclude that offering training and development opportunities are effective in reducing workplace stress. Career development constitutes a visible investment that an organisation makes in the employee, providing him or her with new skills, greater capabilities and self-reliance which ultimately improve human resource development. This often leads to work that is more intrinsically rewarding.

Ongori & Agolla (2009) contend that lack of personal growth in organizations results in career plateau which in turn leads to increased employee stress. Many employees find themselves in jobs that offer them limited mobility opportunities in terms of upward movement in the organization. Career plateau is thus seen as a major contributing factor to employees stress and ultimately intentions to quit. Human Resource

professionals thus have a greater responsibility of managing career plateau and hence minimize employee stress. According to Lee (2003) plateau employees are likely to have higher labour turnover because they want to advance their careers elsewhere in the environment. Studies have shown that employees who have attained plateau have a high degree of stress due to reduced opportunity in the present organization (Jintoa, Ma & Ku, 2009). Career development opportunities support employees to make long-term commitment to their employers. It permits them to see a future with their current organisations. Swanson & Holton (2008) advocate that employee training and development should be seen as an investment rather than expenditure, with planning and budgeting requirements, similar to those dedicated to capital improvements.

An organization's human capital is one of its key sources of differentiation, and employees are more likely to remain satisfied if they receive an effective orientation and regular access to technical and non-technical training. Competency-based training and development increases employee productivity, reduces stress, improves job satisfaction, aids in the recruiting process, rewards long-time employees, and reduces the need for employee supervision (Steel & Griffeth, 2002). Meyer & Smith (2003) suggest that employee learning which encompasses training and development contribute to stress reduction by building employee commitment through a show of support, providing employees with the means to deal with stress related to job demands and change, serving as an incentive to stay, and creating a culture of caring. Thus, training and professional development are seen as ways of building employee commitment in that they allow employees

to 'see a future' where they work, and provide them with the support necessary to face the on-going challenges related to their work.

In their exploratory analysis, Lee-Kelley, Blackman, & Hurst,(2009) draw attention to the importance of employee training and development because they discovered that education plays a very important role in equipping employees with new skills, enhancing performance and reducing job related stress. They advised that, organisations should build up policies that focus on career development in an attempt to reduce work related stress and retain the organisation's valuable employees. Learning opportunities can be seen from three perspectives; opportunities to learn new things on the job, being able to have creative skills to enhance the performance of the current job and being able to manipulate what happens on the job. Taylor (2004) identified that challenging and extensive learning opportunities can be associated with better psychological functioning, personal growth, coping styles and adequate feedback.

Taylor (2004) concluded that the dramatic difference in the rates of job satisfaction for employees in small companies relative to large companies could be attributed to the extent of workplace learning opportunities available in small companies. Way (2002) claims that if employees feel they are not learning and growing, they feel they are not remaining competitive with their industry peers for promotion opportunities and career advancement. Once employees feel they are no longer growing they become frustrated, this triggers off stress reactions and thus causing employee to look externally for new job opportunities that can offer them learning opportunities. Lee-Kelly et al. (2009) also established that the perception of the importance of learning to

employees and the quality of work climate is a strong predictor of work related stress. The researchers suggest that human resource management should formulate policies that put more emphasis on employee development and training in order to reduce work related stress, increase job satisfaction and retain the needed talent for effective performance. One of the ways they recommend organizations can achieve this, is by ensuring that opportunities for personal advancement and growth are consistently available.

Sutherland (2008) notes that as organisations train and develop their members to equip them with knowledge to perform the job, the greater the tendency of them moving away. Studies have shown that if employers do not attend to employees training needs, they leave (Hay Group, 2007). If employers develop them, some will leave anyway but the organization will still benefit from their knowledge and competence for as long as the employees remain with the organisation. Mitchell (2001) however contends that if the training given to employees is off-the-job, then they will go out to explore their skills acquired. Consequently, researchers suggest that training and development given to employees should be on-the-job based to develop their skills and competencies on their current jobs. Nonetheless, employees should be given the chance to advance in their careers since employees with greater opportunities for self-growth and development are as well committed to their organizations.

In a path analytical approach, Yousef (2002) discovered that lack of career development directly influenced job satisfaction and increased employee stress levels. He recommended that organisations should draw attention to improving career prospects in order to reduce stress and improve

employee satisfaction. In determining stress factors among university academic staff in Nigeria, using a sample of 279, Achibong, Bassey and Effiom (2010) identified that career development had the highest mean score and was ranked first as the greatest source of employee stress. They concluded that management should provide funds for staff career development purposes.

Coping Mechanisms for job stress

The Transactional theory of stress incorporates coping resources as a mechanism for dealing with stressful situations. Coping mechanisms are ways to which external or internal stress is managed, adapted to or acted upon. Folkman and Lazarus (1984) define coping mechanisms as constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing. It involves an adaptation to environmental stress that is based on conscious or unconscious choice and that enhances control over behaviour and provides some psychological comfort. Coping mechanisms available to the employee assist in evaluating or appraising a situation as being stressful or not. Coping style reflects an individual's cognitive and behavioural efforts to change certain behaviours with the goal of dealing with specific internal and external environmental demands that are appraised as taxing or exceeding the individual's own resources.

Lazarus (2001) presents the most widely acceptable definition of coping. He defines coping as cognitive or behavioural efforts to prevent or reduce threat, harm and loss, or to minimize distress associated with stress. Ntoumanis, Edmunds & Duda (2009) also describe coping as the cognitive and behavioural efforts employed by an individual to deal with demands that

are created by the stressful person-environment transaction. Ryan and Haslam (2013) posits that coping strategies have two primary functions; the first is to manage problems which are causing stress to an individual, and second, is to rule over the emotions which are related to these stressors.

Folkman and Lazarus (1984) classified coping strategies into two categories; problem-focused and emotion-focused coping strategies. Okeke et al. (2014) suggest that problem-focused strategy is a cognitive resource that concerns the extent to which individuals maintain a positive sense of self-worth, a positive outlook towards others and optimism about life in general. Coetzee and de Villiers (2010) additionally put forward that problem-focused coping is a coping behaviour that is directed towards the management and alteration of the problem confronted by the individual that cause distress. It is a confrontational and problem solving strategy that involves defining the problem and generating alternative solutions. As identified by Ryan and Haslam (2013), problem-focused coping strategy is generally viewed as an adaptive mode of coping that involves actively planning or engaging in specific behaviour to overcome the problem causing the distress. Thus problem-focused coping includes planning, active coping and using instrumental support such as supervisors, mentors, partners, spouses and family members.

According to Okeke et al. (2014) emotion-focused coping strategy is aimed at controlling the emotions linked with the stressful situation. This strategy includes avoidance, minimization, selective attention and positive comparison. These strategies help in the amelioration of long term negative consequences of stress. Emotion-focused coping strategy as described by

Shueh-Yi and Tam (2014) is mostly employed when the individual perceives the situation as unavoidable and uncontrollable. Ntoumalis et al. (2009) confirm that emotion-focused coping strategy aims to regulate the unpleasant emotions that arise during stressful encounters.

Lazarus (2001) observed that no one coping strategy is inherently better than the other. He suggests that effective coping strategy requires a match or fit between situational appraisal and the choice of coping responses. Where the employee perceives the situation to be unavoidable and uncontrollable, emotion-focused strategy may be utilized. However, Shueh-Yi and Tam (2014) noted that problem-focused and emotion-focused coping are not two distinct functions but both facilitate and complement each other in the coping process and one may be more beneficial than other in different situations.

This interrelatedness of problem-focused and emotion-focused coping strategies makes it more useful to think of these two as complementary coping functions rather than as two fully distinct and independent coping strategies (Ryan & Haslam, 2013). Additionally, Lazarus (2001) postulate that coping is a dynamic process which substantiates intra-individual and inter-individual variability. Individuals might have to utilize different coping strategies at different stages of the same stressful encounter to another. Moreover, coping strategies that are effective for one individual may not be effective for another person in the same situation.

Carver and Connon-Smith (2010) on the other hand categorize coping strategies into engagement and disengagement coping. The authors described engagement coping as an approach coping which seeks to deal with the

stressors or related emotions. According to Skinner, Edge, Altman and Sherwood (2003) engagement coping includes problem-focused coping which comprise support seeking, emotion regulations, acceptance and cognitive restructuring. Engagement coping has been described as a positive coping strategy since it deals directly with the stressor or is focused on eliminating or managing the stressors and the related emotions (CISPC, 2010).

Disengagement coping on the other hand includes responses such as avoidance, denial and wishful thinking. Carver and Connon-Smith (2010) suggest that disengagement coping is emotion-focused because it involves an attempt to escape feeling of distress. The Crisis Intervention & Suicide Prevention Centre of British Columbia (2010) affirm that disengagement coping strategies are negative coping responses which result in unhealthy behaviours such as smoking, drinking alcohol excessively over/under eating and drug abuse.

Skinner, Edge, Altman and Sherwood (2003) had established that individuals who employ disengagement coping act as though the stressors are not in existence so that they will not respond to it both emotionally and behaviorally. That is they try to distance themselves from the stressors at least temporally. Despite the attempts to deny the existence of stressors thereby escaping from the stress, studies have shown that the strategy is ineffective in the long run. Najmi and Wegner (2008) claim that disengagement coping can have negative consequences. They maintain that avoidance and denial can promote paradoxical increase in invasive thoughts about the stressors and an increase in negative mood and anxiety. Carver and Connor-Smith (2010) declare that some kinds of disengagement strategies can create problems on

their own, such as excessive use of drugs and alcohol can have serious health implications on the individual as well as generate social problems.

Schwarzer (2001) observed that coping may be multidimensional. He identified four types of coping strategies; proactive, anticipatory, reactive and preventive coping strategies. The concept of proactive coping was first proposed by Aspinwall and Taylor (1997), which brought about the issue of coping with future stress. Schwarzer and Taubert (2002) defined proactive coping as individual's effort to build up general resources that facilitate goal achievement and promote personal growth. The concept of proactive coping is ingrained in the Conservation of Resource Theory proposed by Hobfoll (1988).

Hobfoll (1988) argued that people work to obtain resources they do not have, to retain those resources they possess, protect resources when threatened and cultivate resources by positioning themselves so that their resources can be put to best use. According to the COR theory, stress occurs when resources are threatened or there is actual resource loss, therefore, employees endeavour to retain resources to avoid stress. Almassy, Pek, Papp and Greenglass (2014) posit that employees' personal resources assist them to effectively cope with job related stress. These personal resources may include coping strategies, personality attributes like self-efficacy and social support.

Hu and Gan (2011) aver that proactive coping takes more productive and purposeful actions and includes logical analysis and problem solving. Schwarzer (2001) suggests that proactive coping is more future oriented because employees seem to have vision of the future. He believes that the future holds opportunities, risks and job demands but these do not prove to be

threatening, instead these difficulties can be considered as challenges. Greenglass (2002) further admits that the process of coping proactively with challenging and difficult situations in the future ensures personal growth by achieving set goals. Hence Schwarzer and Knoll (2009) consider proactive coping to be goal management rather than risk management. Hu and Gan (2011) observed that proactive coping has an advantage of curbing or avoiding future stress and thus minimizing the effects of job related stress and the felling of distress by employees.

Anticipatory coping strategy according to Devonport, Biscomb and Lane (2008) involves those coping efforts intended to deal with a critical event that is certain to occur in the near future. From the viewpoint of job stressors, anticipatory coping may be an expected or anticipated response to increased workload, job promotion, organisational restructuring or change and retirement. Employees may appraise these situations as threatening, challenging or benefiting, instead of perceiving them as loss or harm. Hu and Gan (2011) affirm that anticipatory coping can be executed by way of problem-focused strategies where employees take realistic actions to solve problems that are perceived to lead to stressful experiences in the near future. Greenglass and Fiksenbaum (2009) further postulate that employees invest resources to prevent or combat the stressors at hand with the intentions of maximizing some anticipated benefits in anticipatory coping. Neupert, Ennis, Ramsey and Gall (2015) believe that anticipatory coping can reduce responsiveness to stressors by facilitating the management of known risks and capitalizing on initial coping efforts. Although not all stressful events can be anticipated or foreseen, research studies believe that anticipatory coping

efforts can maintain or improve employees' health and general well-being by reducing the impacts of stressors.

Reactive coping are those efforts directed towards the management of past or present stressful experiences, or to compensate for a loss or harm. Schwarzer (2001) propose some job experiences that can motivate reactive coping and these included demotion at work, work-related accidents and failure in goal-oriented work accomplishment or even losing one's job status. Reactive coping can be employed with the use of problem-focused, emotion-focused or support seeking related strategies. Since reactive coping strategy aims at compensation or recovery, employees need to be resilient and have optimistic belief in their capabilities to overcome setbacks (Neupert *et al.* 2015). Reactive coping strategy delimits the coping options available to the employee and incorporates stress management as opposed to stress prevention and goal management. Consequently, Devonport *et al.* (2008) suggest the use of anticipatory and preventive coping which will enable the development of strategies and resources that will facilitate the management of uncertain event in the work environment.

Preventive coping strategy as identified by Schwarzer (2001) is described as the process by which an employee builds up resources and resistance 'just in case' possible stressors occur in the near future. Preventive coping is based on employees' threat appraisal. The aim is to accumulate general resistance resources that result in less strain in the future by minimizing the severity of the impact, with less severe consequences of stress or less likely onset of stressful events in the future (Schwarzer & Taubert,

2002). Preventive coping is considered as risk management which seeks to save some resources for future needs rather than goal management.

Extant literature has identified social support as an important mechanism for coping with job stresses. Badu-Addo (2010) believes that social relationships can moderate the effects of job stress on individual's health and well-being. This is because it measures the availability of help from others, it is reasonable to assume that it constitutes a personal resource against job related stress. Sources of social support can be divided according to the degree of intimacy that a person has with the source. Badu-Addo (2010) claims that there are two sources of social support: primary and secondary sources. Primary sources of social support involves family and friends, while secondary social support are those a person has less intimate relationship with, including superiors (management) and colleagues at the workplace. Lee (2010) believes that management support and the support of colleagues at the workplace are the most important and effective sources of social support at the workplace, since these are directly related to job stress because job stress occurs at the workplace.

The work environment represents a community of workers which serves as an important source of social support for stressed workers where they could be helped to feel secured and at home. Sackey and Sanda, (2011) have posited that the levels of social support that workers receive at the workplace influences their levels of job stress, satisfaction and performance. Social support has been found to be an important coping resource that interacts with job stress to offer people a buffer from the negative effect of job stress. Claffey and Cistulli (2011) found that lack of social support for workers

engenders negative psychological states such as anxiety and hopelessness which in turn affect psychological health.

Job Stress Management

The management and avoidance of work-related stress is imperative in ensuring human resource development, and improving organisational efficiency and sustainability. Richardson and Rothstein (2008) caution that effective stress management should not be confused with the elimination of stressors. They suggest that the human conditions always included challenges and threats to its existence or to equilibrium. As observed by Hargrove, Becker and Hargrove (2015), stress is important in bringing the best in individuals in terms of creativity and innovation. Therefore successful treatment of job stress reactions should not attempt to rid individuals of stress. The objective of any stress management should be to aid the individual in the amelioration of stress by increasing their effectiveness in functioning in spite of stressful job conditions.

Stress management remains an important aspect of management function that must be given due consideration if the objectives of any organisation can be achieved. Folkman and Lazarus (1984) define stress management as formal programs that prevent stress for individuals in general. Imeokparia and Edidiagbonya (2013) describe stress management as those strategies, skills and techniques designed to put a check on individuals stress levels in an organisation. Okaka and Okosum (2009) assert that managing stress starts with identification of the sources of stress and taking charge of the environment and how to deal with the problems which are posed by the work environment.

Cooper, Dewe and O'Driscoll (2001) propose that stress management strategies are in tripartite approach. These approaches consist of primary, secondary and tertiary interventions. Primary level stress management is directed at the stress itself and it aims to prevent stress by controlling the sources of stress (Nikon, 2005). Primary level intervention is preventive in nature and is normally designed to change the existing work environment posing as threat, such as job redesign and organisational restructuring (Wade, 2002). This type of stress management intervention is the most proactive form of all the interventions. The transactional approach to stress depicts stress as the consequences of the lack of fit between the needs and demands of the individual and his or her work environment. The focus of the primary level stress management is to change the work environment to meet the needs of the individual.

Secondary level stress management is preventive and reactive. It is essentially concerned with the prompt detection and management of stress by increasing awareness and improving the stress management skills of employees through training and educational activities. Wade (2002) posits that stress education and stress management training serve a useful tool in helping employees recognise the symptoms of stress and to overcome much of the negativity associated with stress. Secondary level stress management aims to change employee's responses to stressors at the individual level, rather than changing the organisational environment or the working conditions. It is directed at the employees to equip them with coping skills to lessen the effects of stress.

Cooper and Cartwright (2001) demonstrate that stress awareness activities and skill training programs are important in extending employee's physical and psychological resources. These are useful in dealing with stressors inherent in the work environment that cannot be changed but have to be lived with. Nikon (2005) emphasizes that secondary level stress management provides employees with strategies that help them to respond to stress in a way that is not harmful to their health. The approach suggests that using techniques aimed at improving stress coping process could minimise stress.

Cooper et al. (2001) propose that tertiary level stress management is concerned with the treatment, rehabilitation and recovery process of those employees who have suffered or are suffering from serious stress related ill health as a result of work place stress. Management techniques at the tertiary level typically involve the provision of counselling services for employee problems in the work or personal life. Wade (2002) declares that the implementation of comprehensive systems and procedure to facilitate and monitor the rehabilitation and return to work of employees who have suffered a stress-related illness is another aspect of tertiary level stress management.

Tertiary stress management technique is also sometimes referred to as Employee Assistance Program (EPA). Cooper and Cartwright (2001) provide evidence that suggests that counselling is effective in improving the psychological wellbeing of employees and has considerable cost benefits to the organisation. Nikon (2005) confirms that counselling services are very effective in helping employees deal with workplace stressors that cannot be changed and non-work related stress (i.e., bereavement, marital breakdowns

etc) which can sometimes tend to spill over into work life. It however appears sceptical whether tertiary stress management will truly solve stress related problems. Cooper et al. (2001) observed that the problem with tertiary level of stress management is that they do not alleviate the originating source of stress and deal rather with managing the consequences.

As suggested by Michie (2002), effective intervention to minimise the danger of health linked with work-related stress involves both individual approach as well as organisational level interventions. She advised that individual employees have responsibilities to ensure their own health and development therefore, it is necessary for them to adopt behaviours and techniques that can help them alleviate the levels of job stress on them. At the organisational level, Michie (2002) postulates that the prevention and management of job stress should be considered as an important business because it is the organisation that creates the stress. The Chartered Institute of Personnel and Development (CIPD, 2008) avers that organisational intervention should aim at identifying if there are any 'hotspot' within the organisation, such as a team, a unit or department or a group of staff that seem to be more vulnerable to stress and show greater prevalence of stress-related problems.

One effective stress management strategy that has been recommended by psychologist in dealing with work related stresses is Employee Assistance Programmes (EPAs). The Employee Assistance Society of North America (EASNA, 2009) defines Employee Assistance Programmes as confidential personal counselling services sponsored and paid for by employers. EPAs provide professional counsellors to discuss with individual employees their

work or non-work related problems. Such problems may be emotional, financial, and legal or may be associated with alcohol or drug misuse. Gurumoorthi and Nalini (2014) noted that several other factors impede employees' ability to fully develop their potential, including family relationship problems, conflict among colleagues, child care, financial issues, depressions, bereavement and other psychological conditions. These problems drive them to resort to addictive behaviours like smoking, alcohol and drug abuse which deteriorate their development. Employee Assistance Programmes assist employees in handling these problems in a professional manner to alleviate the negative effect associated with these conditions. Employee Assistance Programmes thus create channels for linking intervention between individual and organisational level to address issues related to employee well-being.

