HEALTH IMPLICATIONS OF WORK-RELATED STRESS AMONG ACADEMIC STAFF OF TERTIARY INSTITUTIONS IN KATSINA STATE

BY

EZENKIRI, NWANKWO JUSTIN

SPS/12/MHE/00021

BEING A DISSERTATION SUBMITTED TO THE DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION, FACULTY OF EDUCATION, BAYERO UNIVERSITY, KANO, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE (M.Sc.) DEGREE IN HEALTH EDUCATION

SUPERVISOR:

Dr. A. I. HASSAN

APRIL, 2016.

DECLARATION

I hereby declare that this work is the product of my own research effort; undertaken under the supervision of Dr. A. I. Hassan. I also declare that to the best of my knowledge, it has not been presented and will not be presented elsewhere for the award of any degree or certificate. All sources have been dully acknowledged.

Sign ----------Date----------

Ezenkiri, Nwankwo Justin

(SPS/12/MHE/00021)

CERTIFICATION

This is to certify that the research work for this dissertation and subsequent preparation of this dissertation by Ezenkiri, Nwankwo Justin (SPS/12/MHE/00021) were carried out under my supervision.

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Dr. A. I. Hassan	Dr. A. I. Darki
(Supervisor)	(Head of Department)

APPROVAL PAGE

This research report has been read and approved for the award of Master of Science Degree (M.Sc.) in Health Education in the Department of Physical and Health Education, Bayero University, Kano.

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Prof. (Mrs.) A. M. Suleman

(External Supervisor) Date

---------- ----------

Prof. O. O. Oyerinde

(Internal Examiner) Date

---------- ----------

Dr. A. I. Hassan Date

(Supervisor)

---------- ----------

Dr. A. Darki

(Head of Department & Chief Examiner) Date

---------- ----------

Dr. Y. U. Haruna

(Faculty of Education Rep. to SPS Board) Date

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ABSTRACT

This study investigated health implications of work-related stress among academic staff of tertiary institutions in Katsina State. Four hypotheses were tested in this study which included one major hypothesis and three sub-hypotheses. Descriptive survey research design was used for this study. The population of this study consisted of all academic staff from thirteen existing tertiary institutions in Katsina State (2,036) as at 11th March, 2015, while the target population was one thousand, six hundred and thirty nine (1,639) from five government owned tertiary institutions, using purposive sampling technique. Therefore, from the target population, a sample of 328 academic staff was drawn, using proportionate stratified sampling technique. A self-developed questionnaire named Health Implications of Work-related Stress Questionnaire (HIWRS-Q) of five points Likert scale was used as instrument for data collection. The questionnaire was validated by five lecturers from the Department of Physical and Health Education and a reliability index of 0.75 was obtained. Three hundred and twenty-eight questionnaires were administered, duly filled and returned. Data collected were subjected to frequency counts and percentage for the demographic data of the respondents. Chi-square, t-Test and Analysis of Variance (ANOVA) were used to test the hypotheses at 0.05 level of significance. The results of this work revealed that 85 (26%) of the respondents did not experience work-related stress, while 243 (74%) of them experienced work-related stress in tertiary institutions in Katsina State. Similarly, 105 (32%) of the respondents experienced positive health implications of work-related stress while, 223 (68%) of the respondents experienced negative health implications of work-related stress. There is significant health implication of work-related stress among academic staff of tertiary institutions in Katsina State 0.05). Work-related stress experienced by academic staff in tertiary institutions in Katsina State 0.05). There is significant difference in the health implication of work-related stress among 0.05). There is no significant difference in the health implications of work-related stress among 0.05). And there is significant difference in the health implications of work-related stress among 0.05). The implication of these findings is that if the academic staff in Katsina State tertiary institutions work under healthy environment and good working conditions, they will experience lesser health implications of work-related stress. Therefore, it is recommended among others that the lecturer-studPent ratio (that is the Benchmark Minimum Academic Standards; in Science use to be 1:20, Engineering 1:15, Medicine 1:10, Vetenary Medicine 1:10, Pharmacy 1:10, Management Science 1:30, Agricultural Science 1:15, Environmental Science 1:15, Social Science 1:30, Law 1:30, Art 1:30, Education 1:30 and Administration 1:30) according to National Universities Commission and other academic regulatory bodies should be strictly adhered to in all tertiary institutions in Katsina State for optimal health of the teaching staff.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Health implication can be seen as a neutral health index which is dependent on the human mind-set and factors that influence it to be either positive or negative. Based on this notion, Answers (2008), stated that health implication means negative effect on one's health following some factors such as smoking, poor recreation condition and under nutrition. Health implication can be seen as health problems such as headache, insomnia, joint pains, eye problems, depression, unhappiness and poor mental coordination that can be as a result of work-related stress in this context. Following this impression, Hinneh, Kwaku and Gyaki (2014), asserted that lectures are exposed to health implications such as anxiety, and general ill-health from their job.