As observed by Ntombizakithi and Pasty (2015), EAPs are very effective in combating workplace stress and enhancing employee's health. A survey by the MedStat Group, a health care research organisation in Hawaii, conducted in 2008 revealed that about 90 percent of the 8,000 employees who participated in employee assistance programmes were less affected by the negative effects of workplace stress and had improved health wellbeing as compared to those who did not participate. The study concluded that employee wellness programmes that are effectively designed and implemented can reduce ill health associated with workplace conditions and promote employee wellbeing.

Physical exercise has been identified as one of the effective ways of reducing the effect of stress on the development of human resources. Physical

exercise may be in the form of aerobic exercise, jump robes, swimming, jogging and mindful walking. There have been consistent findings that exercise has positive link with stress management. As observed by Gillan, Naquin, Zannis, Bowers, and Russell (2012) physical exercise builds resilience to stress and provides long-term effects in preventing future stress. Throne, Bartholomew, Craig and Farrar (2000) posit that moderate, regular exercise is extremely useful in improving physical health. A study conducted at Ohio State University's Institute for Behavioural Medicine Research highlights the health enhancing benefits of physical exercise. Exercise improves cholesterol levels, helps keep bones healthy reduces muscle tension, risk of hypertension, heart disease, and other stress symptoms without any side effects. Wilson-Salandy and Nies (2012) noted that exercise has an antidepressant effect as a result of the release of endorphins into the bloodstream. It improves self-esteem, lowers blood pressure, slows heart rate, improves quality of sleep, promotes weight loss and reduces anxiety and strengthens the immune system.

Human resource training presents an effective strategy in dealing with work related stress. Training aims to equip people with the specialized skills that enhance the performance of jobs. It has been well documented that lack of resources to meet job demands and unclear roles and responsibilities directly account for work related stress (Khattak *et al.*, 2013; Leung *et al.*, 2007). Providing training facilities for staff, equip them with the right resources to meet the demands of jobs and communicate goals clearly to people. Stress training interventions are strategies that are designed to communicate skills and prepare the individuals to respond more favourably to stressful situations

(Lehrer, *et al.* 2007). It enables workers to identify stressful situations and provide resources for people to be able to understand the demands and the working conditions, and help them to adopt the right attitude and behaviours which also enable them to efficiently deal with stressful circumstances with ease.

An organisation's reward systems play an important role in creating satisfaction among employees. It is on the basis of this that most researchers recommend the design of effective compensation plan that addresses equity, since it significantly affect stress, employee motivation and performance. An organisation with poor compensational planning and system will have employees leaving for better reward somewhere (Robinson & Pillemer, 2007). Employee dissatisfaction with compensation results in high stress, absenteeism and turnover. Kim and Lee (2008) advocates that employees should be given additional incentives for extra work done. However, they recommend that financial reward alone is not enough to boost employee motivation, and further argued that recognition packages are significant spheres of compensation. When good performers are recognized for their achievements, the practice instils some respect and encourages low performers to follow suit. Policies which address employee recognition will reduce stress (Memon, Panhwar & Rohra 2010).

Physical and mindful relaxation has been identified as one of the strategies in alleviating stress. For some people, relaxation means zoning out in front of a television and watching a favourite programme, this according to Varvogli and Darviri (2011) does little to solve the damaging effect related to stress. The Health and Safety Executive (2008) suggests that physical

relaxation involves setting aside 30minutes to an hour a day for a relaxation practice which include meditation and imagination. Relaxation methods are normally taught by experts and include mastering some practices that will help the body to relax, control breathing, blood pressure, heart beat and body temperature.

The Concept of Human Resource Development

As found in the literature of Human Resource Development (HRD), a lot of confusion seems to surround the concept. Many authors have conceptualised human resource development in many different ways. For instance HRD has been conceptualised as training and education, career development, organisational planning and development and a systematic development and performance of an organisation (Swanson & Holton, 2008). In an attempt to explain human resource development, many researchers have argued the conceptual and theoretical perceptive of HRD, nonetheless, a distinctive conceptual and theoretical identity has not been established (Khan, Khan & Khalid, 2012).

Human Resource Development (HRD) is regarded as a process of developing human skills, competencies, knowledge and attitude for efficient production in national and organisational settings (Armstrong, 2010). It is regarded as a framework for the expansion of human capital within an organization through the development of both the organization and the individual to achieve performance improvement. Within a national context, it becomes a strategic approach to inter sectoral linkages between health, education and employment. One of the earliest definitions of Human Resource Development was offered by Harbison and Myers (1964). They defined the

concept as ‘the process of increasing the knowledge, the skills, and the capacities of all the people in a society. In economic terms, it could be described as the accumulation of human capital and its effective investment in the development of an economy. In political terms, human resource development prepares people for adult participation in political processes, particularly as citizens in a democracy. From the social and cultural points of view, the development of human resource helps people to live fuller and richer lives, less bound by tradition. In short, the processes of human resource development ‘unlock the door to modernisation’ (Haslinda, 2009).

Human resource development has also been defined as a comprehensive learning system for the release of the organisation’s human potential, a system that includes both classroom and simulated learning experiences and experiential, on the job experiences that are necessary for the organisations’ survival (McGuire, 2014). Swanson and Holton (2008) also define human resource development as organised activities arranged within an organisation to improve performance and personal growth for the purpose of improving job, the individual as well as the organisation. Human resource development has also been defined as a set of systematic and planned activities designed by an organisation to provide its members with the necessary skills to meet current and future job demands (Werner & DeSimone, 2012). These systematic and planned activities according to Haslinda (2009) include training and development, career planning and development, performance appraisal and the management of change for organisational development.

The most widely acceptable definition of HRD, however, encompasses issues of training and development, health, nutrition, wellbeing of people,

population, employment, science and technology, cognitive capacities, abilities and capabilities of people required to perform various functions within an organisation which is associated with current and future jobs, thereby ensuring personal growth, organisational sustainability and national development (Khan *et al.*, 2012). The definition of HRD has been summarised as the process of developing and unleashing expertise for the purpose of improving individual, team and work process, and organisational system performance as well as national development. HRD activities also involve education and training that cover empowerment, awareness raising, skills enhancement, team building, community mobilization and development, organisational development, entrepreneurship development, sensitization and conscientisation, human resource planning and policies (Gibb, 2007). These attributes of HRD have made the discipline to be regarded as a multidisciplinary concept.

The historical perspective of Human Resource Development can be traced back from the 18th Century. Werner and DeSimone (2012) suggest that the origin of HRD dates back to the era of the apprenticeship training programmes in this period of history. During these times, peasant artisans were responsible for the production of basic tools and virtually all household equipment like, furniture, clothing and shoes. To meet the growing demands at the time, craftsmen needed to employ additional hands. These additional workers had to be trained and educated to be equipped with the needed skills for the performance of their jobs. Most of these peasants were trained in carpentry, masonry and in other similar trades. The apprenticeship model was also used to train physicians, educators and lawyers.

McGuire (2014) contends that the establishment of early vocational schools in the 18th century marked the beginning of human resource development. The purpose of these vocational schools was to provide occupational training to unskilled young persons who were unemployed or had criminal records. However, Haslinda (2009) argues that human resource development emerged during the era of Industrial Revolution which marked the conversion of economies from agriculture-based to industry-based. It was during this period in the 1913, when Ford Motors saw the need to increase the efficiency of its workers through training in order to produce massively in the assembling line.

Another significant event recorded by Werner and DeSimone (2012) to have contributed to the development of HRD was the outbreak of the World War I. The war brought about huge demand for military equipment which forced many factories to train their workers to retool machinery to produce military equipment in support of the War. Swanson and Holton (2008) affirm that some workers had to be trained to enable them build warships for the World War I. The rise of the Human Relations Movement, led by Mary Parker Follett and Lillian Gilbreth advocated for more humane working conditions as unskilled workers were frequently subjected to abuse and unhealthy working conditions. The Human Relations Movement threw more light on the importance of human behaviour on the job (Gibb, 2007). With the outbreak of World War II, factories were again asked to retool their machinery in support of the war. It was during this period that the federal government established the Training Within Industry (TWI). By the end of the war, the TWI programs

had trained over 23,000 instructors, awarding over 2 million certificates to 16,000 plants, unions and services (Werner & DeSimone, 2012).

Elements of Human Resource Development

According to Singh (2008), Human Resource Development is linked with the development of our personality, learning, satisfaction, happiness, love, freedom, truth, balance, fearlessness, wholesomeness and ease in a way which people can relate. In short, HRD relates to all aspects of development and progress of life. Sharif, Ahmed, & Abdullah (2013) argue that HRD emphasizes the enhancement of human capabilities, which reflect the freedom to achieve different things that are considered valuable to people. Human resource development encompasses the integration of learning and development processes, operations and relationships. Its most powerful outcomes for the business are to do with enhanced organisational effectiveness and sustainability (Armstrong, 2010).

Human Resource Development has been described as a multi-dimensional concept because of the various facets of the discipline (Swanson & Holton, 2008). Over the last two decades, discussions on HRD have centred on organisational development, training and development and career development and all of these components seek to address organisational growth issues. At the organizational level, a successful HRD program prepares the individual to undertake a higher level of work, organized learning over a given period of time, to provide the possibility of performance change. HRD is the framework that focuses on organizations' competencies, training, and developing employee, through education, to satisfy the organizations long-term needs, the individuals' career goals and employee value to their present and future

employers. Gibb (2007) establishes that HRD covers education, training and development, improving the cognitive capacities of people and enriching the capabilities of people in order for them to be proactive towards organisational and national goals. The OECD suggests that HRD encompasses educational attainment, health and population issues and a set of employment policies that provide business for workers with appropriate skills and abilities to adapt quickly to new challenges thereby fostering organisational growth and national development.

Education

Education is defined by Armstrong (2010) as the development of knowledge, values and understanding required in all aspects of life rather than knowledge and skill relating to particular areas of activity. Education is a system by which human capital of a nation is preserved and increased. From an economic point of view, higher standards in the schools are the equivalent of competitiveness internationally. Gibb (2007) posits that Education is an essential tool for human resource development because it has an impact on more than just economic growth, it also affect the development of individual and the larger society. Education is crucial to increase the productivity of people by providing them with skills they require to participate well in the economic and national development.

Alam (2007) postulates that Education contributes to individual creativity, improves participation in the economic, social and cultural roles in society. Education also improves the understanding of an individual and their respect for others, thus promoting social cohesion and material understanding. Bloom (2006) believes that Education has an impact in the improvement of

health and nutrition, technological development, democracy and equality. It also increases people's awareness of their environment. The concept of Human Capital suggests that education raises the productivity of workers and increases their earnings over their lifetime. Alam (2007) avers that Education does not only benefit those who gain it through increased income, but also helps in the overall societal development of a nation. The return on investment for the society will be a skilled workforce that will enable global competitiveness and economic growth. While the return for the individual will be an improved career path, increased earnings power and a better quality of life.

Training and Development

Armstrong (2010) identifies that Training and Development (T&D) represents the largest realm of HRD activities. Training and Development (T&D) provide opportunity for the expansion of human capabilities. Training is defined by Swanson and Holton (2008) as a planned and systematic modification of behaviour through learning events, programmes and instructions that enable individuals to achieve the level of knowledge, skill and competences needed to carry out their work effectively. Development on the other hand is seen as the growth or realisation of a person's ability or potential through the provision of leaning and educational experiences. Armstrong (2010) observes that Development is an unfolding process that enables people to progress from a present state of understanding and capability to a future state in which higher level skills, competences and knowledge are required. It does not concentrate on improving performance in the present job. It is a form

of learning activity that prepares people to exercise wider or increased responsibilities.

Training and Development are very essential to increase the productivity of people by providing them with the requisite skills to increase organisational productivity and national development. Swanson and Holton (2008) view Training and Development as a process of systematically developing work-related knowledge and expertise in people for the purpose of improving performance. Armstrong (2010) opines that, Training and Development include organisational learning, individual learning and development, on-the-job training and management development.

Health and Wellbeing

Hokayem (2010) posits that HRD is about enhancing the health and wellbeing of people to enable them to be wholesome to contribute positively to the production of goods and services for national consumption. Many people spend large part of their lives at work. It stands to reason that a healthy workforce and a supportive work environment will benefit both staff and employers. The role of health in promoting an organisations human capital is increasingly recognised. It has been suggested that fit and healthy workforce can produce high quality work, cope well with pressures and changes, and work in partnership with the organisation to achieve its goals (Greasley, Edwards, Baker-McClearn & Dale, 2012).

Blooms and Canning (2005) suggest that the health of employees should be a concern for every organisation and form part of organisational policies. Work – related stress is estimated to be the largest occupational health problem which affects human resource development. The effect of stress on

health has been documented by a number of researchers. According to Luthans, (2010) excessive job stress has been associated with the development of coronary heart diseases, certain type of cancer, and a host of other ailments including stomach ulcers, skin rashes, migraine, asthma and increased susceptibility of infections.

It has been argued that health is the most valuable possession and most precious capital of human beings (Bloom & Canning, 2003). The World Health Organisation defines health as ‘a state of complete physical, mental and social well-being and not merely the absence of diseases or infirmities’ (Tariq, & Ihtsham, 2014). Developing human resource is about ensuring good physical and mental health of people. Providing good health and health care facilities allow people to attend to work regularly, to be productive at work and to work for a longer years. Bloom and Canning (2003) argues that health is an essential element of employees’ welfare and standard of living. Sickneses and ill-health, and the risk of death are core issues in shaping human capabilities and behaviours. Health can have a significant impact on human well-being, happiness and development. Akhter and Wohab (2006) established that health and human resource development are positively related. Their assumption was that health contributes in building good human capital which also contributes in economic development.

Capabilities

Another element of human resource development as noted by Gibb (2007) is the enhancement of human capabilities. To perform the standards expected in employment, individuals and organisations require more than certain levels of knowledge and understanding; they require capabilities.

Capabilities are the practical skills or competence that people and organisation need to achieve the required performance. They are either inherent in a person or developed through practice. Capabilities are the sensible abilities involved in a work role. In order to effectively perform a job task, employees in organisation require better understanding and knowledge as well as capabilities. Nussbaum (2000) identified capabilities as the freedom and ability to transform resources into valuable activities, the ability to live a life free from diseases, including physical and mental wellbeing.

Cognitive Capacity

Cognitive capacity is identified by Gibb (2007) as an important component of human resource development that needs to be discussed. Cognitive capacity relates to the development of knowledge and understanding. These are what people gain by learning for a work role, and what they get from experiences over time while in the role. Knowledge and understanding may be the 'know how' or 'know what'. Knowledge and understanding may be manifested in simple forms, such as making sense of a message or they may require the use of analytical and higher-order neurological abilities, demonstrated in activities such as problem-solving, decision making and creativity. Cognitive capacity involves perceptions and reasoning that is necessary to process information for the acquisition of knowledge. Gibb (2007) posits that cognitive capacity is an important component of human resource development for the purpose of effective performance of job task. Armstrong (2010) recognizes that cognitive capacity is important for employees as it assist in logic and reasoning, as well as

memory and recall which are mandatory for successfully resolving workplace issues.

The way cognitive capacities are conceived reflects the way the brain is modelled. The brain involves basic parts like the cortex, which enables thinking, speech, motor control and spatial abilities. It is common to conceptualise the brain as having a division between areas specialised in processing logic, words, and numbers, and areas specialised in processing rhythm, pictures and music. Some work roles may require high levels of IQ or complex thinking skills. This is because some work is complex and requires the independent use of thinking and judgment. Other work role may require very little IQ or thinking skills. Such job roles may be fully scripted, with no requirement to do anything other than repeat a series of set behaviours or acts of communication.

Job stress and Human Resource Development

Stress is described as a demanding experience that could be positive when the level of stress is optimal or could have negative consequences with elements of fear, dread, anxiety, irritability, annoyance, anger, sadness, grief and depression when the level of demand is excessive (Lawler, 2012). As noted by Singh and Dubley (2011) job stress occurs when employees attempt to cope with their responsibilities, duties and other forms of pressures related with their jobs but encounter difficulties, apprehensions and uncertainties to manage them. Akhtar (2012) described job related stress as the harmful physical and emotional responses that arise when the demands of a job do not match the worker's abilities, resources and needs. Shuttleworth (2005) explained that stress exist when an environmental situation is perceived as

presenting demands that threatens to exceed employee's capabilities and resources in meeting them. Abbe (2008) believes that stress is an adaptive response to a conscious or unconscious threat. He agrees that stress is a result of perceived threat and not necessarily related to the environmental conditions. Thus an amount of stress that is produced by a given situation depends on one's perceptions of the situation not the situation itself.

Butt (2009), Sapra and Naati, (2013) and Hargrove et al. (2015) present an argument for the benefit of job stress on human resource development. They explained that the challenges presented by stressful working conditions should be regarded as positive since it can lead to improved human resource development. The researchers suggested that stress actually enhances employees' initiatives and creativity which also contribute to better development. The authors posit that stressful job situations encourage individual learning and human resource development. They recommended that for human resource to develop, organisations should present stressful and challenging job situations that can bring out the best in people to learn new approaches in doing things.

Notwithstanding, Luthans (2010) discovered that unceasingly stressful job conditions act as deterrent to peoples' health which negatively affects their development. He noted that excessive and unmanaged levels of stress could significantly affect human resource development in terms of health and capabilities, which can have negative outcome on organisational performance and national development. The Chartered Institute of Personnel and Development (CIPD, 2008) also affirms that prolonged exposure to stress is associated with psychological conditions such as depression as well as

physical effects such as heart diseases, back pain and headaches. The Health and Safety Executive (HSE, 2005) posits that work related stress can cause employees' health and absence problems which may also reduce individual and organisational performance. Nikon (2005) established that stress has serious health repercussion and increases individual's risk and vulnerability to psycho-physiological illness.

Many people spend large part of their lives at work. It stands to reason that a healthy workforce and a supportive work environment will benefit both staff and employers. The role of health in promoting an organisations human capital is increasingly recognised. It has been suggested that fit and healthy workforce can produce high quality work, cope well with pressures and changes, and work in partnership with the organisation to achieve its goals (Greasley, Edwards, Baker-McCleary & Dale, 2012). Blooms and Canning (2005) suggest that the health of employees should be a concern for every organisation and form part of organisational policies. Work – related stress is estimated to be the largest occupational health problem which affects human resource development. The effect of stress on health has been documented by a number of researchers. According to Luthans, (2010) excessive job stress has been associated with the development of coronary heart diseases, certain type of cancer, and a host of other ailments including stomach ulcers, skin rashes, migraine, asthma and increased susceptibility of infections.

As established by Henckens, Hermans, Pu, Joels and Fernandez (2009) the effects of stress on memory include interference with a person's capacity to encode information. They explained that during stressful situations the body reacts by secreting stress hormones into the bloodstream. This reactions cause

acute and chronic disorders which can have long term damage in certain parts of the brain. Swanson and Holton (2008) assert that human resource development is about enhancing the capabilities and knowledge of people through learning and training, Henckens et al. (2009) aver that job stress can have negative effect on memory functions and cognitive functioning of the brain which are necessary for people to learn and achieve development.

A study by Welsh (2013) discovered that job stress adversely affects intellectual functioning such as thinking, problem solving and decision making. She explained that stress decreases flexibility, making people rigid and affect people's capacity for evaluating or even considering alternative. Jones (2003) observed that stress can affect the motor activity and behaviour of people in an observable ways. In learning situations for instance, stress can cause individuals to start an activity without completing. Other stress related behaviours he identified as affecting human resource development is repetitive behaviour, where individuals unnecessarily check or learn the same thing over and over again. This behaviour can result in difficulties in maintaining concentration.

Furthermore, another aspect of human resource development believed to be affected by job stress is wellbeing. Webster dictionary defines wellbeing as the state of being happy and healthy. Some scholars have defined happiness as psychological well-being or subjective wellbeing which is the best situation and most valuable reward to human beings (Zhang & Tan, 2012; Wright, 2005). Grant, Christianson and Price (2007) classify wellbeing into three categories: psychological, physical and social. According to these scholars, psychological wellbeing includes satisfaction, self-respect, personal growth,

purpose in life, environmental mastery and autonomy. The physical aspect of wellbeing involves nourishment, shelter, health care and mobility, while the social wellbeing concerns with the participation in the community, being acceptance in public, social actualization, social contribution, social coherence and social integration.

Work on the whole has a beneficial impact on people's wellbeing. It gives the opportunities to meet people and make friends, and a means of increasing one's self-worth and of being valued by others. There is an increasing recognition that wellbeing of employees contributes to their development and has a direct impact on organisation's performance and productivity levels (Wright, 2005). In certain situations, however, work can contribute to stress and subsequently increase the problem of anxiety and depression which negatively affect wellbeing (Juniper, White & Bellamy, 2009). Zhang and Tan (2012) observed that job stress and the work environment have significant influence on people's wellbeing. They suggested that employee relationships with support and attachment between colleagues will help to promote employee social wellbeing. Grant et al. (2007) support that organisations should develop their human resources by improving on their employee wellbeing as it leads to happiness and productivity of workers

Conceptual Framework

The conceptual framework shows the connections of the variables under study. Theoretical and empirical studies have revealed that job stress may be influenced by individual demographic variables as well as organisational variables. Job stress has been hypothesized to affect human resource development in this study. Human resource development has been

measured by using a number of indicators such as, health of people, training and development, education and knowledge, career development, organisational development, population, nutrition, functioning and capabilities and creativity and innovation (Khan *et al.*, 2012). However, in this study, human resources development is conceptualised in terms of cognitive capacity, capabilities and general health and wellbeing of people (Gibb, 2008; Swanson, 2012). Luthans (2010) observed that high job stress leads to high risk of mental, psychological and physical illness. Welsh (2013) maintain that when job stress is not checked, it can lead to repetitive behaviours and lack of concentration that can impair on human resource development. Notwithstanding, Hargrove et al. (2015) argue that when job stress is low, it may lead to active learning, higher worker motivation, increased commitment and engagement and higher performance. These connections are illustrated on figure 5.

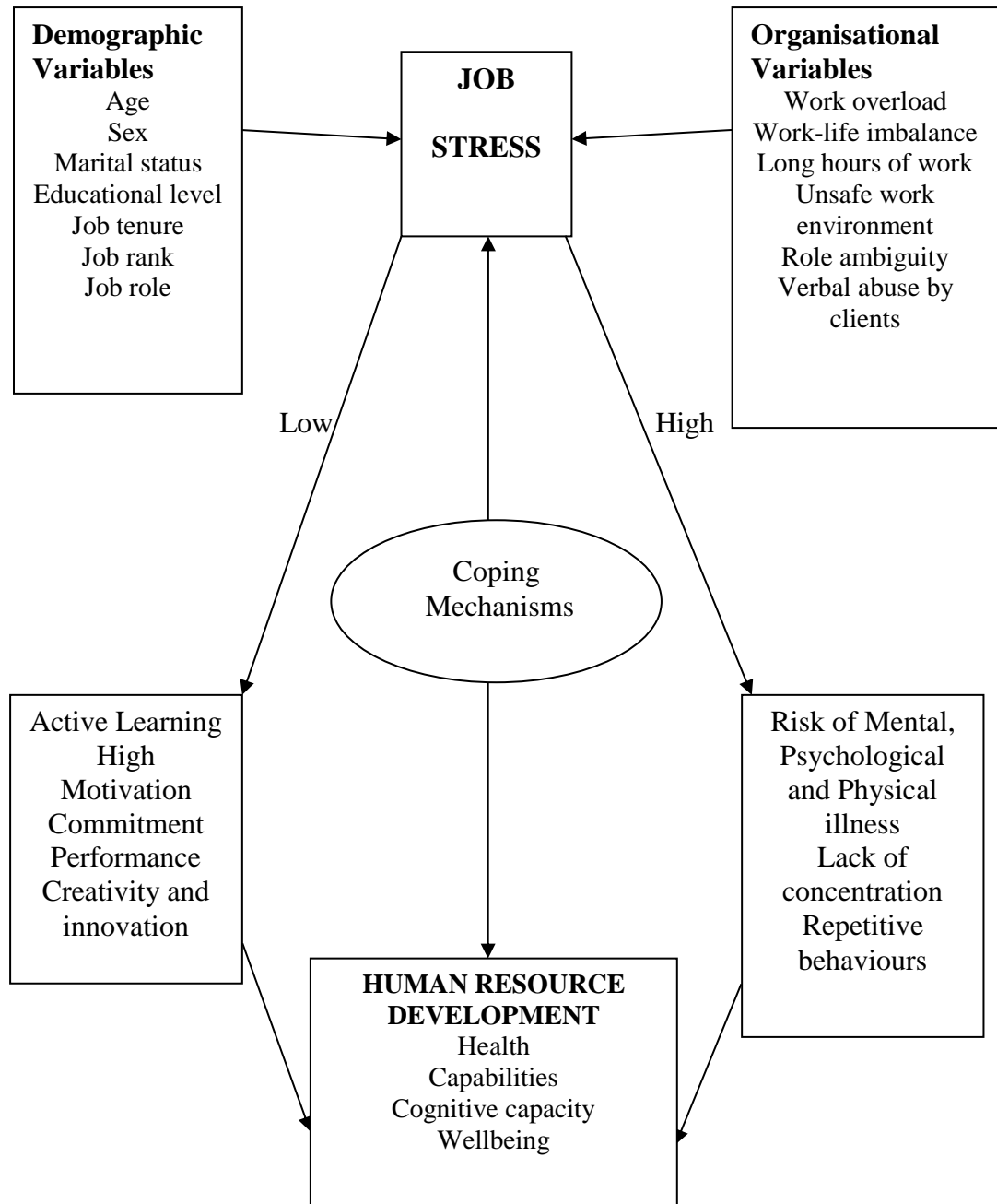


Figure 5: Conceptual Framework for Job Stress and HRD

Source: Researcher's construct (2016).

Chapter Summary

The chapter reviewed relevant theories, concepts and empirical findings on the subject matter. The review confirmed the interrelationship between the study variables. Specifically, empirical studies confirmed that individual demographic characteristics can be a source of stress to employees

in addition to organisation variables present in the work environment. The review also identified evidence of the effects of job stress on human resource development. Though some authors have argued about the positive effects of job stress on human resource development, the review indicated devastating negative consequences of stress on the development of human resources if not managed.

The chapter also brought to light, some coping strategies or mechanisms usually adopted by individuals in managing job related stress. These mechanisms were discussed and their merits and demerits outlined. Some organisational strategies for managing stress in order to counterbalance the negative effects of stress and to enhance human resource development were also examined. The chapter concluded with a conceptual framework which demonstrates the interconnections of the study variables.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

This chapter provides the methods used in the research process to obtain valid and reliable data for the study. A brief discussion on the nature and philosophical assumptions underlying this research and the different paradigms associated with scientific research is provided. The study adopted a multi-dimensional paradigm which utilises both quantitative and qualitative methods. Research design, the study area and population, data collection methods and procedures, method of data analysis and ethical issues in research are all documented in this section.

Research Philosophy

Research philosophy is concerned with views about how the world exists and how it works. It involves the acquisition of knowledge and the methods used to gain these knowledge. People's perception of reality affects how they gain knowledge of the world and how they act within it. This means that a researcher's perception of reality and how they gain knowledge will affect the way in which they conduct research. Saunders, Lewis and Thornhill(2009) and Cooper and Schindler (2006) agree that research can be influenced by positivism or interpretivism beliefs. There have been many debates as to the suitability of positivist or interpretivist in bringing out absolute reality in the social world. Consequently, researchers have proposed the use of a third paradigm which addresses the weakness of both the positivist and interpretivist methods of inquiry. This study seeks to utilise both approaches, thus adopting the pragmatist method of inquiry.

The Positivist Approach

Positivism is a branch of epistemology which assumes a scientific approach to the development of knowledge (Gray, 2013). In a positivist approach, a research is undertaken in a value free way. Quantitative techniques, which involves statistics and mathematics is the centre of positivist research and it adheres to structured research technique to uncover a single and objective reality. Positivists believe that the world is external and that there is a single objective reality to any research situation regardless of the researcher's perspective or belief (Carson et. al. 2001).

Epistemologically, positivists believe that only phenomena which are observed and measurable can be regarded as valid knowledge. The approach involves identifying a suitable research topic, constructing appropriate hypotheses and adopting a suitable research methodology. It uses deductive or theory testing through measurement of observable social realities. Carson et al. (2001) suggest that positivist researchers remain detached from the participants of the research by creating a distance, which is important in remaining emotionally neutral to make clear distinctions between reasons and emotions. They also contend that there is a clear difference between science and personal experience and fact and value judgement.

Gray (2013) posits that positivist aims to make time and context free generalisation. Gray believes that this is possible because human actions can be explained as a result of real causes that precede their behaviour. Carson et.al (2001) suggests that social phenomena and their meanings have an existence which is independent of social actors. The researcher is therefore independent and does not influence their subjects. Accordingly, the

ontological position of the positivist researchers is that of objectivism and the use of consistently rational and logical approaches to research (Carson *et. al.* 2001). In a positivist research, empirical techniques are used. The research findings are numerically presented and analysis makes use of correlation, analysis of variance and chi-square test to guarantee the robustness of the study.

The Interpretivist Approach

The term interpretivism is derived from the Greek word *hermeneuein*, which means 'to interpret'. The Chicago School of Sociology and Boas and Malinowski are often connected with the origin of interpretive approach. This paradigm developed out of the critique of positivism in the social sciences. Cohen and Crabtree (2008) argue that the approach assumes that reality is constructed subjectively through meanings and understanding developed socially and experientially. Epistemologically, the approach assumes that one cannot separate himself or herself from what he or she knows. The investigator and the object of investigation are linked such that who we are and how we understand the world is a critical part of how we understand ourselves, others and the world.

Angen (2000) claims that researchers' values are inherent in all phases of the research process. Interpretive approach heavily depends on naturalistic methods (interviewing, observation and analysis of existing text). These ensure an adequate dialogue between the readers and those with whom they interact in order to collaboratively construct a meaningful reality. According to Eriksson & Kovalainen (2008) individuals and groups make sense of situations and expectations. Meanings are therefore constructed and re-

constructed through experiences of many interpretations. It is these multiple interpretations that create social reality. Understanding what people are thinking and feeling, the manner of communication, either verbal or non-verbal are considered as important.

The Pragmatist Approach

The pragmatist adopts a pluralist position in a research study. This approach believes that it is perfectly possible to work with both the positivist philosophy and the interpretive philosophy. Gray (2013) observed that pragmatism is naturally appealing, largely because it avoids the research engaging in a pointless debate about truth and reality. In his view, it is important for a researcher to study what is of interest and of value and to employ different ways of studying a particular phenomenon and use the result in a way that can bring about positive consequences. The pragmatist assumes that individual researchers have the freedom to choose the methods, techniques and procedures that best meet their research needs and purposes.

To the pragmatist, truth is what works at a time. It is not based in duality between reality independent of the mind or within the mind (Creswell, 2009). Thus the use of more approaches provides the best understanding of a research problem. Pragmatist believes in an external world independent of the mind as well as that lodged in the mind. Thus the pragmatist opens the door to multiple methods, different worldviews and different assumptions, as well as different forms of data collection.

Research Paradigm

A research paradigm can be described as the progress of scientific practice based on people's philosophies and assumptions about the world and

the nature of knowledge. Schward (1989) as quoted in Dieronitou (2014) defines paradigm as ‘worldviews and beliefs about the nature of reality, knowledge and values’ of a researcher. According to Hussein (2009), paradigm gives directions to the researcher not only in the selection of the best methodological premise but also in the ontological and epistemological perspective. Freshwater & Cahil (2013) affirm that the two main paradigms that guide a research study are quantitative and qualitative.

The Quantitative – Qualitative Debate

Social research emanated from the natural sciences like biology, chemistry, physics and geology which is concerned with studying things which could be observed and measured in a way. These observations and measurements can be made objectively and be replicated by other researchers. This gave birth to the quantitative approach of doing research.

Quantitative Research Method

Quantitative research studies are those which employ data in the form of numbers that can be measured and analysed objectively (Gray, 2013). Tewksbury (2009) attests that quantitative research is considered to be more scientific approach in doing social science research since it comes with a more rigorous statistical analysis and interpretation of results. Marczyk, DeMatteo and Festinger (2005) confirm that the approach is an empirical form of learning because it is evidence based which relies on experiences, observations and experimentation in the acquisition of new knowledge. The method centres on testing the strength and persistence of causal relationships between distinct variables. It is well suited for testing hypotheses and theories. Turyahikayo (2014) argues that the quantitative approach is very useful

because the results of quantitative analysis can be repeated and replicated by same or other researchers under similar conditions.

Johnson and Christensen (2008) posit that the measurement of quantitative data is based on precision especially when structured and validated data collection instruments are used. The method reduces biases from both the side of the researcher and the participants making it neutral for the result to be generalised. Worrall (2000) as quoted in Tewksbury (2009) emphasizes that an outstanding quality of the quantitative method is its ability to predict correctly future events using assumptions and operationalization of specific variables. Quantitative study emphasises a large sample size and a representative set of data which make it possible to generalise the findings. The method brings objectivity in a research process (Hussein, 2009).

Critiques of the quantitative paradigm argue that the approach is too standardised to reproduce the aspects of social realities and that human beings are turned into numbers. Turyahikayo (2014) maintains that the method only answers the questions of 'what', 'how many' or 'how much' with other important questions like 'in what way', 'how' and 'why' remaining unanswered. The method may be used readily to predict variable relationship but it fails to tell or explore the reasons for such relationships. Turyahikayo (2014) argues that quantitative approach is not very comprehensive, lacks validity and ignores theory generation, and that the knowledge generated under the approach may lack pragmatic usefulness.

Hussein (2009) observes that quantitative research fails to account for people's unique abilities to interpret their experiences, construct their own meanings and act on them. The method leads to the assumption that facts are

true for all people and of all times. Gray (2013) affirms that quantitative research is not totally objective and that researchers are subjective when they make their own choice about the problem worthy to be investigated and interpretation of the results. Notwithstanding these limitations, the use of quantitative research has been prominent in social science research since the early 20th century and is concerned with discovering laws of human behaviour. The method is deemed to be more scientific than the qualitative research approach because it uses the scientific methods of inquisition just like the natural sciences which make the results more objective and realistic (Dieronitou, 2014).

Qualitative Research Method

Due to the criticisms that arose over the use of quantitative methods during the last two decades, many researchers within the social science have expressed displeasure with the use of quantitative method as a means of generating knowledge and conducting research. These researchers argue that a new paradigm is necessary to understand meaning of social constructs in the real world and to understand why people behave the way they do. Consequently, the use of qualitative research method came into being as another method in conducting social science research.

Gray (2013) maintains that qualitative research focuses on the meanings, traits and essential characteristics of events, people, experiences, interactions, cultures and their settings. The approach provides a deeper understanding of issues that is not possible with the use of statistical investigation. Qualitative method has a lot of strengths which allow many researchers in anthropology and sociology capitalise on its use. For instance, Sale, Lohfield and Brazil

(2002) argue that since researchers are mostly involved in the research process, they gain an insider's view of the situation being studied and thus providing valuable, meaningful and honest data. This allows them to find issues that are often missed by the quantitative enquiries.

It is argued that qualitative method of inquiry precludes the quantitative method because the predictions that are made by the latter are based on theoretical grounds and the testing of theoretical concepts and relationships (Kura, 2012). These theories and concepts are products of qualitative research since the method is noted for its theory generation (Butt, 2009). Qualitative research thus provides the foundation for a theoretical understanding which is demonstrated by quantitative research. This quality, according to Sale et al. (2002), should be seen as strength of the qualitative inquiry.

The qualitative approach has been flawed in many instances. For example, Sale, Lohfield and Brazil (2002) maintain that because of the subjective nature of the method and its origin in single context, it is difficult to apply conventional standards of reliability and validity. They also contend that for a research to be valid, what is being investigated should be independent from the investigator and should not be distorted by his or her intuitions, values or experiences, as is a feature of the qualitative approach. Tuli (2010) affirms that qualitative inquiries are not generally reliable because the process relies on the intuitions of the observer.

Butt (2009) contends that the contexts, situations, events, conditions and interactions cannot be replicated to any extent nor can generalisations be made to a wider context when researcher use qualitative method of inquiry. Phillips and Stewarski (2008) consent that the method is time consuming because it

takes a longer time to collect data, analyse and interpret the results. They also argue that issues of anonymity and confidentiality present problems and that the presence of the researcher has a profound effect on the subjects of study. In spite of these limitations, the method is still seen as best alternative to other research methods especially when the study is an exploratory or a descriptive one. The nature of the problem to be investigated and the philosophical underpinnings will determine the best method to use that is either qualitative or quantitative.

The Integrated or Mixed Methods

The limitations of both the quantitative and the qualitative paradigms of research inquiries to study complex problems gave birth to a third paradigm which seeks to neutralise the flaws of both approaches. This paradigm seeks to integrate qualitative and quantitative methods in a single study of a particular phenomenon. Creswell (2009) defines a mixed research design as ‘a procedure for collecting, analysing and mixing both quantitative and qualitative research methods in a single study to understand a research problem’. Molina-Azorin and Cameron (2010) affirm that mixed method approach is characterised by methodological pluralism which provides more understanding to complex problems and gives results which is broader in perspective than a result provided by a single method.

Kura (2012) suggests that researchers gain more insights in the study of problem when they combine qualitative and quantitative methods. The combination provides a profound understanding of a research problem and assists in tackling them comprehensively and adequately. Sale, Lohfield and Brazil (2002) argue that the complexity of some social problems require the

use of a combined approach in investigating them. Creswell (2009) affirms that quantitative and qualitative methods should be seen as a continuum of research and that specific method should be chosen depending on the research objectives. He emphasised that while quantitative method seeks to find the ‘what’ of a problem, the qualitative finds out the ‘how’ of the problem. The mixed method seeks out to explain how the quantitative findings explain qualitative results.

Some researchers believe that the two paradigms can be combined since they all share the same logic and that the same values and inferences apply to all. Sale et al. (2002) posit that ‘the two paradigms share the tenets of theory-ladenness of fact, fallibility of knowledge, determination of theory by fact and value laden process of inquiry’. Creswell & Plato-Clark (2007) believe that mixed method is best suited when one method is used as a complementary of the other. In that case the results obtained from a quantitative study will be confirmed by a qualitative approach and vice versa. However, Hussein (2009) advises that the aspect of a phenomenon to be studied with each method should be clearly spelt out.

The use of the different paradigms in the same study had generated great deal of debate which is termed by Sale et al. (2002) as the ‘Paradigm War’ or ‘Paradigm Incompatibility’. Armitage (2007) argues that the two paradigms differ both epistemologically and ontologically. Though this assertion has been disputed by Dieronitou (2014) who emphasises that the use of triangulation offsets this limitation of the paradigm incompatibility, Hussein (2009) notes that the use of triangulation in mixed method is only a means of ensuring validity. Molina-Azorin & Cameron (2010) point out that the use of

the integrated method is cumbersome because it requires a great deal of resources in terms of time and finances. They state that the time involved in collecting data, analysing and interpreting result for both methods is lengthy coupled with the financial responsibilities involved.