Sonja, Lukas and Dean (2010), identified depression, anxiety and elevated blood pressure as health implications associated with work-related stress among workers especially teaching staff of higher institutions. Egu, Ogbonna, Obike and Obiuto (2014), termed health implication to be health hazards such as high blood pressure, heart diseases, stoke, ulcer, body pain, persistent headache and illnesses that could come as a result of work-related stress. Health implications such as miscarriages, asthma, obesity, chest pains, diabetes, depression, anxiety, heart attack, eye problems, fear, headache, sleeping difficulty and anger are common among workers due to occupational stress (Communication Workers of America, 2001; Shute, 2007; Ukwayi, Uko & Udida, 2013; Sujit, 2014)

Work-related stress is at an alarming rate in this generation (this jet-age), in which everything is moving at a higher pace. This high pace of things has made work more stressful and also placed a great deal of demand on workers thereby exerting unbearable pressure on their health especially academics in higher institutions. Purna and Gowthami (2011), stated that along with the improvement and development of information, competitiveness among people has

become increasingly intense; hence, people are becoming busier than ever before. This situation of being extremely busy can result in health problems like high blood pressure, poor mental articulation or co-ordination, gastrointestinal problems, eye malfunctioning and insomnia, among others (Dunham, 1992). Harvey (2009), observed that stressful work related conditions are linked with many health implications among employees in developing countries such as Ghana, Nigeria, Tanzania and others. In Nigeria, premature death among academic staff is at the peak (Benjamin, 2003). Benjamin further stated that the death rate is presumed to be as a result of health implications of work-related stress among workers in the country, particularly those in academics.

Work-related stress can be referred to as harmful physical and emotional responses that occur when the demands of the job do not match the capabilities and resources or needs of the workers (Centers for Disease Control and Prevention, 1999). According to Workplace Health and Safety (2014), work-related stress can be seen as the physical, mental and emotional reactions of workers who perceive that their work demands exceed their abilities and resources.

Generally, the evolution of stress is attached to work and work pressure; it is unavoidable, inescapable and inevitable experience of life which cuts across all human race and gender (Health and Safety Executive, 2002). A research report from Health and Safety Executive (2002), indicated that about half a million people in the United Kingdom experience work-related stress at a level they believe is making them ill. It added that up to five million people in the United Kingdom (UK) feel “very” or “extremely” stressed up by their work. It also showed that stress-related illness is responsible for the loss of substantial working days each year; and costs the society about 3.7 billion pounds every year. Tim Field Foundation (2004), added that

UK, United States of America, Canadian, and Australian teachers are number one work group experiencing stress-increase in their school jobs.

Going by the lecturer-students ratio, according to National Universities Commission (NUC) of Nigeria (2007), the Benchmark Minimum Academic Standards in Science use to be 1:20, Engineering 1:15, Medicine 1:10, Vetenary Medicine 1:10, Pharmacy 1:10, Management Science 1:30, Agricultural Science 1:15, Environmental Science 1:15, Social Science 1:30, Law 1:30, Art 1:30, Education 1:30 and Administration 1:30. Meanwhile, Teacher Registration Council of Nigeria (2010), stated that the ratio of lecturer to student shall be 1:25 in Postgraduate Diploma In Education (PGDE). Similarly, National Commission for Colleges of Education (NCCE) (2012), recommended lecturer-students ratio to be 1:25. Arubayi (2009) stated that lecturer-student ratio varies from one discipline to another at the tertiary school level. He added that disciplines such as medicine and engineering are expected to have a ratio of 1:9 for the science, 1:12; the social sciences 1:20 and education and humanities 1:23, but these recommendations are not so in Nigerian tertiary institutions.

However, it is observed that the tertiary institutions in Katsina State are over populated with students (Bala, 2013). Instead, Bala (2013), reported that teacher-student ratio in tertiary institutions in Katsina State is estimated to be 1:500. Following the population explosion in tertiary institutions in Katsina State, Egu et al. (2014), reported that the demand for education has become high; this results in over admission in most of the Polytechnics and Colleges of Education leading to over population.

However, excessive work-load is presumed to be an index of lecturers' greatest stressor (Nhs, 2014). Besides, there are others such as job insecurity, attending long span meetings and

meeting deadlines in submitting results and official reports such as reports on conduct of semester examination, project supervisions, frequent examination invigilation without intervals, lack of cordial relationships among others. Onyeizugbe, Anazodo and Agbionu (2012), supported the assertion that lecturing is not only a hard work, but can be full of stress. They added that pressure due to school reform, inadequate administrative support, poor working conditions, poor remuneration, poor infrastructural facilities, the burden of continuing research and lack of resources are all identified stressors to the lecturers in Nigerian tertiary institutions. It is noted that lectures are not completely satisfied with their working environment (Smith, 2007; Sujit, 2014). According to Bala (2013), the new Federal and private universities and those established by the State governments across Nigeria had absorbed most of the lecturers from old institutions. It is on this ground that the researcher was motivated and carried out this research on health implications of work-related stress among academic staff of tertiary institutions in Katsina State.