Moreover, the method demands the investigator to develop a broader set of techniques that extend both the qualitative and quantitative. If quantitative and qualitative approaches are used to study different aspect of a particular phenomenon, then the method cannot be declared to enrich the same phenomenon under study. Sale et al. (2002) emphasise that there will be a loss of information with the use of the mixed method when the results of both methods are synchronised, which will lead to selective search for data. Thus the use of the mixed method diminishes the value of both methods. In spite of the limitations of the integrated approach of inquiry, this study deems it appropriate to employ the approach.

Rationale for the preference of the Mixed Approach

Although positivist approach is seem to lend itself in this study because the literature of job stress upon which this study is based is predicted on theoretical models. This study employed the use of statistical and rigorous procedures in analysing the data which are collected through quantitative means. The study again described and explained the variables causing job stress and the effects of job stress on staff which is central to the positivist approach.

The researcher was detached from the participants and the results are objective and free from the researcher's influences or intuitions. This study used formalised techniques to discover and measure independent facts about

single reality which is presumed to exist. The study believed that job stress of staff could be defined objectively based on established theoretical framework, precise measurement, and structured and validated data collection instrument to analyse it upon which inferences can be made from the findings. This research study finally sought to statistically report on regression, comparisons of means, t-test and statistical significance of findings which are the basic characteristics of the positivist approach.

However, the complexity of this research problem calls for answers beyond simple numbers in a quantitative sense and a simple narrative in a qualitative study. Policy makers, practitioners and other audience need multiple forms of evidence to document and inform the research problem. This called for a combined approach in this study. A combination of both forms of data in this study provided the most complete analysis of the research problem. The range of possible benefits is obtained with the use of a carefully designed mixed method which has been conceptualised by a number of studies. The validity of the research results were strengthened by using more than one method (Creswell, 2006).

Johnson, Onwuegbezie and Turner (2007) suggest that in a mixed research, a researcher may collect data using quantitative experimental procedures and then follows up with interviews with few individuals to help find explanation for the scores on the experimental outcomes. Moreover, Creswell & Plato-Clark (2007) believe that mixed method is best suited when one method is used as a complementary of the other. In that case the results obtained from the quantitative study will be confirmed by a qualitative approach. This study collected quantitative data by way of survey

questionnaire and followed up with face-to-face indepth interview from 10 key informants to help understand and explain the scores from the quantitative results.

Study Design

The sequential mixed method approach was adopted for the study. Quantitative data was collected and analysed. In order to validate the scores from the quantitative data, the researcher followed up with a structured indepth interviews of key informants who were purposively selected because of their positions and experiences. This was to ensure that there were no variations in the results of the findings which also sought to triangulate the data. The study was descriptive and cross-sectional in nature .The researcher described the state of affairs of the study population without manipulating or influencing the results. A cross-sectional study is a predictive study that describes the characteristics of a population at a point in time. Data collection and analysis were done at one time and inferences about the population were made. The strategy for collecting quantitative data was a survey. This strategy was adopted because it allowed for the collection of a large amount of data from the study population. Cooper and Schindler (2006) suggested that surveys are good tools for obtaining information on a wide range of topics and are relatively inexpensive. It enabled gathering of descriptive data and covered a wide range of topics. Even though critics maintain that the method may lead to biased reporting and that the survey method may not provide adequate information on a context. Saunders et al. (2009) recommended this strategy because the method allows researchers to collect quantitative data which are analysed using inferential statistics.

Study Institution

The College of Distance Education, University of Cape Coast is the selected institution for this study. The College was established in 1997 as the Centre for Continuing Education, with an initial student population of 750 to train teachers and other professionals who could not obtain admission to the conventional university due to inadequate physical facilities. Primarily, the college was established to provide opportunities for teachers and other professionals to pursue higher education in the comfort of their homes for professional development in the Ghana Education Service and the private schools. Additionally, the programme was intended to train high calibre personnel for national development, develop professional competencies of serving teachers and personnel of the Ghana Education Service as well as accounting and secretarial personnel in the civil and public services, commerce, and industry through distance education. It also aimed at providing opportunities for applicants who though qualify for admission, but fail to enter the mainstream university due to inadequate physical facilities.

By 2001, the centre had introduced a three-year diploma in Basic Education (DBE) and by 2004 had student population of 8,336 at the 18 study centres across the country (Brown, 2004). In the 2005-2006 academic year, the college added other programmes to include bachelor programmes in Management Studies, Commerce and Education (Ossei-Anto, 2007). Since 2008, the Centre for Continuing Education has been the leading distance education institution in Ghana, and by 2014/2015 students' population has risen to 35,362 (SRMIS, 2015) with full time staff of 223.

The college runs five diploma programmes, including; Basic Education, Educational Psychology, Maths and Science Education, Management Studies and Commerce, and six degree programmes; Management Studies, Commerce, Marketing, Educational Psychology, Maths and Science Education and Basic Education. The Centre for Continuing Education was upgraded to College of Distance Education on August 1st, 2014. During the 2014/2015 academic year, the College commenced postgraduate programmes in Business, which included Master of Commerce and Master of Business Administration in Human Resource Management, Accounting, Marketing and Finance. The college has four departments namely; Maths and Science Education, Quality Assurance and Evaluation, Education Studies and Business Studies, and it is an affiliate member of the West African Distance Education Association and maintains an active relationship with other universities in Ghana and the Simon Fraser University in Canada.

The college by 2015/2016 academic year, had extended its coverage and added additional study centres, making the total number to be 76 in the 10 administrative regions across the country with students' population of about 42,000 (SRMIS, 2016). The major function of the study centres is to serve as an avenue for interaction with staff and students, tutoring and counselling, providing physical facilities such as, classrooms, laboratories and libraries to assist and support students (UCC Prospectus, 2014-2015). Additionally, students are provided with print media in the form of modules which are written by lecturers of the University of Cape Coast. The major course of action of the distance education has been face-to-face meetings organised weekly in all the seventy-six study centres. Officials from the main university

and staff from the college visit the centres weekly to monitor the face-to-face sessions and to provide counselling to students.

Target Population

The College of Distance Education has a wide range of staff base. The college has 2,086 course tutors who are on part-time to facilitate teaching and learning at the various study centres of the college (CoDE Staff Records, 2015). These course tutors only work with the college on weekends where they act as course facilitators. Apart from these, the college has a full-time staff base of 223 who are made up of senior members, senior staff and junior staff. The categories of staff comprise of lecturers, administrators, research assistants, clerks, technicians, drivers, messengers and cleaners (CoDE Staff Records, 2015). The study covered only full-time staff of the college. The reason for excluding the part-time course tutors were that the tutors work only on weekends and their job stress may not only come from the college. However, the 223 full time staff work with the college from Monday to Sunday; therefore, their job stress is presumed to have largely emanated from the working environment of the college. Table 1 captures the details of the study population as the time of the study.

Table 1: *Distribution of the study population*

Designation	Frequency	Percent
Senior Members	46	20.62
Senior staff	121	54.26
Junior staff	56	25.12
Total	223	100

Source: CoDE Staff records (2016)

Sample and Sampling Procedures

All the elements in the target population were used as the study population. The census approach was used because the study aimed to get the views of all the members in the population. Another reason for the use of the census approach was because the population was not large enough for some elements to be sampled. However, the survey was conducted for all staff except the four heads of department and six members of the advisory board who were sampled as key informants. One benefit of the approach was that it allowed the researcher to capture everybody's view and experiences within the population. The method has been criticised as not being appropriate for or applicable in social research because it is costly and time consuming. Nonetheless, Kothari (2011) suggests that the census method is applicable in research situations where the population is not large enough to be sampled, where there is enough time to collect data and where there is the need for high accuracy. Jupp (2006) also recommend the census approach in social research situations where the researcher wants to collect data from every member of the population being studied rather than choosing a sample.

Data Collection Instruments

Two data collection instruments were used to collect quantitative and qualitative data. For the quantitative aspect, data was collected through a survey with the use of a questionnaire. The questionnaire mainly comprised of Job Stress Inventory items developed by Osipow and Davis (1998). Osipow and Davis's Job Stress Inventory questionnaire have widely been used in many studies in Africa and in Ghana (Affum-Osei et al., 2014; Dapaah, 2014; Roberts, 2014, Sackey et al., 2011 and Teye, 2011). The Job Stress Inventory

questionnaire is a psychometrically validated stress questionnaire developed on a broad theoretical base with normative data. It is empirically based, standardised and lends itself to a variety of workplace applications. It can be used in a broad spectrum of organisations and for a wide range of job levels. According to the Society for Human Resource Management (2008), the instrument can be customised to support use in a wide variety of group survey and research application. The questionnaire assessed three interrelated dimensions in experiencing job stress, psychological strain and coping mechanisms. It was designed to develop an integrated theoretical model to link these three dimensions and to provide a generic job stress measure that would apply across different organisational levels and environments. The Job Stress Inventory is also suitable for use as a repeated measure in order to assess changes in perceived job stress overtime.

The Job Stress Inventory was originally designed to be an ordinal scale, taking the form of ‘strongly agree to strongly disagree’. However, researchers like Ferrando (2003) and Jamieson (2004) have argued that the distance between items categories in Likert scale are not equal and that likert scale aggravate the use of arithmetic mean to represent the intangible variables. Aquinus, Piere and Culpepper (2009) noted that the mean and standard deviation cannot be analysed appropriately with Likert scale. To be able to do this, they recommend the use of interval scale and ratio scale data to be most appropriate. Consequently, to allow for more rigorous statistical operations like test of means, t-test and regression, the instrument was converted from ordinal to interval scale. This constitutes one of the major strengths in this study since it utilises a higher level of measurement instead of the ordinal

scales mostly used by many studies of this nature, thus adding a methodological contribution to knowledge.

The Job Stress Inventory (JSI) was customised to make it more applicable and to be able to measure aspects like the physical demands of the job, uncertainty, time pressure and overall stress levels. The job stress inventory composed of 20 items with a 6-point interval. The range of score was 0 to 120. Based on the total score, the levels of stress were computed as follows:

Category	Range
0 – 40	low stress
41 – 60	moderate stress
61 – 80	high stress
81 – 100	very high stress
101 – 120	danger*

The scores are interpreted such that the higher the score, the greater the perceived level of stressors. The questionnaire was composed of 4 sections. Section A assessed the nature of respondents' working environment and their stress levels, Section B asked questions on respondent's coping mechanisms and institutional stress management strategies. Section C asked questions on human resource development issues in relation to respondents' job environment and the last, Section D dealt with the demographic characteristic of the respondents, including (age, sex, level of education, marital status and level of experience and job tenure).

This study also believed that participants' perspectives were meaningful and could be made explicit and that their perceptions affected the success of

this research. As a result, interview guide was used to collect qualitative data. A face-to-face indepth interview was conducted on one-on-one basis with four heads of department and six members of the advisory committee who were purposively selected because of their position and experiences. The face-to-face in-depth interview was used because of the numerous advantages it has over other forms of qualitative data collection tools. For instance face-to-face interview has an advantage of creating rapport and allowing interviewers to observe participants' non-verbal communication and gestures (Saunders et al, 2009). The indepth interview enabled the researcher to explain and clarify questions and thus increased the likelihood of useful responses (Mugenda & Mugenda, 2003) for the study. It also helped to take advantage of social cues like voice, intonation and body language to get extra information to compliment participants' verbal responses (Kombo & Trompo, 2009). The interviews dealt with issues like the description of work environment, staffs' complaints about the work environment, stress management strategies put in place to help reduce job related stress and the perceived effects of job stress on the components of human resource development.

Measurement of Study Variables

Human resource development (HRD) being the dependent variable of this study was treated as a latent variable which could not be measured directly, like most variables in the social sciences. However, the review of literature indicated varied components as representing human resource development. Some of these components including health, wellbeing, capabilities and cognitive capacity were measured on an interval scale to represent HRD. An exploratory factor analysis was conducted using

orthogonal varimax rotation to find out if these different variables accounted for HRD. In other words, the PCA was done to assess whether these variables could measure HRD. The total variance explained was 67.23%, indicating that these variables explained or accounted for HRD; therefore, the study accepted these variables as right measurement for HRD.

The Kaiser – Meyer – Olkin (KMO) statistics was computed with a value of 0.842 which was significant and above the generally accepted value of 0.6. The Bartlette's Test of Sphericity Values was also significant at a $p = .000$. Therefore, using the PCA was appropriate for this operation. Job stress was measured using the Job Stress Inventory developed by Osipow (1998). Coping Mechanism was also measured using Job Stress Coping Inventory which formed part of the Job Stress Inventory Questionnaire. Institutional stress management strategies were measured using a scale of 0 to 5, with 0 indicating no agreement and 5 indicating highest agreement.

Validity and Reliability

Patton (2002) observes that validity and reliability are two factors which any researcher should be concerned about while designing a study, analyzing results and judging the quality of the study. Healy and Perry (2000) noted that validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. It estimates how accurately the data obtained in the study represents a given variable or construct in the study. To ensure validity a comprehensive literature was reviewed which helped to mould this study on sound theoretical grounds (Mugenda & Mugenda, 2003). The questionnaire was given to other experts in research to seek their opinion about the adequacy and representativeness of the

instrument to ensure it covered all the variables being measured as a way of eliminating content validity. A preliminary draft was given to three PhD students and two MPhil students to ascertain the clarity and meaningfulness of the questions as a measure of ensuring face validity. The study ensured the reduction of construct validity by deriving the research variables from existing theoretical frameworks. Additionally, the combined methods helped in data triangulation which made the results a valid one.

Pre-Testing of Questionnaire

As suggested by Saunders et al. (2009) it is important as a matter of reliability and validity, to check that the data collection instrument is pre-tested before the final administration. Based on a suggestion by (Saunders *et al.*, 2009), who assert that a minimum of 20 members for pre-testing is adequate, the instrument was pre-tested to a sample of 35 staff at the Department of Distance Education, University of Education, Winneba. Each of the respondents was told the purpose of the pre-test and was assured anonymity and confidentiality before they answered the questionnaire. Some of the questions that were ambiguous and unclear were clarified. And some were totally removed from the test items.

Test of reliability and internal consistency

The pre-tested instrument was subjected to reliability and internally consistency tests using Cronbach's Alpha Reliability Co-efficient. Table 2 shows the results of the reliability analysis.

Table 2: *Cronbach's Alpha Reliability Test*

Variable	Number of Items	Alpha Co-efficient
Stress indicators	20	.816
Stress management strategies	10	.630
Job stress coping mechanism	10	.651
Human resource development	25	.860
Summary of All Items excluding bio-data	65	.870

Source: Field survey (2016)

Stress indicators had a total of 20 items and the co-efficient of reliability was 0.816. Stress management strategies had 10 items with alpha co-efficient value of 0.630. When 10 items measuring individual coping mechanism were tested for reliability and internal consistency, a Cronbach's alpha value of 0.651 was yielded. Finally, 25 items pertaining to human resource development yielded an alpha value of 0.860. When all the items were combined, the reliability analysis produced an alpha value of 0.870. The generally acceptable alpha co-efficient values range from 0.7 to 1 indicating a higher reliability and internal consistency.

However, Field (2009) points out that unlike scientific experiments which can yield values between 0.7 and 1 when dealing with psychological construct, values between 0.7 and 0.4 can realistically be accepted because of the diversity of the constructs being measured. This assertion by Field (2009) indicates that though items pertaining to stress management strategies and

coping mechanisms had values below 0.7, they were accepted and considered as being reliable and having internal consistency. The study further tested for the quality of each item to be included in the research by the use of Factor Analysis (Principal Component Analysis). Items with factor loadings less than 0.5 were removed from the research instrument because such items were not able to explain much variance in the test variables (Field 2009; Gaur & Guar, 2009; Pallant, 2005).

Fieldwork

The fieldwork was divided into two parts. The first part began on 23rd November, 2016 to 14th December 2016 where quantitative data was collected with the help of two research assistants who helped with the distribution and collection of the questionnaires. Quantitative data collection spanned for a period of three weeks. After the processing and analysis of the quantitative data, qualitative data in the form of indepth face to face interviews were conducted to help explain the scores of the quantitative results. The second part of data collection took place from 13th to 17th March, 2017 where qualitative data was collected. Though a lot of challenges are identified to be associated with data collection (access and acceptance by participants, lack of interest by participants, untimely response by participants, etc), the investigator found that she had an enhanced sense of trust and relational responsibility which increased the rapport between the research participants and herself.

The second phase concerned with the indepth interviews which also lasted for five days as the researcher was able to interview at least three key informants within a day. Many of the interviewees revealed personal

information based partly on the empathy derived from shared experiences, although, some concealed sensitive information which might have been inappropriate for the researcher as a member of staff to know. Apart from the fact that most of the junior staff refused to take part in the study probably because they did not really understand the import of the study, the researcher did not encounter any peculiar problem associated with data collection.

Ethical Considerations

The methods of the study were subjected to ethical review by the Institutional Review Board (IRB) of the University of Cape Coast. Ethical clearance was sought and approval given before data collection began. Issues relating to the ethical conduct of research such as informed consent, confidentiality, privacy and anonymity were upheld in this study. The first step in ensuring ethical issues with respect to data collection was a brief meeting with the target population. The researcher had a meeting with the participants and discussed the essence of the study with them. This created an opportunity for the participants to ask questions about the research instruments. The researcher took time to explain the instruments and all the questions raised by the participants. The researcher had a meeting with the participants and discussed the essence of the study with them. This created an opportunity for the participants to ask questions about the research instruments. The researcher took time to explain the instruments and all that data collected was going to be used purely for academic purpose as a requirement for the award of a degree in Doctor of Philosophy (PhD). It was explained that both qualitative data were going to be collected and reasons were given as to who will take part in the qualitative interviews and the survey questionnaire.

Participants for the qualitative study were told how the interviews were going to take place, the nature of questions to be asked, the places for the interview and the duration for the sessions. This was done to help participants make informed decisions as to whether to partake in the study or not. Those who were considered for the survey questionnaire were given enough time to go through the instruments and ask questions that bothered them. Questions raised included the number of the questions to be answered and the span of data collection. Initially, the researcher allowed a span of 2 weeks for the completion of the questionnaire; however, upon request of the participants, the span was extended to 3 weeks to eliminate any undue pressure on participants. Participants were also made to understand that at any point in time, they may withdraw from participating in the study.

Data Processing and Analysis

According to Sarandakos (1998) the analysis of data allows the researcher to organize data collected during the study in order to assess and evaluate the findings and to arrive at some valid, reasonable and relevant conclusion. Before the analysis of the field data, data preparation was done to ensure accuracy and completeness. Data preparation included coding returned questionnaire, checking and examining outliers. The first step in ensuring accurate and complete data from the field was editing. The researcher examined the responses to the questionnaire to detect errors. This was done at the end of the survey. After data was edited, it was then coded using responses from the questionnaire into template which were assigned numeric values and entered into the SPSS statistical software for processing by the researcher. Missing values were cross checked with the original

questionnaire and those which had more than 2 percent of missing cases were deleted.

The quantitative data was analyzed based on a default alpha level of 5 percent (0.05) with a confidence interval of 95 percent. All statistical decisions were made based on this alpha level. The analysis of the quantitative data was based on the objectives and the conceptual framework of the study. The data was mainly analysed using tables to show the frequency and percentage distributions of the relevant variables. The chi-square statistics test was employed to explore the associations between stress levels of staff and their demographic characterises. The study made use of t-statistics to compare differences in mean values of the variables. An Exploratory Factor Analysis (Principal Component Analysis) was used to identify job stress coping mechanism and job stress factors. Finally, a simple regression model was adopted to examine the effects of job stress on the components of human resource development. Table 3 illustrates the summary of data analysis techniques.

Table 3: *Data Analysis Techniques*

Research Objectives	Research Question	Statistical Approach	Statistical Model
Objectives 1 Explore the sources of job stress at the College of Distance Education	What are the sources of job stress at the college of distance education?	Descriptive Statistics, A single sample t-tests	Mean, Median, Standard deviation, Interquartiles and Skewness. T- Statistics
Objective 2	What are the perceptions of the work environment and the levels of job stress in relation to staff	Descriptive Statistics, Pearson Chi-Square Cramer's V statistics	Mean, Median, Standard deviation, Interquartiles and Skewness. Chi-Square coefficient

	demographic variables?		Cramer's V coefficient
Objective 3 Analyse the effect of job stress on some components of HRD (general health, wellbeing, capabilities and cognitive capacity)	What are the effect of job stress on general health, wellbeing, capabilities and cognitive capacity of staff?	Descriptive Statistics, Exploratory Factor Analysis Simple Regression Analysis	Mean, Median, Standard deviation, Interquartiles and Skewness. Regression coefficient
Objective 4 Investigate the job stress coping strategies of CoDE's staff	How do CoDE's staff cope with job related stress?	Descriptive Statistics, Principal Component Analysis	Mean, Median, Standard deviation, Interquartiles and Skewness. Commonalities and Eigenvalues.

Source: Researcher's construct (2017).

The qualitative aspects of the data were transcribed using the exact words as said by the interviewees, and these were analysed with respect to the conceptual themes of the study. The labels for the interviews were coded as 'Interviewee 1, 2, 3,...' without the mention of anyone's name or initials. This was to ensure anonymity and confidentiality to uphold the ethical values of the study. Although body language which could affect the meanings of what was being said were observed in the interviews, the study however did not include it in the analysis because it did not form part of the methodology.

Summary of research methodology

The chapter discussed the research process adopted for the study. The various research philosophies and the competing paradigms were examined. The research design guiding the study was also presented. The chapter gave a description of the study population and discussed data collection methods,

research instruments and analytical techniques used in the research process. Issues with validity and reliability, and ethical considerations were highlighted. Descriptions of variables and their measurement were also explained.

CHAPTER FOUR

JOB STRESS AT THE COLLEGE OF DISTANCE EDUCATION

Introduction

The chapter presents the response rate and the profile of respondents. Details of background characteristics examined included the ages, sex, marital status, level of education, job ranks, job roles and job tenure of respondents. Also discussed in this chapter are the factors that contribute to job stress at the college.

Response Rate and Profile of respondents

A total of 213 questionnaires were distributed to the study population. Out of this, 171 were completed and returned. The discussion is therefore based on a response rate of 80 percent. This response rate was considered adequate enough to base inferences on. In the view of Baruch (1999) for most studies involving academic organisations, a response rate of approximately 35 percent is reasonable. The background characteristics of respondents examined were age, sex, and marital status. Aside from these demographics, the study also examined the level of education, job designation and role as well as the number of years that respondents had worked at the study organisation. The background characteristics of respondents are discussed using mainly descriptive statistics.

The first background variable examined was the age of respondents. While the oldest respondent was 57 years, the youngest was 24 years. The distribution of the age of respondents was positively skewed (skewness = 0.637) indicating that the majority of the respondents were younger than the mean age of 36.31 years. The median age was 36 years with a quartile

deviation of 5.5 years. Further analysis of the age distribution showed that while most (45.6%) of respondents were in the 31 – 40 age bracket only 6.5 percent were in the 51 – 60 age bracket. The active age bracket is considered to be between 18 to 45 years. This probably explains why there are so many people within this age bracket, as compared to those between 51 and 60 years. The rest of the distribution of the ages of respondents across the various age brackets is captured in Table 4.

Table 4: *Age distribution of Respondents*

Age	Frequency	Percent
21 – 30	49	28.6
31 – 40	78	45.6
41 – 50	33	19.3
51 - 60	11	6.5
Total	171	100.0

Source: Field survey (2017)

The next background variable examined is sex of respondents. This background information was necessary because according to Aftab and Khartoon (2013) and Bashir et al. (2013) stress levels among males and females inform their coping strategies. Out of the 171 respondents, 55.6 of them were males, the rest (44.4%) were females. The sex distribution of the respondents is a reflection of the proportions of males and females in the University of Cape Coast as the majority of the workers in the university are males.

Aside from age and sex, the study also analysed the marital status of the respondents. The marital status of people play a role in their stress responses and coping style, as literature had established (Nagina, 2009; Nagaraju & Nandini, 2013; Osmany & Khan, 2013). Out of the 171 respondents only 2.9 percent of them were separated as compared to the majority (62%) of them that were married (Table 5).

Table 5: *Marital status Respondents*

Marital status	Frequency	Percent
Married	106	62.0
Single	60	35.1
Separated	5	2.9
Total	171	100.0

Source: Field survey (2017)

The study also examined the educational level of respondents as part of the background information because empirical literature suggests that the level of education affects a person's stress level and responses. Evidence from the study showed that there were five PhD holders while most (43.3%) of the respondents either had a first degree or Masters Degree (29.8%). Those educational level classified under 'others' (6.4%) either had the middle school leaving certificate or basic education. Table 6 presents details of respondents' level of education.

Table 6: *Level of Education of Respondents*

Education Level	Frequency	Percent
Secondary	21	12.3
Diploma	9	5.3
1 st Degree	74	43.3
Masters	51	29.8
PhD	5	2.9
Others	11	6.4
Total	171	100

Source: Field survey (2017)

The findings from the study showed that the respondents belonged to various categories of ranks within the college. While the majority (64.3%) of the respondents were senior staff, the rest of the job ranks were almost evenly distributed across junior staff (18.2%) and senior members (17.5%) as depicted in Table 7. The distribution of the respondents by ranks is consistent with the rank structure of the University of Cape Coast which is dominated by senior staff. This is partly due to the entry requirement (first degree).

Table 7: *Respondents' Job rank*

Job rank	Frequency	Percentage (%)
Junior staff	31	18.2
Senior staff	110	64.3
Senior member	30	17.5
Total	171	100

Source: Field survey (2017)

It also becomes necessary to examine the various job roles of respondents as empirical literature suggests that some job roles are more demanding than others and could explain how people are affected by stress. Out of the 171 respondents about 53 percent of them were administrators as compared to lecturers (15.2%) and clerks (13.5%). Some of the respondents were messenger cleaners (9.4%), technicians (5.3%) and drivers (4.0%) (Table 8). The distribution of the job roles of the respondents was a representation of all the various roles within the college.

Table 8: *Respondents' job roles*

Job Role	Frequency	Percent
Lecturers	26	15.2
Administrators	90	52.6
Drivers	7	4.0
Clerks	23	13.5
Technicians	9	5.3
Messengers / Cleaners	16	9.4
Total	171	100.0

Source: Field survey (2017)

The final background characteristic that the study examines is the number of years that respondents had worked at the study college. This background information is deemed necessary because research has shown that the longer people stay on a job, the less stressful they become as people tend to master their job and gain more experience. While the minimum number of years of tenure was one, the maximum was 16years. The median years of job tenure was four (mean = 4.26, skewness = 1.57) with a quartile deviation of

one year. Further analysis of the years of tenure showed that the majority (76.6%) had worked for between one and five years. The rest of the details are captured in Table 9.

Table 9: *Respondents' job tenure*

Job tenure (Years)	Frequency	Percent
1 – 5	131	76.6
6 – 10	36	21.0
11 – 15	3	1.8
16 - 20		0.6
Total	171	100.0

Source: Field survey (2017).

The findings from Table 9 are consistent with the staff tenure policy of non-academic staff of the University of Cape Coast. According to the policy, non-academic staff, do not spend more than five years in a particular department; staff are rotated through the various departments of the university to acquire certain knowledge from the other departments. Moreover, the College of Distance Education is one of the youngest colleges within the University of Cape Coast. That probably explains why a greater number of workers have not spent more than 10years working with the college.

Job stress factors of respondents

Many studies have examined the factors that bring about job related stress. In most of these studies, researchers have reported that organisational factors are the most relevant factors that contribute to job stress (Kula, 2011; Luthans, 2010; & Butt, 2009). A descriptive statistics was employed to explore some organisational variables that contribute to job stress. Evidence from the literature suggests that a mean stress score of 3.0 or more is an

indication that the factor is responsible for causing job stress (Yousef, 2002; Jovanovic et al. 2006; Coetzee & de Villiers, 2010; Mate, 2014; Owusu & Tawiah, 2014; Yeboah et al. 2014). The mean scores of the stress factors were compared with the standard of 3.0 and the difference tested using the one sample t-test. Table 10 illustrates these variables.

The first stress factor that the study examined was work demand. Work demand involves the physical, psychological, social or organisational aspects of the job that require continuous physical, mental and psychological effort. Work demand may lead to positive as well as negative outcomes depending on the demand itself and on the individual's ability to cope. The minimum work demand score was one while the maximum was six (Table 10). The distribution of work demand was negatively skewed (skewness = -0.488), an indication that the work demand score for the majority of the respondents was greater than the mean score of 4.51. The median work demand score was 5.00 with a quartile deviation of 1. Even though the distribution was skewed, a sample size of 171 is large enough for the assumption of normality to be ignored. Given a test value of 3, the difference in means was found to be significant (Mean difference = 1.51, $t = 16.118$, $p\text{-value} = 0.000$) (Table 11). This means that work demand is a contributory factor to stress. This finding support the findings of Teye (2010), whose findings suggested that work demand contributed significantly to job stress for nurses at the Tema Metropolitan Hospital and also confirms that of Vanishree (2014).

The second factor examined was work overload. Work overload refers to situations where there are high levels of time pressure, unpredictable hours of work, continually being subjected to deadlines and inflexible work

schedules. Work overload scores varied from a minimum of zero to a maximum of six. The median work overload score was four (mean = 3.87, skewness = -0.071) with a quartile deviation of one. Similar to the distribution of work demand, the work overload score for the majority of the respondents was more than the mean work overloads score of 3.87. It became evident (Table 11) that work overload is major source of stress for the respondents as the mean work overload score was significantly higher than the standard of 3.0 (Mean difference = 0.865, $t = 8.697$, $p\text{-value} = 0.000$). This result supports the findings of existing literature. Cope (2003) observed that work overload significantly relate to indication of job stress. She concluded that work overload resulted in employee stress which increased job tension, intake of drugs and alcohol. Similarly, Karimi et al, (2014) found a significant positive relationship between work overload and job stress.

Table 10: *Descriptive Statistics of Job stress factors*

Variable	Mean	Median	Skewness	Std. Deviation	Quartile Deviation	Min.	Max.
Work Demand	4.51	5.00	-.488	1.224	1	1	6
Work Overload	3.87	4.00	-.071	1.301	1	0	6
Work-Life conflict	4.73	5.00	-.754	1.227	1	0	6
Unsafe working conditions	3.36	3.00	-.154	1.404	1	0	6
Verbal abuse by clients	3.51	4.00	-.116	1.361	1.5	0	6
Long hours of work	4.13	4.00	-.280	1.353	1	0	6
Role ambiguity	1.91	2.00	.658	1.199	1	0	6

Source: Field survey (2017)

Another factor identified to cause stress is work-life conflict. Work-life conflict occurs when workers spend so much time on job roles which leaves them with little or no time to attend to personal needs, family and other social responsibilities. Findings from the study (Table 10) showed that while the minimum work-life conflict score was zero, the maximum was 6. The distribution was also negatively skewed (skewness = -0.754, mean = 4.73). The majority of the 171 respondents had a work-life conflict score of more than 4.73. The median work-life conflict score was 5.00 with a quartile deviation of one. In order to determine if work-life conflict contributes to stress, the mean score of 4.75 was compared with the standard of 3.0. The test results (Table 11) show that the mean difference of 1.725 was statistically significant ($t = 18.381$, $p\text{-value} = 0.000$). This finding suggests that work life conflict contributes significantly to job stress at the College of Distance Education. The result of this study collaborates the study by Bell et al. (2012) who found that a struggle occurs due to the limited time and resources to meet the demands of both the family and organisation and this culminate to job related stress. Nart and Batur (2014) also found that increased demands of the workplace result in workers spending so much time on the work, leaving them unattended to their families and friends. This results in increase dissatisfaction thus resulting in stress.

The respondents were also asked to indicate the extent to which the working conditions stress workers. While the minimum score was zero, the maximum was six. Most of the respondents indicated that their working conditions were unsafe. The distribution of unsafe working conditions was negatively skewed (skewness = -.154, mean = 3.36) suggesting that the

majority of the respondents indicated their unsafe working condition score to be more than the mean score. The median score was 3.0 with a quartile deviation of one (Table 10). The one sample t-test was conducted to determine whether the mean unsafe working conditions score was significantly different from the standard of three. The test results show that unsafe working conditions is a source of stress for workers of CoDE (Mean difference = 0.357, $t = 3.322$, $p\text{-value} = 0.001$).

Another variable that has been identified to contribute to stress is verbal abuse by clients and co-workers. Like the other factors that contribute to stress, respondents are asked to score, on a scale of 0 - 6, whether verbal abuse is a source of stress. The minimum score is zero compared to a maximum of 6. The scores for the majority of the respondents are higher than the mean score of 3.51 (skewness = -0.116). The median score is four with a quartile deviation of 1.5. The test results show that the mean verbal abuse score is significantly different from the acceptable standard of three (Mean difference = 0.515, $t = 4.946$, $p\text{-value} = 0.000$). This means that verbal abuse by clients was a source of job stress for the respondents.

Table 11: *One sample Test for Job Stress Factors (Test Value = 3)*

Factor	T	Df	Sig. (2-tails)	Mean Difference
Work Demand	16.118	170	.000	1.509
Work Overload	8.697	170	.000	.865
Work-Life Conflict	18.381	170	.000	1.725
Unsafe Work				
Environment	3.322	170	.001	.357
Verbal Abuse by Clients	4.946	170	.000	.515
Long Hours of Work	10.909	170	.000	1.129
Role ambiguity	-7.210	170	.000	-.678

Source: Field survey (2017)

Also examined as part of the factors causing stress is long hours of work. The mandated number of hours for the staff of CoDE is eight. However, due to the nature of the operations of distance education of the college, most of the workers often find themselves working longer than the mandated number of hours. The score for this factor varied from one to six. The distribution is negatively skewed (skewness = -0.28, mean = 4.13). The score for long hours of work for the majority of the respondents is greater than the mean score. The median score is 4.0 with a quartile deviation of one. Further test was conducted to determine whether the mean long hours score is significantly different from the standard of three. Evidence from the test shows that (Mean difference = 1.129, $t = 10.9$, $p\text{-value} = 0.000$) the mean score of long hours of work was significantly higher than the acceptable standard of three (Table 11). This means that long hours of work is a source of stress for

workers of CoDE. This result is similar to the finding of Major (2002) who found that working for longer hours was contributory factor to job stress and depression. The result also collaborates that of So (2009) who reported that employees involved with weekend work and prolonged working hours significantly have higher levels of emotional exhaustion, job stress and psychosomatic health problems.

The final factor examined, as part of the causes of stress, is role ambiguity. Unlike the other stress factors, the distribution of role ambiguity was positively skewed (skewness = 0.568, mean = 1.91). While some of the respondents did not see role ambiguity as a major source of job stress (minimum score = 0) others saw it as a major source of stress (maximum = 6). However, the score for the majority of the respondents were lower than the mean score of 1.19. The median score for role ambiguity was two with a quartile deviation of one. Further test results showed that the mean score for role ambiguity was not significantly different from the acceptable standard of three (mean difference = -0.678, $t = -7.21$, $p\text{-value} = 0.000$). From these results, it is conclusive that role ambiguity is not a source of job stress for the workers of CoDE. This discovery is not consistent with the study of Lankau et al, (2006) and Khattak et al. (2013), who found that role ambiguity significantly contributes to job stress. However, the result is similar to that of Safaria et al. (2011). Safaria et al. (2011) findings showed that role ambiguity was not a contributing factor to job stress to a sample of 124 academic staff in Malaysian public universities.

Further analysis was done using factor analysis to identify the most influential factors that cause job stress at the college. Decision makers and

policy implementers need valid documentation to be able to make valid decisions. Therefore using a principal component analysis, the following factors emerged as stress factors according to their variances. Table 12 presents details of these factors and their percentage variances.

Table 12: *Job stress factors at CoDE*

Job Stress Factors	% of Variance Explained
Work demand	45.423
Work overload	14.874
Work – life conflict	12.768
Unsafe working conditions	8.808
Verbal abuse by clients	7.340
Long hours of work	6.869
Role ambiguity	3.918

Source: Field survey (2017)

From table 12 above, it can be realized that work demand contributes 45.423% of total job stress experienced by the staff of the college of distance education. This is followed by work overload, with a percentage variance of 14.874%. Work – life conflict also contributes to job stress with a percentage variance of 12.768. The other factors (unsafe working conditions, verbal abuse by clients, long hours of work and role ambiguity) also follow in order of importance. This suggests that in formulating and implementing job stress management policies, management have to look at these factors in order of importance.

Chapter summary

The chapter identified the response rate for the study. Also discussed in the chapter were the demographic characteristics of the respondents. Tables were presented to show details of respondents' demographics in the form of frequencies and percentages. A descriptive statistics was employed to identify the means, median, standard deviations and skewness of the job stress factors. A single sample t-test statistics was also employed to compare the means of job stress factors. Finally, a Principal Component Analysis was used to bring out the job stress factors at the College of Distance Education, University of Cape Coast.

CHAPTER FIVE

WORK ENVIRONMENT AND LEVELS OF JOB STRESS AT THE COLLEGE OF DISTANCE EDUCATION

Introduction

This section discusses the nature and description of the working environment of the College of Distance Education, University of Cape Coast. The chapter presents the levels of job stress among the staff of the College and the various job stress related diseases suffered by respondents. Further, respondents' demographic characteristics are compared with their levels of job stress.

The Work Environment of CoDE

Safe and healthy work environment has always been an issue in the law governing labour management. The conditions under which job is performed can be friendly, difficult or even dangerous to the health and safety of job performers. Friendly work environment increases performance and quality of life while dangerous or unfriendly working environment is detrimental to peoples' health. According to the Job-Demand-Control Theory, the work environment can contribute to increasing the stress levels of workers. The theory stipulates that where the work environment is demanding, job holders are likely to be affected by stress. As can be seen in Table 13, the majority (57.9%) of the respondents described their work environment as very demanding while 33.3 percent saw their job as extremely demanding. Only a few of the respondents described their job environment as moderately demanding or not demanding.

Table 13: *Description of the work environment of CoDE*

Description	Frequency	Percent
Not demanding	5	3.0
Moderately demanding	10	5.8
Very demanding	99	57.9
Extremely demanding	57	33.3
Total	171	100.0

Source: Field survey (2017)

In order to validate the scores for the description of the work environment presented in Table 13, one of the key informants had described the work environment of the college as:

Generally, I would say that the environment is very very stressful. We have had a lot of complains from staff about this stressful nature, but for the indepth satisfaction amongst staff, a lot of people would have left.

Another key informant supported the fact that their work environment is very demanding by saying that:

The work environment here, the least said, is stressful because when you look at what is done here at the College of Distance Education and you compare it with the mainstream, then you realise that there is a lot of workload here. We work 24hours in a day, here at Distance Education. Most of our activities are centred on the weekends where we have most of our staff going out there teaching and facilitating courses. Some also go out to monitor and assess situations, but then when they come back, on Monday, they are expected to come back to work. So, you see, it is perpetual. All the time, we are working.

Sometimes you come back on Monday, tired and devastated, yet you have to come back to the office and that makes the work very very stressful.

This confirmed that the work environment of the respondents was deemed to be very demanding. However, respondents recognised that the demanding work environment in the college was seasonal for some units and continuous for other units. This was confirmed by a key informant who espoused that:

The work demands and pressures we are talking about, some units, it is seasonal, some others you see, is a cycle. Let's take a critical look at the academic calendar, you find that as 1st Semester ends, we have 2 weeks, and then another semester begins. At the end of that semester, we have only one week between the Second Semester and the next semester. I mean who will work under such stressful conditions. Let's take examinations unit for example, when we have quiz 1, quiz 2 is following, we have re-sit exams, after re-sit, we have end of semester exams. All these are done in little time, quiz 1 takes 2 weeks, quiz 2 takes 2 weeks, re-sit takes 4 weeks and face to face come along in between these, so is like every time, there is pressure.