1.2 Statement of the Problem

Teaching staff of higher institutions are equated with healthy well-being and lifestyle (Ogden, 2004). He further stated that lecturers maintained wellness following the attractive packages and advantages attached to their job such as less workload, provision of office and residential accommodations, research grants, and opportunities to travel overseas for conferences and workshops. The National Commission for Colleges of Education (2012) stated in its guidelines that the ideal teacher-student ratio is 1:25. This is seen as work stress-free situation believed to be ideal. In the same plane, Egu et al. (2014), itemized the packages that should be attached to academic job as follows: longer service tenure (65-70 years), sabbatical leave, contract opportunities after retirement, light work load, trip to overseas for study and

conferences, provision of office and residential accommodations, free medical services and free education for their children at primary as well as secondary schools which are not often the case.

However, Lecturers are now battling with numerous health problems namely, ulcer, depression, anger, high blood pressure, heart and eye problems owing to several work-related stressors commonly associated with faculty staff (Taris, Scheurs & Van Iersel-Van Silfhout, 2001; Winefield & Jarret, 2001; Winter & Sarros, 2002; Tytherleigh et al., 2005; Barkuizen & Rothmans, 2008). This is not surprising as the higher educational sector is now regarded as a working environment that has become increasingly more stressful and psychologically demanding due to multiple triggers for stress-related illness (Kinman, 2001; Windfield & Jarret, 2001). In a comprehensive study by Tytherleigh, Webb, Cooper and Ricketts (2005), examining occupational stress in higher education institutions, it was concluded that universities are no longer providing the stress free working environment they once had.

It is observed by the researcher that academic staff in higher institutions in Katsina State are exposed to conditions that may lead to stressful condition. These include regular, sandwich and summer programmes they offer annually which tied the academic staff down. It is observed that many of the attractions and advantages such as light work-load, provision of office and residential accommodations in academic environment have been eroded over the past two decades and it comes as a surprise that higher education institutions are now commonly labelled as “stress factory” (Barkuizen & Rothmans, 2008). In Nigeria, Katsina State to be precise, academic staff in tertiary institutions are now subjected to stress such as meeting deadlines in submitting examination results, changes in methods and approaches of teaching, innovations such as introduction of computers, unbearable work-loads, campus militancy, accommodation problems, and many others.

It is observed by the researcher that lack of enough time to mark students' examination scripts and assignment, environmental noise which could be unwanted sound like protest and idle talks, poor ventilation from enclosed offices, lecture and examination halls, excessive paper-work of writing lecture notes, conference papers, and administrative duties of being an examination officer, head of department and level coordinator are some of the challenges faced by academic staff of tertiary institutions in Katsina State. These challenges may result to large number of health consequences that may affect them physically, socially and emotionally. Moreover, Bala (2013), observed that there is an excessive work-load and increasing hours of work arising from the dearth of teachers in the institution making teacher-student ratio to stand at 1:500, causing most students to squat on bare floor or hang on windows during lectures. These circumstances compound stress on academic staff who are working in tertiary institutions in Katsina State and as such, it may affect their health negatively.

It is against this background that this study was carried out in order to investigate the health implications of work-related stress among academic staff of tertiary institutions in Katsina State. This study was carried out in an attempt to answer the following questions:

1. Do academic staff experience work-related stress in tertiary institutions in Katsina State?
2. Do academic staff experience health implications as a result of work-related stress in tertiary institutions in Katsina State?
3. Will there be a difference in the health implications of work-related stress among academic staff of tertiary institutions in Katsina State based on institutional ownership?
4. Will there be a difference in the health implications of work-related stress between male and female academic staff of tertiary institutions in Katsina State?

5. Will there be a difference in the health implications of work-related stress among academic staff of tertiary institutions in Katsina State based on their status?

1.3 Hypotheses

The following hypotheses were formulated to guide the study.

Major Hypothesis

1. There is no significant health implication of work-related stress among academic staff of tertiary institutions in Katsina State.

Sub-Hypotheses

H_{01} Academic staff in tertiary institutions in Katsina State do not significantly experience work-related stress.

H_{02}. There is no significant difference in the health implications of work-related stress among academic staff based on institutional ownership in Katsina State.

H_{03}. There is no significant difference in the health implications of work-related stress between male and female academic staff of tertiary institutions in Katsina State.

H_{04}. There is no significant difference in the health implications of work-related stress among academic staff of tertiary institutions in Katsina State based on their status (rank).