Another key informant also had this to say:

When you take certain units, like the assessment unit and examinations units, and the fact that the students' population is close to 55,000 and the assessment unit has to sit down and enter the scores for each student, and if each student is writing about five papers, times 55,000 and you have to enter the final year students before congregation, you can imagine the stress. Some of them, during the peak season, peak season, I mean when congregation is approaching, some leave the assessment room mid-night, some when is too

late, they sleep, go back the following morning, shower and come back. The same thing applies to examination units.

The Job-Demand-Control Theory, stipulates that as people continue to experience high job demand, the resources they have to control such demands depletes and this, in turn, causes strains and results in psychological, mental and physical illness. It was based on this assertion that the study explored the stress related diseases suffered by the respondents. The most common illnesses suffered by the respondents is presented in table 14.

Table 14: *Respondents' with stress related diseases*

Type of disease	Frequency	Percent
High blood pressure	18	41
Depression	-	-
Asthma	2	4.5
Diabetes	-	-
Chronic headaches	8	18.2
Forgetfulness	2	4.5
Sleeplessness	9	20.4
Numbness	5	11.4
Total	44	100

Source: Field survey (2017)

As can be seen from Table 14, forty-four of the respondents are reported to have been affected with stress related diseases. A greater number of respondents are suffering from high blood pressure (18), with 8 of them with chronic headaches. Only two people are affected with forgetfulness and none reported to have suffered from depression or diabetes. Hussain and Khalid

(2011) found that jobs with high demands usually trigger certain diseases including hypertension (high blood pressure), depression, diabetes and chronic headaches. Besen (2013) also discovered that people whose working environment was very demanding were normally associated with certain diseases; including anxiety, high blood pressure and sleeplessness. All these conditions, according to Hakanen et al. (2008) negatively affect human resource development.

Further analysis was done to associate the work environment with the illness suffered by the respondents. It became evident from the study that two respondents each were suffering from asthma and forgetfulness. These respondents indicated that their job environment was extremely demanding. The majority of the respondents who were suffering from high blood pressure described their work environments as either extremely demanding (55.6%) or very demanding (38.95) (Table 15).

Table 15: *Distribution of type of job environment and hypertensive status*

Job environment	Hypertensive status				
	Yes	No	Total	% of Yes	% of No
Not demanding	-	5	5	-	3.3
Moderately demanding	1	9	10	5.6	5.9
Very demanding	7	92	99	38.9	60.1
Extremely demanding	10	47	57	55.6	30.7
Total	18	153	171	100.0	100.0

Source: Field survey (2017)

Further findings from the study showed that nine of the respondents were suffering from sleeplessness as in (table 15). Five out of the nine described their job environment as very demanding while the rest (four)

described their work environment as extremely demanding. The details are presented in Table 16.

Table 16: *Distribution of type of Job Environment and Respondents with Sleeplessness*

Job environment	Sleeplessness				
	Yes	No	Total	% of Yes	% of No
Not demanding	-	5	5	-	3.1
Moderately demanding	-	10	10	-	6.2
Very demanding	5	94	99	55.6	58.0
Extremely demanding	4	53	57	44.4	32.7
Total	9	162	171	100.0	100.0

Source: Field survey (2017)

The findings on the relationship between job environment and illnesses affecting staff of CoDE are consistent with many empirical studies. In the view of Whitehead (2001) when the demands of jobs do not commensurate with people's resources, it reduces their psychological wellbeing which ultimately affects their health and development. Similarly, Crawford et al. (2010) observed that excessive job demands from which employees do not adequately recover leads to continuous over exhaustion which may result in certain health conditions including anxiety, depression, chronic headache, heart-related diseases, sleeplessness and tingling in some part of the body. Other empirical studies similar to those of Whitehead (2001) and Crawford et al. (2010) (Besen, 2013; Hakanen et al., 2008; & Hussain & Khalid, 2011) show that jobs with high demands usually trigger certain diseases including hypertension, depression, diabetes and chronic headaches

which negatively affect the development of workers. These propositions were confirmed during the key informant interview with one of the heads of department. She had this to say:

As I sit here, I have been diagnosed of being hypertensive and honestly, I attribute it to the demanding nature of this work. How students will come and complain, you have to do something for them within a short time that may not even be within your reach. They don't understand issues, sometimes they insult you. Sometimes you don't feel well, but there is so much to do that you feel reluctant to even go to the hospital until things have escalated. So I attribute my health situations to the demanding nature of the job'.

Another key informant also had this to say:

The effect of the demanding nature of our work has been negative on our health. When I came to this system, it was in my 4th year that I fell ill, I went to the hospital and was diagnosed of having high blood pressure. I argued with the doctor and so he asked me, where do you work? When I said Centre for Continuing Education, he said what is your argument then? You know, you people work as if the world is coming to an end. So from that time to date, I have been battling with high blood pressure and I know colleagues' health have also been affected.

Another head of department also confirmed this by saying:

You see, we are not machines. Even machines when you task them, there is the tendency to break down. We fall sick most of the time, and I believe is as a result of this stressful nature of our work. And I must even say that when you go to the University Hospital, on record, of all the five colleges we have here

in the University of Cape Coast, the college that has its staff reporting most of the time is the distance education. And the doctors have also been able to attribute it to the nature of work that is here.

Job Stress Levels

The Job Stress Inventory (JSI) was adopted to measure the stress levels of respondents. The JSI was customised to make it more applicable and to be able to measure aspects like the physical demands of the job, uncertainty, time pressure and overall stress levels. The inventory is composed of 20 items with a 6-point scale starting from never stressed to always stressed. The interval of the scores was 0 to 120. While the minimum stress score was 18, the maximum was 82. The stress levels of the respondents was categorised into low, moderate, high, very high and danger using 0 – 40, 41 – 60, 61 – 80, 81 – 100 and 101 – 120 respectively based on the JSI criteria.

Findings from the study showed that none of the 171 respondents was in the danger zone category even though the majority (60.8%) of them were moderately stressed (Table 17). As evident in the table, only one respondent was very highly stressed compared to 15.8 percent that were in the lowest category of stress. The rest of the details on the stress levels of respondents are presented in Table 17.

Table 17: *Job Stress Levels of Respondents*

Stress level	Frequency	Percent
Low	27	15.8
Moderate	104	60.8
High	39	22.8
Very high	1	0.6
Total	171	100.0

Source: Field survey (2017)

As part of the analysis on the stress levels of respondents, the study examined the association between stress levels and job environment. The findings in Table 17 show that the only person who was very highly stressed indicated his job environment to be very demanding. While the majority of the lowly stressed (63.0%) and the moderately stressed (64.4%) respondents found their work environment very demanding, the majority of the highly stressed (61.5%) respondents found their job environment extremely demanding. Other details of the distribution of stress levels by job environment are captured in Table 14. The findings on the relationship between job environment and stress levels confirm those of Butt (2009) and Kula (2011). According to these authors, working in a highly stressful job environment could result in physical, psychological and behavioural job stress which can affect employee development in terms of health, job performance and the rate of learning.

Table 18: *Distribution of Stress Levels by Job Environment*

Job environment	Stress levels				Percent				
	Low	Moderate	High	Very high	Total	% of low	% of moderate	% of high	% of very high
Not demanding	4	1	-	-	5	14.8	1.0	-	-
Moderately demanding	2	7	1	-	10	7.4	6.7	2.6	-
Very demanding	17	67	14	1	99	63.0	64.4	35.9	100.0
Extremely demanding	4	29	24	-	57	14.8	27.9	61.5	-
Total	27	104	39	1	171	100.0	100.0	100.0	100.0

Source: Field survey (2017)

The study further analysed the stress levels of the sub-groups in the samples. The discussion was structured around sex, marital status, job rank,

job roles and age groups. As discussed in Table 17, only one person was very highly stressed and for ease of analysis the highly stressed and the very highly stressed were collated as highly stressed. With respect to the stress levels of males and females, many researchers have posited significant differences between stress levels of males and females. The findings on the stress levels of males and females are presented in Table 19.

Table 19: *Stress Levels of Males and Females*

Sex	Level of stress			Total	Percent		
	Low	Moderate	High		% of low	% of moderate	% of high
Male	11	66	18	95	40.7	63.5	45.0
Female	16	38	22	76	59.3	36.5	55.0
Total	27	104	40	171	100.0	100.0	100.0

Source: Field survey (2017)

As depicted in Table 19, 55.0 percent out of the 40 highly stressed respondents were females, the rest (45.0%) were males. It also became evident that 59.3 percent of the 27 lowly stressed respondents were females. This suggests that the females were either lowly stressed or highly stressed while the majority (63.5%) of the moderately stressed respondents were males. A Pearson's chi-square was computed to determine the significance of the association between sex and stress level. At the 5% alpha level the association between sex and stress levels was significant ($\chi^2 = 6.838$, p-value = 0.033). The effect size of the association was tested using the Crammer's V statistic. A Crammer's V coefficient of 0.196 with a p-value of 0.033 indicates a weak significant association between sex and stress levels (Real & Parker, 1992). This finding is similar to that of Brickford (2005), whose findings suggested

that women are predominantly reported to be negatively affected by workplace stress than men because of the principal role played by women in the provision of family care in addition to workplace responsibilities.

The result is also consistent with a report by the American Institute of Stress (2011) which suggests that females are reported to have higher job stress levels than males. Cohen and Janicki-Deverts (2009) explain that women suffer prejudice and discrimination in organisations, especially those who occupy senior positions as a result of organisational policies and their colleagues which make them vulnerable to workplace stress. However, the finding was inconsistent with the findings of Vanagas and Bihiri-Axelsson (2013) who found that males in Africa exhibit high stress levels than females because male predominantly occupy high positions in organisations which comes along with greater responsibilities, decision making and problem solving.

The next issue examined was the stress levels of the different categories of marital status. Findings from the study showed that out of the 27 whose stress level was low 63.0 percent of them were married, the rest (37.0%) were single. Among the 104 moderately stressed respondents, 58.7 percent of them were married while 70 percent of the highly stressed respondents were also married (Table 20). These distributions reflect the marital status of the respondents as about 62 percent of them were married.

Table 20: *Stress levels among categories of marital status*

Marital status	Level of stress			Total	Percent		
	Low	Moderate	High		% of low	% of moderate	% of high
Married	17	61	28	106	63.0	58.7	70.0
Single	10	39	21	60	37.0	37.5	27.5
Separated	-	4	1	5	-	2.5	2.5
Total	27	104	40	171	100.0	100.0	100.0

Source: Field survey (2017)

From the distribution on table 20, those who were found to have high levels of job stress were the married people (70%), as against a percentage of 27.5 who were unmarried. This suggests that married people at the college are found to be more stressed than their unmarried counterpart as the married are expected to perform dual roles involving organisational and domestic responsibilities. This finding confirms that of Nagra and Arora (2013), who reported a higher mean score for married people in terms of levels of job stress. They explained that their findings may be due to the dual responsibilities of job and family since married workers have to devote extra time and effort to take care of their families, children, spouses, in-laws and other domestic routines, in addition to job responsibilities. Consequently, married employees are not able to socialise and build peer relations and thus face conflicts at both work and home which increase their stress levels.

This finding complements the results of Garima and Kiran (2014), whose finding suggests that married people are required to make a lot of social adjustments in addition to their job responsibilities and this causes more stress and anxiety to them which negatively affect their health and development. However, the finding of this study did not support the results of Abirami (2012); and Olatunji and Mokuolu (2014). Abirami observed that being married is not a stress causing factor as it is established that married people tend to get social as well as family support and this makes them both happy and successful in their professions and career lives and thus less stressed. Further, Olatunji and Mokuolu (2014) found that unmarried people were the most affected with respect to job stress as they lack social support and other social network resources which make them unhappy and vulnerable to stress.

As part of the analyses of the stress levels and demographic characteristics of respondents, the study explored the stress levels of the different age categories in the sample. The findings in Table 21 shows that half of the 78 respondents with moderate stress level were in the 31 – 40 age categories. Also worthy of note is that while most (40.7%) of the lowly stressed respondents were in the 20 – 30, about 11 percent each were in the 41 -50 and 51 - 60 age groups. The relationship between age groups and stress levels was not significant ($\chi^2 = 7.465$, p-value = 0.28). The rest of the details on the stress levels among the different age groups are presented in Table 21.

Table 21: *Stress Levels and Age Groups*

Age groups	Level of stress			Total	Percent		
	Low	Moderate	High		% of low	% of moderate	% of high
20 – 30	11	28	10	49	40.7	26.9	5.8
31 – 40	10	52	16	78	37.0	50.0	40.0
41 – 50	3	18	12	33	11.1	17.3	30.0
51 – 60	3	6	2	11	11.1	5.8	5.5
Total	27	104	40	171	100.0	100.0	100.0

Source: Field survey (2017)

Okeke, Adu, Drake and Duku (2014) had found a significant relationship between age and job stress and identified a higher job stress levels for the age bracket of 40-50years. The findings of Affum-Osei, Agyekum, Addo and Asante (2014) also confirm this. The results of this study failed to confirm these findings. It was also inconsistent with the findings of Hunnur and Bagini (2014) who found that people within the ages of 41-50 are mostly found to have high job stress levels. However, the findings were consistent with that of Tandon, Mahaur and Gupta (2014) and Knight and Mahudin (2009), who discovered that job stress levels were normally low with the ages of 20-30 and 51-60 years.

In addition to the discussion on the association between demographic characteristics and job stress levels, the study also examined the relationship between job stress levels and other background information on respondents. The background information were job rank, job role and the educational level

of respondents. First, the study associated stress levels and job rank. Other details on the distribution of stress level by job role can be found in Table 22.

Table 22: *Distribution of Stress Level by Job Rank*

Job rank	Level of stress			Total	Percent		
	Low	Moderate	High		% of low	% of moderate	% of high
Jnr. Staff	9	18	4	31	33.3	17.3	10.0
Snr. Staff	16	66	28	110	59.3	63.5	70.0
Snr. Member	2	20	8	30	7.4	19.2	20.0
Total	27	104	40	171	100.0	100.0	100.0

Source: Field survey (2017)

As depicted in Table 22, 70 percent out of the 40 highly stressed respondents were senior staff. Similarly, 63.5 percent out of the 104 moderately stressed respondents were senior staff. These distributions were not different from the lowly stressed respondents as 59.3 percent of the 27 lowly stressed respondents were also senior staff. The findings as presented in Table 22 reflect the dominance of senior staff respondents (110) in the sample. However, association between stress level and job rank was not statistically significant ($\chi^2 = 7.147$, p-value = .128). This indicates that for staff at the College of Distance Education, job rank is not associated with stress levels as indicated by (Munir & Mehmood, 2013).

The level of education of employees has been linked with their stress levels. The Job-Demand-Control Theory postulates that, people with higher education exhibit low stressful conditions because the theory believes that people with higher levels of education have greater control over their jobs. To ascertain this assertion, the study explored the relationship between stress levels and levels of respondents' education. Evidence from Table 23 shows

that 51.9 percent of the lowly stressed respondents were 1st Degree holders. It also became evident that none of the lowly stressed respondents was a PhD or a diploma holder. Apart from these peculiar cases, the preponderances of the rest of the distributions did not suggest any significant association between stress level and the educational level of respondents ($\chi^2 = 11.425$, p-value = .325). The rest of the distributions of educational level by stress level are captured in Table 23.

Table 23: *Distribution of Stress Levels by Educational Level*

Educational level	Level of stress			Total	Percent		
	Low	Moderate	High		% of low	% of moderate	% of high
Secondary	5	12	4	21	18.5	11.5	10.0
Diploma	-	7	2	9	-	6.7	5.0
1 st Degree	14	41	19	74	51.9	31.5	47.5
Masters	4	34	13	51	14.8	32.7	32.5
Ph.D	-	4	1	5	-	3.8	2.5
Others	4	6	1	11	14.8	5.8	2.5
Total	27	104	40	171	100.0	100.0	100.0

Source: Field survey (2017)

The findings on the association between stress level and educational level as presented in Table 23, did not confirm those of Kula (2011), Rahmani et al. (2013) and Aftab and Khatoon (2013). Aftab and Khatoon established that people with low levels of education are normally associated with high levels of stress. Kula (2011) on the other hand discovered that people with higher education are the most stressful in an organisation and this finding was

confirmed by Rahmani et al. (2013) that people with higher education are normally associated with higher stress levels. They explained that people with higher educational levels normally occupy managerial roles in organisations which usually encompass high degree of responsibility, thinking through the entire organisation and problem solving. The inconsistencies in the findings can be explained as the respondents with higher degrees sampled were academics who did not hold any managerial positions.

The study further explored the association between job roles and stress levels. Literature has found a lot of inconsistencies surrounding the differences in job role and stress levels (Cope, 2003; Butt, 2009; Kula, 2011). While some agree that people with higher job role have higher stress levels because of many job responsibilities, others have also observed employees of lower role to be highly stressful as a result of low income, low position and low recognition (Munir & Mehmood, 2013). Table 24 presents details of the distribution between job roles and stress levels of respondents.

Table 24: *Distribution of job roles by Stress Levels*

Job roles	Level of stress			Total	Percent		
	Low	Moderate	High		% of low	% of moderate	% of high
Lecturer	1	18	7	26	3.7	17.3	17.5
Administrator	10	53	17	80	37.0	51.0	67.5
Driver	-	4	3	7	-	3.8	7.5
Messenger/cleaner	6	9	1	16	22.2	8.7	2.5
Clerical	7	15	1	23	25.9	14.4	2.5
Technician	3	5	1	9	11.2	4.8	2.5
Total	27	104	40	171	100.0	100.0	100.0

Source: Field survey (2017)

The distribution of job roles and stress levels as presented in Table 24 shows that out of the 40 highly stressed respondents 67.5 percent of them were administrators. Also worthy of note is that 51 percent of the moderately stressed respondents were also administrators. The study also found that none of the lowly stressed respondents was a driver. The association between job roles and stress level was tested using the Pearson's Chi-Square statistic. A Chi-Square statistic of 24.008 with a p-value of 0.008 indicates a significant association between job role and stress level. The effect size of this association was determined using the Cramer's V co-efficient. This confirmatory test was also found to be significant, but moderate effect, association between stress levels and job roles ($V = .265$, $p\text{-value} = .008$). In effect it was observed that the moderate to highly stressed respondents were dominated by administrators. This is partly attributed to high number of administrators (80) in the sample.

Chapter Summary

The chapter examined the work environment and levels of job stress among staff of the College of Distance Education. It became obvious that many of the staff of the college described their work environment as very demanding. An examination of staff job stress levels revealed that many of the staff were either moderately stressed or highly stressed. A comparative analysis was conducted to identify the association between staff demographic characteristics and their job stress levels. The association was statistically significant with sex, job roles and job stress. The chapter also examined the relationship between job stress levels and job stress related diseases.

CHAPTER SIX

EFFECT OF JOB STRESS ON HUMAN RESOURCE DEVELOPMENT

Introduction

This section examines the effect of job stress on some components of human resource development. Job stress was measured with the use of Job Stress Inventory questionnaires which was composed of 20 items with a 6-point interval scale. Respondents were asked to rate how some job related activities pose as stress to them. This took the form of 'never, rarely, sometimes, often, very often, most often and always, with scoring as 0, 1, 2, 3, 4, 5 and 6 respectively. Human resource development on the other hand was measured using the various components identified in the literature. Like many variables in social sciences, human resource development was treated as a latent variable which could not be measured directly. Therefore, using the various components (health, wellbeing, capabilities and cognitive capacity), a principal component analysis was employed to assess the extent to which these variables (health, wellbeing, capabilities and cognitive capacity) could measure or explain human resource development. The total variance explained was 67.23 percent, meaning that these variables explained or accounted for human resource development by 67 percent.