1.4 Purpose of the Study

This study investigated health implications of work-related stress among academic staff of tertiary institutions in Katsina State with the view to suggest effective ways in reducing health problems that are related to their work.

1.5 Significance of the Study

It is envisaged that the findings of this study would:

- Benefit academic staff of tertiary institutions in Katsina State as well as all other tertiary institutions in Nigeria who will be more able to point out work-related stressors and their health implications.

- Pave way for future researchers hoping to undertake studies in the area by updating their knowledge on work-related stress through increasing general literature in the area of study.

- Assist the Academic Staff Union of Universities (ASUU), Academic Staff Union of Polytechnics (ASUP) and Colleges of Education Academic Staff Union (COEASU) in Nigeria to negotiate or reject conditions that are not favourable for the health of employees under the umbrella of the unions before the governments and probably, the owners of tertiary institutions in Katsina State and the country at large.

1.6 Delimitation of the Study

The study was delimited to health implications of work-related stress among academic staff of tertiary institutions in Katsina State. The study was delimited to two universities, one polytechnic and two colleges of education owned by State and Federal governments. These include Umaru Musa Yaradu'a University, Federal University, Dutsin-Ma, Usman Hassan Katsina Polytechnic, Federal College of Education Katsina, and Isa Kaita College of Education,

Dutsin-Ma. Also, it was delimited to academic status (rank) that is graduate assistant/assistant lecturer, lecturer III-I and senior lecturer and above, gender and institutional ownership (State or Federal).

1.7 Operational Definition of Terms

i. **Health implication:** Ill-health conditions emanating from work pressures among academic staff of tertiary institutions such as: ulcer, hypertension, poor mental coordination, anxiety, anger, depressions, miscarriages, stomach upsets, isolation, eye problems/fatigue, body pains, loss of sexual interest, sleeping difficulties among others.

ii. **Work-related stress:** difficulties such as marking students' assignment and examination scripts and meeting deadline in submitting examination results for moderation encountered while undergoing staff primary assignment in tertiary institutions.

iii. **Positive health implication:** exciting health conditions coming from work among academic staff of tertiary institutions such as joy, happiness, agility, strength, passion, willingness and good self-esteem. This is group of eutrsess which encourages health.

iv. **Negative health implication:** health problems such as hypertension, poor mental coordination, anxiety, anger, depressions, miscarriages, stomach upsets, isolation, eye problems/fatigue, body pains, loss of sexual interest, sleeping difficulties due to difficulties like marking students' assignment and examination scripts, meeting deadline in submitting examination results for moderation and administrative job such as registering students. This is group of distress which affects health.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This study was carried out to investigate health implications of work-related stress on academic staff of tertiary institutions in Katsina State. Related literature was reviewed under the following sub-headings:

i. Overview of Work-related Stress;
ii. Health Implications of Work-related Stress;
iii. Work-related Stress and Its Health Implications among Academic Staff in Tertiary Institutions;
iv. Factors Affecting Work-Related Stress;
v. Coping Strategies of Work-Related Stress and
vi. Summary.

2.1 Overview of Work-related Stress

Human being is a unique and peculiar creature with an endless ambition. In quest and pursuit of this ambition, man formulated organizational rules so as to achieve his ambition in a space of time. This time of achieving the aim depends on him alone. He therefore positions his mental and physical abilities towards his set down goals. It is on this platform that man engages in work for numerous purposes such as socio-economic and healthy living most importantly. These are not all that impossible to achieve in one's life, but difficult most often. This is for the fact that work requires time, energy; one's total physical, emotional and mental attention. This perhaps indicates that work is not an easy task. Impressively, Barry (1998), stated that work is often a highly stressful part of life. In analysis of what Barry stated, one can truly see that work

and stress are substantially correlated; that is why they can be coined as 'work-related stress'. Work is merely challenging task, but it is related to stress and becomes stressful only when its demands are unhealthy and unbearable to the workers' state of health.

Work-related stress can be seen as man's unpleasant physical and emotional reactions due to his job's demands that do not match and operate at his natural capacities and frequency levels. Work-related stress arises when work demands of various types and combinations exceed the person's capability and capacity to cope (Better Health Channel, 2012). In the same plane, Ukessay (2014), regarded work-related stress as an occupational stress – as the strain to which people are subjected when demands and expectations are out of keeping with their capabilities and skills.

In other words, stress which accompanies work is not always negative, but positive some times. It is on this assertion that Centers for Disease Control and Prevention (1999), reported that the importance of challenge in people's work-lives is when they say "a little stress bit stress is good for you". Nwamara, Ezekwesili and Obi (2001), buttressed the point by noting that it is important to note that not all stress is harmful; at moderate level (eustress), it has a protective and adaptive function, and at a higher level though (distress), the stress response causes pathological changes and even death.