First, the study examined the descriptive statistics of the dependent and the independent variables. With respect to job stress, the mean score was 51.46 (median = 51, skewness = -0.067) with a standard deviation of 11.745. The distribution of cognitive capacities was negatively skewed (skewness = -0.624) with majority of the respondent having a cognitive capacity score of more than 26.6 (mean). The median cognitive capacity score was 28 with a

quartile deviation of 4.5. The distributions of health, wellbeing and capabilities were approximately normal. As evident in Table 25, the mean wellbeing score was 15.42 (skewness = -0.322, median = 16) with a standard deviation of 4.8. The mean health score was 13.3 (skewness = -0.444, median = 14) with a standard deviation of 4.6. With respect to capabilities, the mean capabilities score was 21.26 (skewness = -0.342, median = 22) with a standard deviation 3.7.

Table 25: *Descriptive statistics of Job Stress and HRD component scores*

Variable	Mean	Median	Skewness	Standard deviation	Quartile deviation
Job Stress	51.46	51	-0.067	11.745	-
Health	13.3	14	-0.444	4.6	-
Wellbeing	15.42	16	-0.322	4.8	-
Capabilities	21.26	22	-0.342	3.7	-
Cognitive capacities	26.6	28	-0.624	-	4.5

Source: Field survey (2017)

In order to determine the effect of job stress on the four components of human resource development (cognitive capacities, capabilities, health and wellbeing), a simple linear regression analysis was conducted and the coefficient tested. The model used the following statistical equation:

$$Y = \beta_0 + \beta X + \epsilon$$

Y = dependent variable (in this case each component of HRD);

β_0 = the constant or the intercept

β = the regression coefficient

X = the independent variable (job stress)

Preliminary analysis was conducted to ensure no violation of normality (as discussed in the descriptive analysis) and linearity. The assumption of linearity was tested using the Pearson product moment correlation. As evident in Table 26, all the HRD components significantly inversely related with job stress with Pearson correlation coefficients of -0.292 or more and a p-value of 0.000. This indicates that increases in job stress levels are associated with reduction in health, wellbeing, capabilities and cognitive capacities.

Table 26: *Correlation between job stress and the components of HRD*

		Cognitive capacities	Capabilities	Health	Wellbeing
Job Stress	R	-.292	-.335	-.548	-.478
	P-value	.000	.000	.000	.000
	N	171	171	171	171

Source: Field survey (Ofosuhene)

The model summary of the effect of job stress on health shows that about 30 percent of the variations in health was attributed to variations in job stress levels. The explanatory power was significant as indicated by an F statistic of 72.523 with an associated p-value of 0.000. From the regression model (Health = 24.495 – 0.217 job stress level) it became evident that job related stress inversely affects health and an absence of job stress results in a health score of 24.495. Given a t - statistic of -8.516, a p-value of 0.000 and a confidence bounds not overlapping zero (-0.267, -0.167) the effect of job

stress on health was statistically significant (Table 27). This means that increases in job stress levels reduces health status.

Table 27: *Effect of job stress on health*

Model	Unstandardized Coefficients		Standardized Coefficients	T	p-value	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower	Upper
(Constant)	24.495	1.344		18.223	.000	21.84	27.14
Job Stress	-.217	.025	-.548	-8.516	.000	-.267	-.167

a. Dependent Variable: Health

This result confirmed the finding of Whitehead (2001) who espoused that job stress reduces people’s health and affects their job performance levels. This finding was also in agreement with the findings of Bloom and Canning (2003). Further, the result of this study collaborates with the discovery of Luthans (2010), whose study revealed a negative correlation between job stress and the health of staff.

Another component of HRD examined in relation with job stress was cognitive capacity. Evidence from the study showed that job stress explains 8.5 percent of the variations in cognitive capacity. The explanatory power, even though small, was found to be significant ($F = 15.767$, $p\text{-value} = 0.000$). The regression model ($\text{Cognitive capacity} = 35.686 - 0.177\text{stress level}$) showed that where there is an absence of job stress, cognitive capacity will be 35.686 (Table 28). It was also evident that job related stress inversely affects cognitive capacity. That is, increases in job stress levels reduce one’s cognitive capacity. The effects of stress on cognitive capacity was significant ($t = -3.97$, $p\text{-value} = 0.000$, confidence interval = $-0.265, -0.089$). This finding

collaborates the result of Welsh (2013), who reported that job stress negatively affect intellectual functioning in the form of decision making and problem solving. The finding was also supported by Jones (2003), who observed that job stress retarded people’s ability to learn and affected their concentration. The result of the study by Henckens et al. (2009) reported that job stress has negative effect on memory functions and cognitive functioning of the brain, thus supporting the finding of this study.

Table 28: *Effect of job stress on cognitive capacity*

Model	Unstandardized Coefficients		Standardized Coefficients	t	p-value	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower	Upper
(Constant)	35.686	2.349		15.190	.000	31.04	40.32
Job Stress	-.177	.045	-.292	-3.970	.000	-.265	-.089

a. Dependent Variable: Cognitive capacity

The next issue examined was how job stress affects the wellbeing of respondents. The regression model explained 22.8 percent of the variations in wellbeing and the overall effect was statistically significant (F = 49.941, p-value = 0.000). As depicted by the regression model (Wellbeing = 25.444 – 0.195 job stress) in Table 29, a unit increase in job stress level reduces wellbeing by 0.195 given a constant of 25.444 and a unit decrease in job stress level will increase wellbeing by 0.195. Generally, it was observed that job stress significantly inversely affect wellbeing (t = -7.067, p-value = 0.000, confidence level = -249, -.140). This discovery is similar to the finding of Juniper, White and Bellamy (2009) whose study reported a significantly

negative effect of job stress on employee wellbeing. The result of this study has also confirmed the survey by Zhang and Tan (2012) who observed a negative effect of job stress on people’s wellbeing.

Table 29: *Effect of job stress on wellbeing*

Model	Unstandardized Coefficients		Standardized Coefficients	t	p-value	95% Confidence Interval for B	
	B	Std. Error				Beta	Lower
(Constant)	25.444	1.455		17.493	.000	22.57	28.31
Job Stress	-.195	.028	-.478	-7.067	.000	-.249	-.140

a. Dependent Variable: Wellbeing

The last component of HRD that is affected by job stress is capabilities. Employee capabilities reflect individual’s perception of his or her own knowledge, skills and experiences, abilities to achieve results, and room for potential growth. It is believed that developing human resources make them more capable of completing tasks successfully and competitively (Bontis & Serenko, 2007). The application of the capability concept has largely involved the creation of innovative learning experiences that help develop the individual in the workplace. Like the previous components HRD (health, wellbeing and cognitive capacities), the study explained capabilities using job stress. Data from the study showed that job stress explains about 11 percent of the changes in capabilities. With an F-statistic of 21.383 and a p-value of 0.000 the total variance explained was significant. The regression model (Capabilities = 26.736 – 0.163 job stress) shows that job stress inversely affect capabilities. That is, increase in job stress reduces capabilities and decrease in job stress enhances capabilities. With a t statistic of -4.624, a p-value of 0.000 and a confidence bounds that do not overlap zero (-0.152, -0.061) the effect of

job stress on capabilities was significant (Table 30). This result is in agreement with the findings of Hargrove et al. (2015).

Table 30: *Effect of job stress on capabilities*

Model	Unstandardized Coefficients		Standardized Coefficients	t	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
(Constant)	26.736	1.214		22.028	.000	24.34	29.13
Job Stress	-.106	.023	-.335	-4.624	.000	-.152	-.061

a. Dependent Variable: Capabilities

Chapter summary

The chapter examined the effect of job stress on four components of human resource development. Using the job stress inventory Job Stress was measured on a six point scale. The relationship between job stress and these HRD components was tested with a Pearson product moment correlation coefficient. The results showed a significant inverse correlation between job stress and all the components of HRD analysed. A simple regression model was employed to examine the effect of job stress on the four components of HRD. It was found that, job stress negatively affects all the four components of HRD.

CHAPTER SEVEN

JOB STRESS COPING MECHANISMS AT THE COLLEGE OF DISTANCE EDUCATION

Introduction

This section presents the different coping styles respondents employ in dealing with job related stress. A number of coping mechanisms was presented for respondents to identify the most widely used strategies. A descriptive statistics table is presented, which showed the means of the various coping styles as well as their standard deviations. A table of an exploratory factor analysis is illustrated to indicate the coping styles mostly used by respondents.

Job stress coping mechanisms

The last objective of the study was to investigate respondents' job stress coping strategies. In order to do this, the coping schema inventory, which formed part of the job stress inventory, was adopted to solicit information from respondents. The coping schema inventory uses ten test items which covered active coping, acceptance coping, emotional support, professional assistance, disengagement coping and avoidance coping. The rest are problem solving, relaxation techniques, routine exercise, and social support. A six point scale that varied from 'no agreement to highest agreement was used to determine the level of agreement with respect to the coping schema inventory. Details of the descriptive statistics on the coping strategies are presented in Table 31. As can be seen in the table, the coping strategy scores for all the items varied from zero to five.

Table 31: *Descriptive statistics of job stress coping mechanism*

Coping Mechanism	Mean	Median	Skew .	Std. dev.	Quartil e dev.	Min	Max
Active coping	3.18	3.00	-.582	1.067	0.5	0	5
Acceptance Coping	3.27	3.00	-.442	1.142	0.5	0	5
Emotional support	2.85	3.00	-.350	1.277	1.0	0	5
Professional assistance	1.43	1.00	1.001	1.285	0.5	0	5
Avoidance coping	1.80	1.00	.887	1.445	1.0	0	5
Problem solving	2.71	3.00	-.183	1.325	1.0	0	5
Relaxation technique	1.54	1.00	.842	1.305	0.5	0	5
Routine exercise	1.50	1.00	.790	1.423	1.0	0	5
Disengagement coping	3.49	4.00	-.856	1.376	1.0	0	5
Social support	2.03	2.00	.378	1.433	1.0	0	5

Source: Field survey,

The first coping strategy that the study examined was active coping. Active coping is the process of taking active steps to try and remove the stressor or ameliorate its effects. Active coping involves the utilization of those psychological or behavioural coping efforts that are characterised by an attempt to use one’s own resources to deal with a stressful situation. These

responses are designed to either change the nature of the stressful event or to modify how one thinks and feels about the situation in order to change one's reactions to it. All the 171 respondents indicated their score with respect to active coping. The distribution of active coping was negatively skewed (Skewness = -0.582) indicating that the majority of the respondents use active stress coping score strategy. The median active coping score was 3.0 (mean = 3.18) with a quartile deviation of 0.5.

The next coping strategy examined was acceptance coping. Acceptance coping is the situation where people in stressful situations decide to accept the conditions and try to work towards the management of it. People who experience job stress decide to adopt acceptance coping style when they realise they cannot change the situation or deny its existence. The distribution of the acceptance coping strategy score was approximately normal (Skewness = -.442). The mean acceptance score was 3.27 (median = 3.0) with a standard deviation of 1.142 (Table 31).

Another coping strategy that the study examined was emotional support. Emotional support is characterised by the actions of caring or listening sympathetically to another person. It involves getting a mentor, a spiritual father or a lover to be 'there for you' at all times. The distribution of the emotional support scores, however, approximated normality (Skewness = -.350, median = 3). The mean emotional support score was 2.85 with a standard deviation of 1.277.

Professional assistance has also been identified as a stress coping mechanism. This is where people under stressful situations seek the assistance of professional counsellors to help them solve such problems. Evidence from the literature showed that people normally do not use professional counsellors in solving their job stress related problems. Dapaah (2014) attributed this to the fact that, most people do not have confidence in these professionals and as such do not make use of their professional expertise to help them solve their job related stress. Some also find those services to be expensive and so do not patronise it. Findings from the study suggested that most of the respondents did not use professional assistance as a coping strategy. The mean professional assistance score was 1.14 (Skewness = 1.001, median = 1.0) with a quartile deviation of 0.5 and this result collaborated the findings of Dapaah (2014).

The coping schema inventory also identifies avoidance as a stress coping strategy. Avoidance coping involves attempting to evade a stressful situation and deal with it indirectly. The study results show that avoidance was not a popular coping strategy among the respondents as the distribution was positively skewed (Skewness = 0.887, median = 1.0). The avoidance coping score for the majority of the respondents was less than the mean. The mean avoidance coping score was 1.8 with a standard deviation of 1.445. The findings of Leduc (2012) revealed that people do not normally use the avoidance style of coping. This results also confirms the report of Malini, Avijan & Sreeja (2016), who reported that avoidance coping was the least coping style used in India.

It has been observed that some people use the problem solving techniques to manage stress. Problem solving coping style is similar to that of

active coping. This is where people look at stressful situations and engage many tactics in solving the problems which bring about the stress, thereby eliminating the stressors and thus the negative effects of those stressors. It became evident that most of the respondents use problem solving to cope with stress. The distribution of problem solving stress coping score was approximately normal (Skewness = -0.18, median = 3.0). The mean problem solving score was 2.71 with a standard deviation of 1.325. The finding is similar to the findings of Malini et al., (2016).

Respondents were also asked to indicate their extent of agreement with respect to the use of relaxation as a stress coping technique. Relaxation is the situation where people intentionally stay off from physical work, thus sitting along the beach, enjoying a sea gaze or the sea breeze, or zooming in front of the television, enjoying a favourite programme. Through relaxation, bodily tension is released, leading to a psycho-physiological state of decreased arousal that opposes that of stress response and it is experienced as a calm state. Many studies have found relaxation as one of the best ways in dealing with job stress. The survey results showed that the distribution of relaxation score was positively skewed (Skewness = 0.842, mean = 1.54). The relaxation score for the majority of the respondents was lower than the mean score. The median relaxation score was one with a quartile deviation of 0.5. This distribution indicates that some of the respondents also employ the relaxation techniques as a way of coping with job stress.

It has also been observed that routine exercise help reduce job stress. Exercise programmes generally focus on providing a physical release from the tension that builds up in stressful situations, focusing the worker's attention on

physical activities rather than on the stressors. Evidence from the literature revealed that physical and mindful routine exercise is remarkably effective for improving mental and physical health in addition to reducing muscle tension and other stress symptoms without any side effect. As part of the schema inventory, respondents indicated the extent to which they use exercise as a stress coping strategy. The distribution of routine exercise was positively skewed (Skewness = 0.79, mean = 1.5) indicating that the majority of the respondents use routine exercise to cope with stress. The median routine exercise score was one with a quartile deviation of one.

Disengagement coping was identified by respondents as one of the mostly used stress coping mechanisms. Disengagement coping involves responses such as denial and wishful thinking. It involves an attempt to escape from the feeling of distress. People who use disengagement coping act as though the stressful condition does not exist, so that it does not have to be reacted to emotionally or behaviorally (Carver & Connor-Smith, 2010). The findings showed that the distribution of disengagement coping score was negatively skewed (Skewness = -0.856, mean = 3.49). This indicates that the disengagement coping score for the majority of the respondents was more the mean score. The median disengagement coping score was four with a quartile deviation of one.

The last coping strategy that the study examined was social support. With respect to social support as a stress coping mechanism, people rely on members in their social network for advice and counseling and sometimes engage in dialogues which to some extent enable them to reduce distress. Other workers rely on social network available at the work place including those

from superiors and colleagues, who offer advice and information to people on how to manage their job related problems that stress them. The most common sources of social support people use include, those support from supervisors, co-workers, families and friends. Data for the study showed that the distribution of social support was approximately normal (Skewness = 0.378, median = 2.0). The mean score for social support was 2.03 with a standard deviation of 1.433.

It can be seen from the above discussion that respondents mostly used disengagement coping, acceptance coping and active coping strategies. (Disengagement Coping: median = 4, skewness = -0.856), (Acceptance Coping: mean = 3.27, skewness = -0.442) and (Active Coping: median = 3.0, skewness = -0.582) coping strategies. Other relevant strategies used included emotional support and problem solving coping strategies. (Emotional Support: mean = 2.85, skewness = -0.35) and (Problem Solving: mean = 2.71, skewness = -0.183).

An exploratory factor analytical tool, using orthogonal varimax rotation, was used to determine the relative importance of these coping strategies used by the respondents. The suitability of the data for factor analysis was assessed before the conduct of the analysis. Inspection of the correlation matrix showed the presence of many coefficient of 0.3. The Kaiser-Meyer-Olkin value yielded 0.74, which is above the generally accepted value of 0.5 (Field, 2009). The value of the Bartlett's test of Sphericity was statistically significant at $p=.000$, supporting the factorability of the items. The approximate chi-square value was 223.54 with 45 degrees of freedom, which was also statistically

significant at the 0.05 alpha level (p-value =.000). Table 32 shows the KMO and Bartlett’s test for the factor analysis.

Table 32: *KMO and Bartlett’s test*

Kaiser-Meyer-Olkin measure of Sampling Adequacy	.747
Approximate chi-square	223.54
Degree of freedom	45
Bartlett’s Test of Sphericity	p-value .000

Source: Field survey (2017)

All the 10 items were included in the analysis. The factor loadings of all the factors were above the recommended value of 0.4 (Field, 2009), supporting the inclusion of all items in the analysis. Table33displays the factors and their factor loadings.

Table 33: *Factor Analysis for Job stress coping mechanisms*

Factor	Factor leading
Active coping	.671
Acceptance coping	.639
Emotional support	.749
Professional assistance	.545
Avoidance coping	.585
Problem solving	.615
Relaxation techniques	.694
Routine exercise	.649
Disengagement coping	.639
Social support	.693

Source: Field Survey (2017)

After the rotation, 4 factors emerged with Eigenvalues greater than 1. The first item had an eigenvalue of 2.05, explaining 20.57 percent of variance. The second item also had an eigenvalue of 1.62 with 16.25 percent of variance. The third item had eigenvalue of 1.43 and a variance of 14.32 percent and forth item, having an eigenvalue of 1.14 with a variance of 11.45 percent. Together, these 4 items shared a common variance and explained 62.59 percent of the total variance. Consequently the four coping mechanisms that emerged to have been used by the respondents to combat job stress were disengagement coping, active coping, acceptance and problem-solving coping styles.

Table 34: *Job stress coping strategies used by respondents*

Coping Strategy	Initial Eigen value	% of Variance Explained
Disengagement coping	2.05	20.57
Active coping	1.62	16.25
Acceptance coping	1.43	14.32
Problem solving	1.14	11.45

Source: Field survey (2017)

This result was in agreement with the findings of Prati, Palestini and Pietrantonio (2009). Using the factor analysis technique, the authors found active coping and disengagement coping mechanisms to be the most strategies used by the Italians emergency workers to combat job stress. Carver and Connon-Smith (2010) also discovered that people used more of active and disengagement coping styles in combating job stress. Though most studies

have found disengagement coping as one of the coping strategies people use, Najmir and Wegner (2008) claim that the strategy is ineffective and can have negative consequences on the individual. Carver and Connon-Smith (2010) observed that disengagement coping creates problems, such as excessive use of drugs and alcohol which can have serious health implications on the individual as well as general social problem.

As opined by Richardson and Rothstein (2008) job stress is a product within the work environment, therefore, workers alone should not be left with finding strategies to cope with it. Imeokparia and Ediagbonya (2013) suggest that every organisation should take steps to help workers to be able to cope with stress by putting in place stress management policies which will reduce the negative effects of job stress. Consequently, the study found out if there were any institutional arrangements or policies put in place to help manage staff's job stress. The quantitative result indicated that there were no such policies which focused on reducing job related stress or managing it. The study confirmed the quantitative outcome by the responses of some key informants.