Furthermore, anything that has life and death perhaps has life and risk factors associated with it (Azubuike, 2005). In the same manner, health cannot be threatened in the absence of provoking and irritating agents. Therefore, work-related stress cannot operate in isolation without inducing factors. These threatened normal health condition of workers by causing disorganization to the body system natural orderliness or homeostasis. Azubuike (2005), pointed

that stimuli that can do this alteration are called stressors. In giving meaning to stressors, Okafor and Okafor (1998), saw them as ordinary circumstances and events that produce disruption in mind-body harmony. University of Cambridge (2013) specifically defined work-related stressors as the events that cause work-related stress. In addition, work-related stressors can be seen as provoking stimuli and forces like work-overloads which make work to become stressful and un-approachable, resulting to ill-health. Tytherleigh et al. (2005), supported the idea and perceived work-related stressors as:

- overload, control (lack of involvement in decision making);
- work-relationships (poor relationships) with colleagues and supervisors which can be a potential sources of job stress; pressures, job insecurity;
- work life balance (over-demanding and inflexible work schedules or work interfering with home/personal life); and
- resources and communication (feedback on performance and equipment to do the job, lack of pays and benefits), and aspects of the job (poor physical working conditions).

Barry (1998), outlined the major sources of stress in packages such as life changes, hassles, job settings, home life, and acculturation. The sources/risk factors of stress are many. Brian (2013), opined that stressors can be broken into internal and external stressors or a mixture of both. All these stressors can be filed into the major life events and daily hassles and these can influence health negatively.

When situations or work is out of control, stress sets in without measure. This hit hard on the health status quo of the workers resulting to ill-health. According to Sharma (2014), job stress leads to poor concentration, anger, body irritability, poor mental co-ordination, suicide and

subsequently violence. He also maintained that stress is the reason for two –thirds of the total visits to the physician. It is also the leading cause of the coronary artery diseases, cancer, accidents and respiratory diseases besides some others (Sharma, 2014). It actually kills.

Probably, gender differences on stress exist and proved to be a standard. Study carried out by Lawless (1992), revealed that women suffered 15 % more stress related illnesses than men do. As gender differences seem to standing, it is appealing to include host factors as an attribute that gives workers hope against job stress. Host factor therefore can be seen as individual bio-makes which make him vulnerable to diseases or resist diseases. People react to situations or drugs differently irrespective of age, and gender. Possibly, the same thing happens in stressful conditions. Following this idea, David (1993), asserted that a situation that is stressful to one person might not be stressful to another. He further cited that individual with high self-esteem and a tolerance for ambiguity are less prone to stress-related illnesses.

Briefly, Unachukwu (1997), posited that not everyone reacts to the same situation in a stress affects us and how we cope with it depends on a number of factors, including our biological and physiological make-up. The supportive authorities above proved it that one's choice is another person's dislike meaning that host factor has genetic evolution. Nwamara et al. (2001), said that one thing about stress is the fact that the effects of the environmental or physiological demands on the individual are dependent on how he/she perceives the demands. Reactions to stress therefore depend largely on the individual's personality and emotional make-up and not the nature of the activator (Ene, 2004). Hendel and Horn (2008), opined that potential stressors are not inherently sever or negative; individual differences in cognitive appraisal and coping style allow for the same stressors to be experienced by some as a challenge and others as

a hindrance. Also, Brian (2013), posited that it is important to bear in mind that stress is an individualistic, subjective experience and therefore what one finds stressful another may not.

2.1.2 Physiological ideas behind work-related stress and human health

The body system is affected by work-related stress. In this impression, Harvey (2009), asked if stress at work kills, and how does it happen? The human stress response involves a complex signaling pathway among neurons and somatic cells (Michael, 2011). Despite the complexity of the responses, Auerbach and Gramling (2009), answered the question through explanation of physiological ideas between stress and disease on set in human body. They explained that when a person appraises an event as stressful, the body undergoes a number of changes that heighten physiological and emotional arousal. First, the sympathetic division of the automatic nervous system is therefore activated. The sympathetic division prepares the body for action by directing the adrenal glands to secrete the hormones epinephrine (adrenaline).

Moreover, Michael (2011), stated that corticotropin-releasing hormone (CRH) a short polypeptide, is transported to the anterior pituitary, where it stimulates the secretion of corticotropin. Consequently, corticotropin stimulates increased production of corticosteroids including cortisol, the primary actor directly impacting the stress response. Vasopressin, a small hormone molecule, increases re-absorption of water by the kidney and induces vasoconstriction, the contraction of blood vessels, thereby raising blood pressure. Simultaneously, CRH and vasopressin activate the hypothalamic-pituitary-adrenal (HPA) axis. The HPA axis comprises the system of feedback interaction among the hypothalamus, pituitary gland and adrenal glands.

In response to all these chemical or hormonal reaction, the heart begins to beat more rapidly, muscle tension increases, blood pressure rises, and blood flow is diverted from the

internal organs and skin to the brain and muscles. Breathing speeds up, the pupils dilate, and perspiration increases. This reaction is sometimes called the fight –or- flight response because it energizes the body to either confront or flee from a threat.

According to Michael (2011), the hypothalamus releases CRH and vasopressin, which activate the HPA axis. CRH stimulates the anterior pituitary to release corticotropin, which travels through the bloodstream to the adrenal cortex, where corticotropin then up-regulates cortisol production. Vasopressin, and the other hormone secreted by hyperthalamus, stimulate the cortisol collecting ducts of the kidney to increase re-uptake of water, resulting in smaller volume of urine formed.

Auerbach and Gramling (2009), added that stress response involves the hypothalamus and the pituitary gland, parts of the brain that are important in regulating hormones and many other bodily functions. In times of stress, the hypothalamus directs the pituitary gland to secrete adrenocorticotropic hormone. This hormone in turn, stimulates the outer layer, or cortex, of the adrenal glands to release glucocorticoids, primarily the stress hormone cortisol. The cortisol helps the body access fats and carbohydrates to fuel the fight -or- flight response. Going by the impression, cortisol as a hormone can accelerate ageing process. This is one of the numerous effects of work-related stress. Rosalind (2005), adhered strictly that that stresses cause cortisol levels to remain elevated for sustained period and this cortisol hastens ageing and too much physical stress can also accelerate one's ageing process. Therefore, if job stress is allowed to go continually and the body is depleted further, the person's health degenerates (Devadoss & Befija, 2013).

2.2 Health Implications of Work-related Stress

Actually, the word stress connotes ill situation before humanity, despite the fact that some studies revealed that all stress is not fully negation; it is important to note that not all stress is harmful (Nwamara et al., 2001).

However, in the context of the study, it is assumed that work-related stress such as all tasks are having serious negative effects on the health of workers. It is on this note that Centers for Disease Control and Prevention (1999), stated clearly that work-related stress can lead to poor health and even injury. In the same vien, Auerbach and Gramling (2009), added that studies conducted in countries around the world demonstrate that people can actually work themselves to death. Academic staff of tertiary institutions are not exempted from the result. For example, among the numerous problems confronting organization in Nigeria is the perceived poor health of some workers (Ajayi et al., 2011).

Stressors interrupt the togetherness of all dimensions of health. Wellness (2014), pointed that these different dimensions of health will interact to help determine one's full quality life. The dimensions of health are the routes through which quantity and quality of life can be maintained. According to Wellness (2014), social, physical, emotional, spiritual, environmental, occupational and intellectual dimension/wellness are the dimensions of health. That is why Nwamara et al. (2001) stated that it is note – worthy that when a person is under stress; he/she is faced with disrupted emotional, cognitive and physiological functions.

Therefore, by the period one cannot maintain good relationships with others, and he is occupied with sadness – no joy/happiness, his inner peace and harmony are stolen, working or dwelling in a dirty and noisy environment, lack of job satisfaction, unwilling to learn new skills or cope with them, that is he cannot pursue learning processes anymore, and accepts

unproductive and destructive health habits like over-and-under eating, sedentary life, alcoholism, lack of medical check-up, unprotected sex and host of others actually attract different kinds of health problems. Through the existing dimensions of health, health implications/problems of work-related stress are grouped according to Better Health Cannel (2012) as follows:

2.3.1 Physical health problems of work-related stress

Headaches, sleep disturbances, difficulty in concentrating, short temper, upset stomach, job dissatisfaction and low morale are examples of physical health problems of work-related stress (Centers for Disease and Prevention, 1999). More examples of physical health problems of work-related stress are Fatigue, muscular tension, headache, heart palpitation, sleeping difficulties; like insomnia, gastrointestinal upset; like diarrhea or constipation, and dermatological disorders (Better Health Cannel, 2012). In an attempt to mention health implications of work-related stress the more, Better Health Channel (2012), came up with ten physical health problems related to job stress with their descriptions as:

a. Heart disease – researchers have long suspected that the stressed-out, type A personality has a higher risk of high blood pressure and heart problems. In addition, doctors do know that sudden emotional stress can be a trigger for serious cardiac problems. Heart disease emerges when there is prolonged elevated blood sugar due to work-related stress. It is also a predecessor to cardiovascular disease, which increases the risk of heart attacks and strokes. Work-related stress induces the release of adrenaline, thereby causing heart rate and blood pressure to rise. It triggers reduced blood flow to the heart, promotes one's heart to beat irregularly and increases the likelihood of one's blood clotting. These developments can lead to cardiovascular disease. Source: World-Heart-Federation (2015).