Interviewer:

Please are there any stress management policies put in place to help staff reduce their job related stress?

Key informant:

There is nothing put in place for the past 12 years I have been here. But when the former Provost was around, about two years ago, he instituted a one-day off duty thing where staff had a day off within a month, to rest and attend to

personal matters. But when he left, this thing stopped so as at now, still there is no time to rest.

Another key informant also had this to say:

Very little, if noting, I remember when the former Provost (Prof. G.T.K. Odoru) was around, he initiated a strategy which I personally found to be good, but unfortunately, he never had support. The strategy was that, every month, a staff will have one day off. That one day off was planned in such a way that at least every staff will enjoy, but unfortunately, some staff abused the opportunity and so now there is nothing like that and so we are back to square one.

A third key informant also espoused this:

As a matter of fact, there is nothing concrete. We used to have a system where staffs were given a day off within the month. However, they abuse it so we decided to take it off. Some staffs were taking undue advantage to absent themselves from work. You see them today and you ask them why are you not at work, and they will tell you am off, tomorrow you see them, the same story so we realised things were getting out of hand and it affected the system so we decided to stop that day off thing. As at now there is nothing.

Obviously, it can be realised that in spite of the stressful work environment respondents find themselves, there are no concrete stress management policies put in place directed at helping staff to reduce their job stress and its associated effects.

Chapter summary

The chapter sought to investigate the job stress coping strategies adopted by CoDE's staff in reducing job related stress. In all, ten coping mechanisms were examined with descriptive statistics. An exploratory factor analysis, using orthogonal varimax rotation was used to identify the most important coping mechanisms used by CoDE's staffs. The findings showed that the most significant coping mechanisms employed by the staff of the College were active coping, acceptance coping, problem solving approach and disengagement coping. Further analysis to determine the stress management policies employed by management of the college to help the staff alleviate their job related stress proved that there are no concrete stress management policies at CoDE.

CHAPTER EIGHT

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this chapter is to present the summary, conclusion and recommendations of the study based on the research findings. This chapter is divided into six sections. The first section presents the summary of the study. This is followed by the key findings from the study. The third section discusses the conclusions, and the study recommendations. The next section presents the contributions of this study to knowledge and finally, areas for future research.

Summary

This research sought to examine the issue of job stress and its effect on human resource development at the College of Distance Education, University of Cape Coast. To achieve this, four specific objectives were set out to: explore the sources of job stress at the College; ascertain the levels of job stress among staff of the College; investigate the job stress coping strategies employed by staffs of the College and to analyse the effect of job stress on some components of human resource development (general health, wellbeing, capabilities and cognitive capacity).

A sample population of 223 staff were included in the study, using the census approach. The study employed a mixed method design with quantitative being the dominant method. Ten members were selected as key informants, while 213 were surveyed. Out of the 213 questionnaire administered, 171 were completed and returned, constituting 80 percent response rate. Data collection was done through the use of survey

questionnaire and interview guide. The Statistical Product and Service Solution (SPSS, version 21) software was utilised for data processing and analysis. All statistical decisions were made based on a default alpha level of 0.05, with a 95% confidence interval. Data were presented in tables by the use of frequencies and percentages. The major statistical analytical methods used included Pearson Chi-Square test, a Single Sample T-test, Descriptive Statistics, a Principal Component Analysis (Factor Analysis) and a Simple Linear Regression analytical tool. The summary of the key findings from the study is the focus of the next section.

Summary of key findings of the study

Sources of job stress at the College of Distance Education

The first objective was to explore the sources of job stress at the College of Distance Education, University of Cape Coast. A single sample T-test was conducted on a test value of 3.0 to identify the possible sources of job stress. All the variables were statistically significant at an alpha value of 0.05. To further identify the most contributing factors that cause job stress at the College, a Principal Component Analysis (PCA) test, using orthogonal varimax rotation was conducted. The factors that emerged to greatly contribute to job stress at the College were work demands, work overload and work-life conflicts. Even though other variables like unsafe working conditions, verbal abuse by clients, long hours of work and role ambiguity were also identified to contribute to job stress at the college, their contributions were not very strong.

Perception of work environment and levels of job stress in relation to staffs' demographic characteristics

The second objective of the study explored the perception of the work environment and to ascertain the levels of job stress among staff of the college. This objective was analysed using descriptive statistics. It was found that 60.8 percent of staff had moderate stress levels, while 22.8 percent have high stress levels. Further analysis was done to associate respondents' stress levels with their perceived work environment. The analysis revealed that 64.4 percent of those who perceive their work environment as very demanding had moderate stress levels, while 61.5 percent of those who perceived their work environment as extremely demanding were found to have high stress levels.

Using a Pearson Chi-Square test, the association between job stress levels and sex of staff was statistically significant. A Cramer's V Statistics however, showed a weak association. There was also a statistically significant association between respondents' job roles and their stress levels, with administrators emerging as the most stressed in the College. Finally, the study found that married people at the College have high stress levels compared to their unmarried counterparts.

Effect of job stress on the components of human resource development

The third objective was to examine the effect of job stress on four components of HRD, namely: general health, cognitive capacity, wellbeing and capabilities. A correlation matrix showed a significant inverse relationship between job stress and all the components of human resource development. A simple linear regression model that was utilised to examine the effect of job stress on these HRD components indicated that job stress inversely affected all

the components of HRD (Health, Cognitive capacity, Wellbeing and Capabilities). This means that an absence of job stress will enhance people's health, cognitive capacity, wellbeing and capabilities.

Job stress coping strategies by staff of the College of Distance Education

The final objective of the study was to investigate the job stress coping strategies employed by the staff of CoDE to combat job stresses. The coping strategies that were analysed were active coping, acceptance coping, emotional support, professional assistance, avoidance coping, problem solving strategy, physical relaxation, disengagement coping and seeking social support. An exploratory factor analysis was performed to identify the coping style employed by the staff of the College to combat job related stress. It was found that staff employ disengagement coping, active coping, acceptance coping and problem solving approach in combating their job related stress. Further analysis done to discover the stress management strategies adopted by the management of the College to help staff alleviate their job stress showed that, the little that management has done has failed to yield any positive results and has consequently been abandoned.

Conclusions

The following conclusions can be drawn from the findings of the study:

Most empirical studies have found a positive association between job stress and the demographic characteristics of individuals. Notwithstanding, this study only found significant association between job stress and characteristics like job roles, sex and marital status of respondents. The study did not find any significant association between job stress and age, educational

levels and job experiences of respondents, thus the Transactional Theory of stress was not confirmed in this study.

Additionally, it can be concluded that most of the staff from the College either have moderate stress levels or high stress levels. Thus, the study failed to reject the first hypothesis, which stated that, high job demands are associated with high job stress levels. Females were found to have higher stress levels than males. Married people were more stressed than those who were not married. The category of job roles that were reported to have high job stress levels were administrators, followed by drivers of the College. The most contributing factors accounting for staff job related stress were the demanding nature of their job, work overload and work-life conflict. Though factors like verbal abuse by clients, long hour of work, unsafe working conditions and role ambiguity were also found to contribute to job stress at CoDE, their contributions were not strong enough.

Further, staff of the College of Distance Education, University of Cape Coast do not engage the services of professional counsellors in helping them solve their job related stress. Most of the staff employ coping strategies like disengagement, active, problem solving and acceptance to help them cope with the job stresses that come up in the performance of their job roles. The management of the College do not have any stress management policies in place to help staff reduce their work related stress.

Although, some empirical literature has posited a positive effect of job stress on human resource development, this study discovered a significantly negative effect of job stress on all the components of human resource development that were analysed (health, cognitive capacity, wellbeing and

capabilities). Therefore, the study again failed to reject the second hypothesis that; high job demands significantly affect staffs' health, capabilities, wellbeing and cognitive capacities.

Recommendations

The following recommendations are directed towards the staff of CoDE and the Advisory Committee, who is responsible for the management and implementation of policies at the College of Distance Education, University of Cape Coast.

To the staff of CoDE:

The findings of the study showed that staff of the College use a less effective job stress coping mechanisms in the combat against job stressors. Staff are advised to use more effective coping strategies like social support, professional counselling and routine exercise, because of the benefits they have. For instance, routine exercise has been found to have a lot of psychological as well as physical health benefits.

It was identified that married workers at CoDE have higher job stress levels than unmarried ones. It is therefore suggested that, married people should take advantage of the social support systems like their spouses, children, friends, other family members available to them, since social support systems are very good strategies in dealing with job stress.

To the Advisory Committee (AC) of CoDE:

Based on the finding that work demand, work overload and work-life conflict greatly contribute to job stress at CoDE, it is recommended that AC will provide flexible work schedule that will reduce some of the demands or burdens on staff and provide them with some opportunity to attend to other

personal and social responsibilities. This can be done through the use of emerging technology, such as teleconferencing and videoconferencing which make teaching and learning effective with students who are not physically present. The regional centres are also recommended to be adequately resourced to handle some of the monitoring activities within the regions to avoid staff having to travelling extensively from Cape Coast for monitoring purposes.

In addition, the Advisory Committee (AC) should see to it that staff have adequate education through seminars and workshops to help them identify job stressors and know how to manage them. The AC is also advised to conduct periodic job stress audit in the various units and department to identify the most stressful areas of the job and assist those staff who would be at risk.

The study found that most of the staff have either moderate job stress levels or high job stress levels. There is empirical evidence that high stress levels are associated with certain diseases like hypertension, diabetes, insomnia and forgetfulness. Therefore, it is recommended that AC will sponsor periodic health screening programmes to identify those staff who may be at risk of these job stress related diseases in order to assist them.

There should be a more effective stress management policies designed to support staff in the combat of their job stresses since job stress has negative effects on the development of human resources at CoDE in the areas of staff' health, their wellbeing, staffs' capabilities and their cognitive capacity. This can be done through the provision of employee assistance programmes and guidance.

Adequate rewards and other incentives should be provided for staff and moral and material support should be extended to staff who have social and financial problems in order to increase their job satisfaction and performance. AC is also advised to promote work-life balance initiatives to reduce job stress. This can be in the form of organised trips for staff to relax their minds and bodies and initiate physical fitness or sports games on regular basis.

Implications for Policy making

- The effects of the demanding nature of job at the College of Distance Education has serious implications on teaching, research and the provision of quality services to stakeholders.
- This study can serve as a guide to the formulation and implementation of policies with respect to job stress management at the College.
- Some of the assumptions of the Transactional Theory of Stress failed to be true in the Ghanaian context. This study did not find significant association between demographic variables and job stress, except with sex and job roles.

Contribution to knowledge

The contributions of this research to knowledge stem from two angles: empirical and methodological. Empirically, most studies on human resource development have looked at developing people through the creation of a learning culture and the formulation of organisational and individual learning strategies. Thus many of these studies have looked at the organisational development point of view, neglecting the human development aspect, though both seek to enhance resource capability in accordance with the belief that an organisation or a nation's human resources are the major source of

competitive advantage. This study has looked at some components of human resource development that enhance the development of individuals in their quest to be productive resources to improve the performance and competitiveness of their organisations. Moreover, studies on job stress conducted in tertiary institutions have mainly concentrated on the sources or determinants. This study has gone afar to look at the possible effects of job stress on the development of individual as productive resources. Thus this study may serve as a road map to other related studies, providing empirical literature for such future studies.

Methodologically, most studies on human resource development have utilised the qualitative method of inquiry in solving their research problems. Moreover, job stress studies have also employed either the qualitative or the quantitative research method in most of the studies. Those studies that have used the quantitative method measured their study variables in an ordinal manner, (that is ordinal scale variables), though the use of ordinal scale in such studies has been criticised as not being enough to allow for rigorous statistical operations. This study employed a multi-dimensional approach by using both the quantitative and the qualitative methods of inquiry in analysing the research problem. Another methodological contribution of this study is the use of an interval scale measurement in the measurement of the study variables, thus making it possible to perform rigorous statistical operations.

Areas of further research

Based on the findings of the study, further research could be conducted to examine the effect of job stress on other components of human resource development like training and development, organisational and individual

learning, career development and employee performance. Future studies could also be extended to look at job stress at the whole university and the strategies workers employ in combating it.

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APPENDICES

APPENDIX A

LETTER OF TRANSMITTAL

UNIVERSITY OF CAPE COAST
INSTITUTE FOR DEVELOPMENT STUDIES
CAPE COAST.

Dear Sir/Madam,

I am a PhD student at the Institute for Development Studies, University of Cape Coast. Currently, I am conducting a research to examine the **EFFECT OF JOB STRESS ON HUMAN RESOURCE DEVELOPMENT AT THE COLLEGE OF DISTANCE EDUCATION, UNIVERSITY OF CAPE COAST**. This research is purely for academic purpose and is part of the requirements for the award of the degree. The result of the study is expected to form the basis for formulating and implementing effective stress management strategies for staff of the College of Distance Education, University of Cape Coast.

I will be most grateful if you could take time off your busy schedule to answer this questionnaire. You are assured that any information provided will be treated with utmost confidentiality and will be used for academic purpose only. If you need further clarification you are free to contact me on 0202121999. Thank you for your cooperation and time.

DAISY OFOSUHENE

APPENDIX B

QUESTIONNAIRE

SECTION A – JOB STRESS INVENTORY

1. How would you generally describe the working environment of CoDE?

Extremely demanding

Very demanding

Moderately demanding

Not at all demanding

2. Have you been diagnosed of any of these diseases?

Please tick (√) as many as applicable

Disease

For how long (in months)

High blood pressure

Depression

Asthma

Diabetes

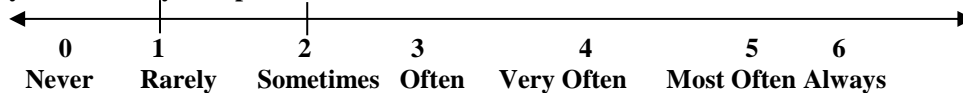
Headache

Forgetfulness

Sleeplessness

Using
the scale
provided
, 0 - 6,
please
tick (√)
the
frequency with which you experience the ff:

| Numbness in any part of | | |
the body



Frequency **0 1 2 3 4 5 6**

How often do you find your work demanding?

How often do you feel used up at the end of the day's
job

How often do you take work home to complete?

How often do the demands of your job interfere with your social and family life?

How often do you take alcohol or any drug to help you relax?

How often do you have troubles falling asleep?

How often do you feel muscular pains especially in the neck, back and shoulders?

How often do you take pills to enable you to sleep?

How often do you wake up in the morning feeling tired even after enough sleep?

How often do you feel your job is negatively affecting your physical or emotional wellbeing?

How often do you perceive the conditions of your work as unpleasant or unsafe?

How often do you find life disinteresting?

How often does your job expose you to verbal abuse by your clients?

How often do you work for more than 8hrs in a day and 40hrs in a week?

How often do you influence work policies, procedures and performance in your unit?

How often are you given training on new procedures of work?

How often do you observe your annual leave?

How often do you miss meals because of your busy schedule?

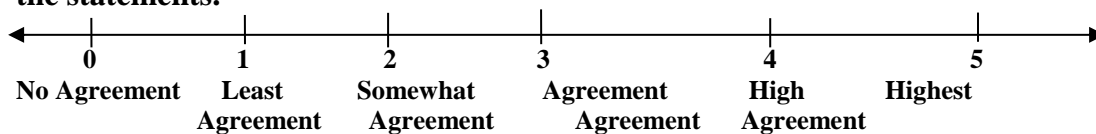
How often do you work on your hobbies?

How often do you watch TV as a form of entertainment?

SECTION B – COPING MECHANISMS AND STRESS MANAGEMENT STRATEGIES

What actions do you take when you are confronted with very demanding work situations?

Using the scale provided 0 – 5, please indicate your level of agreement to the statements.



Stress Coping Mechanisms for individuals	0	1	2	3	4	5
I confront the situations by taking appropriate action.						
I accept the situations as they are and try to adjust.						
25. I share my feelings with a friend or relative.						
I consult a professional counsellor when am unable to deal with such situations.						
27. I ignore those situations and pretend that they do not exist.						
28. I look at those situations as opportunities.						
29. I follow a relaxation programme every day to help relax me.						
I follow a planned exercise programme for 20mins or more at least 3 times per week (walking, jogging, aerobics, dancing, cycling and swimming).						
I avoid being with people when am confronted with demanding work situations.						
I rely on colleagues and friends to help me handle such situations.						

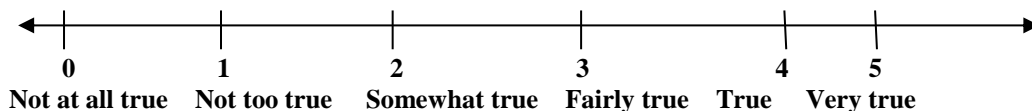
Institutional Stress Management Strategies

33. Tasks are clearly defined for me to						
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understand my job roles.						
I get adequate orientation whenever there are new work processes.						
Counselling services are available at work to help me solve my problems.						
I receive fair payment for extra work done.						
Management at least once a year takes staff to resort centres for recreation and relaxation.						
Workshops are organised at least once per semester to educate me on how to manage my stress						
Management conducts risk assessment at least once a year to identify the most stressful areas of my job.						
Keep fit activities are organised at the workplace at least once every month.						
Management organise health screening exercise at least twice a year to monitor my stress level and other health related issues.						
I have the opportunity to participate in decisions and actions that affect my job.						

SECTION C – Human Resource Development

Using the scale provided 0 – 5, please indicate the extent to which the following statements are true or not true.



General Health and Wellbeing	0	1	2	3	4	5
I feel my job is negatively affecting my physical and emotional health.						
I find myself eating or talking excessively than usual.						

I feel sick but can't explain exactly what is wrong with me.						
I get tired with the slightest activities.						
I go to the hospital at least once in every month due to health problems.						
I experience numbness or tingling in my arms or legs.						
I have lost interest in personal hobbies outside work.						
No matter how much I sleep, I wake up feeling tired						
I have troubles falling asleep						
I experience pains especially in the neck, back and shoulders						
Capabilities						
The work pressure on me has enabled me to develop new and effective ways of solving problems.						
Generally am able to work better under stressful conditions						
I don't get the opportunity to develop my own special abilities.						
Am not able to work as I should due to constant tiredness.						
Generally am unable to complete the day's work and have to push it to the next day.						
I have lost desire in sexual activities.						
I have flexible work schedule which enables me to develop my career.						
Cognitive Capacity						
Am so much bothered on trivial issues.						
At home, I spend more time alone watching TV than being with family or friends talking together.						
I have problems making concrete decisions.						
Am not able to concentrate well on what I do.						

I feel irritated and angry with no apparent reason.						
Am not able to plan my life as I should						
I easily forget things						
I feel like I can't really trust anyone						

SECTION D – STAFF DEMOGRAPHIC CHARACTERISTICS

Please indicate the appropriate box that corresponds to your answer.

68. How old are you?
69. What is your sex?
 Male Female
70. What is your marital status?
 Married Single Separated Divorced Widowed
71. How long have you worked with the College of Distance Education (CoDE)?
72. What is your level of education?
 Secondary Diploma 1st Degree Masters PhD
 Others (please specify)
73. What is your job rank?
 Junior Staff Senior Staff Senior Member
74. What is your job role?
 Lecturer Administrator Driver Clerical
 Technician Messenger/Cleaner
75. You are currently with CoDE as a
 Full time staff Contract National service person

APPENDIX C

INTERVIEW GUIDE FOR KEY INFORMANTS

- i. How would you generally describe the working environment of CoDE?
- ii. Have you had complaints from staff?
- iii. Do you think the complaints are as a result of stress?
- iv. How often do management conduct stress audit?
- v. Do you have employee assistance programmes put in place to alleviate staff stress?
- vi. What are the components of such employee assistance programmes?
- vii. What strategies has management put in place to ensure stress free working environment in CoDE?