b. Asthma – it put it that many studies have shown that stress can worsen asthma. Some evidence suggests that a parents' chronic stress might even increase the risk of developing asthma in their children (Better Health Channel, 2012). Paul (2013), asserted that stress can create strong physiological reactions that lead to airway constriction and changes in the immune system, which can worsen asthma symptoms. He added that uncontrolled emotional stress perhaps originates from job stress can work on the nerves badly and cause constriction of muscles, like the smooth muscles of the airways in the lungs. This constriction can tighten up and constrict the air pathways, which can worsen wheezing, coughing and chest tightness in people with asthma.

c. Obesity – stress causes higher levels of the hormone cortisol and that seems to increase the amount of fat that is deposited in the abdomen (Better Health Channel, 2012). It has been observed that when one is under job stress, he may find it very difficult to eat healthy diets. Torres and Nowson (2007), asserted that chronic job stress may be causally linked to weight gain, with a greater effect seen in men. They further stated that work-related stress induced eating may be one factor contributing to the development of obesity. Thus, eating at this point is only to fulfill the emotional needs which physiologically capable of increasing the body weight (Edward & Creagan, 2015). Louis (2015), stated physiologically that once one is experiencing job stress, his blood sugar levels rise due to the secretion of stress hormones such as epinephrine and cortisol.

d. Diabetes – stress can worsen diabetes in two days. It can raise the glucose levels of people with type 2 diabetes and increase unhealthy eating and drinking (Better Health Channel, 2012). This health problem has a strong relationship with obesity in that who contracts obesity is vulnerable to diabetes.

e. Headache – stress is the most common trigger for headache – not just tension headaches, but migraines as well (Better Health Channel, 2012). According to American Council for Headache Education (2015), chronic headache is unlikely to be caused by stress alone, yet stress contributes significantly to making headache worse. The stress is the product of the headache, but the stress then contributes to the severity of the headache in a vicious cycle of pain – increased stress – increased pain.

f. Gastrointestinal (GI) problems – stress is also a common factor in many other GI conditions, such as chronic heart burn (or Gastro-Esophageal Reflux Disease, GERD) and Irritable Bowel Syndrome (IBS), but it does not cause ulcer (Better Health Channel, 2012). According to Mercola (2012), work-related stress is defined as an acute threat to homeostasis. This shows both short and long term effects on the functions of the gastrointestinal tract. He further stated that the major effects of stress on gut physiology include alterations in gastrointestinal motility, increase in visceral perception, and changes in gastrointestinal secretion, negative effects on regenerative capacity of gastrointestinal mucosa and mucosal blood flow, and negative effects on intestinal microflora.

g. Alzheimer's disease – one animal study found that stress might worsen Alzheimer's disease, causing its brain lesions to form more quickly – dementia (Better Health Channel, 2012). The major brain disease of the elderly is Alzheimer's disease; lost of memory and cognitive abilities. Carl (2015), stated that in the short term, following a stressful experience, cortisol levels rapidly increase in the blood stream, and its presence is helpful, improving short-term memory formation and adapting the body's physiology to deal with the situation effectively. However, he further explained that long-term stress leads to prolonged elevated levels of cortisol within the blood stream, which can have serious deleterious effects. It was found, over twenty years ago, that

patient with Alzheimer's disease had elevated levels of cortisol in their blood stream, compared to healthy patient. This elevation correlated with the degree of memory impairments that the patients had and appeared early on in the disease progression.

h. Acceleration of ageing – stress seemed to accelerate ageing about nine to seventeen years additional years (Better Health Channel, 2012). Carolyon (2013), stated that psychological stress contributes to biological aging. Meanwhile, Carolyon further suggested that it is very possible that if one has a life filled with constant stress, thus, little-by-little his body system is breaking down. In the same vien, carolyon (2013), mentioned that job stress can damage cells, leading to early aging, even the anticipation of stress may accelerate cellular aging and stress ages the brain.

i. Premature death – study found that caregivers had a 63% higher rate of death than people of their age who were not caregiver (Better Health Channel, 2012). However, Ekundayo and Kolawole (2013), agreed with the Better Health Channel (2012) in all it stated above, but disagreed with it, and maintained that job stress can cause ulcers.

In a nutshell, Ekundayo and Kolawole (2013), maintained that stress has been shown to be either directly or indirectly responsible for early and untimely deaths through heart attack, stroke, high blood pressure and multitude of other stress-related illness such as IBS (Irritable Bowel Syndrome), ulcers, diabetes, impairs the immune system, muscle and joint pains, miscarriage during pregnancy, allergies, alopecia, and premature tooth loss. People undr work-related stress were three times more likely to die early than people who rolled with the punches (Greta, 2014). He further stated that chronic stress can increases levels of the hormone cortisol, which in turn, affects memory, lowers immunity and raises blood pressure

Winefield, Gillespie, Stough, Dua, and Hapuararchchi (2002) in their research, reported that work-related stress is behind the experiencing of tiredness, 'sometime' to nearly all, back and neck pains, sleeping difficulties, headaches, muscle pains, colds, virus infections. In South Africa, Coetzee and Rothman (2005), conducted a study and found high level of psychological and physical ill health in a sample of 372 university staff members. It is presumed that academic staff must have largest number of the staff that experienced this ill health condition in South Africa.

Work-related stress, its health implications are many and innumerable for the fact that human body is made up of a lot of body connectivity ranging from the body tissues, organs, systems to dimensions of health; the path ways of maintaining good health. The health problems actually emerge mostly when the stressors incapacitate the body abilities and overwhelm its normal functional abilities. This indicates that the immune system can be impaired by stress. When such happens, the disease risk factors and causative agents dominate the body.

Tim Field Foundation (2004), reported that Eamonn O'kane, general secretary of the National Association of Schoolmasters Union of Women Teachers (NASUWT) - UK died after a long battle with cancer. It is presumed that teachers are most vulnerable to depression and chronic diseases such as visional and nasal problems including cancer. Teachers are at risk for the fact that they come in contact with challenges always even while sleeping, they dream where they teach a crowd, mark papers, on the road side including sub-ways waiting for taxi so as to be at workplace on time. This may be the reason behind academic staff physical body emaciation and stressed-out unlike lawyer, engineers and politicians. Presumably, academic staff are hardly happy owing to work-related stress. Their mood swings when they are exposed to stressful condition like dealing with audience (Better Health Cannel, 2012).

2.3.2 Emotional health problems of work-related stress

According to Better Health Channel (2012), in a recent study on depression and anxiety found that people who had stress related to their jobs - like demanding working with few rewards, had an 80% higher risk of developing depression within a few years than people with lower stress. Depression, anxiety, discouragement, irritability, pessimism, feeling of being overwhelmed and unable to cope, and cognitive difficulties such as reduced ability to concentrate or make decision are psychological stress symptoms (Better Health Channel, 2012).

Kelly, Charlton and Jenkins (1995), suggested that university academic staff are at around 50 per cent greater risk than the average worker. According to the study of Gillespie, Walsh, Winefield, Dua and Stough (2001), it was revealed that stress impacted on academia psychologically: they described experiencing feeling of anxiety, depression, burnout, anger, irritability and helplessness. Depression is a building block of suicidal thought among workers especially academic staff/school instructors. Tim Field Foundation (2004), pointed out that several teachers have now committed suicide because of the pressures emanating from teaching jobs. Stress is actually a great threat to workers by altering their health status from normalcy; lack of internal body equilibrium.

2.3.3 Behavioural/psychological health problems of work-related stress

Auerbach and Grambling (2009), reported from their study that men with the highest anger scores were at the greatest risk for developing heart disease. They further stated that the risk was substantial: coronary artery disease was diagnosed three times more often in the angriest men than with the least angered. Harvey (2009), observed that anger is an important component of stress on the job – and according to a recent study, men with the most anger and hostility have

highest risk of heart disease. It is a discovery that Hse (n.d.), added that work-related stress effect like anger or aggression may trigger an existing mental health problem that the persons may otherwise have successfully managed without letting it affect their work.

An increase in sick days or absenteeism, aggression, diminished creativity and initiative, a drop in work performance due to ill behaviour, problem with interpersonal relationships, mood instability and irritability, lower tolerance of frustration and impatience, dislike and isolation are found among workers (Better Health Channel, 2012). Following the findings, it is therefore appealing to make out that work-related stress is associated with workers' health precisely among academic staff of higher education. Stress and stress related outcomes do have serious consequences on individual's personal, mental, physiological, and physical health.

2.3 Work-related Stress and Its Health Implications on Academic Staff of Tertiary Institutions

2.3.1 Work-related stress among academic staff of tertiary institutions

Work-related stress is one of the health hazards of the modern workplace (Communication Workers of America, 2001). There are numerous definitions of work-related stress (job stress) including its types for a better society. Thus, Kristin (2010) outlined the existing types of work-related stress as:

a. Overworked underling – an employee is busy from the time he gets to work until the time he leaves;

b. Frustrated go-together – you work your tail off, but you feel you do not receive enough credit, or compensation;

c. Castaway – lack of help: you feel like you are all alone, and not in a good way;

d. Doormat – you deal with demanding and verbally abusive customers, through it all you are expected are not required so as to swallow your resentment and maintain a facade of professionalism, calm and courtesy;

e. Tech prisoner – you are being monitored and tele-guided 24 hours of the day via electronic gadgets; cell phone and laptop. You are constantly connected to the office and your work and personal life are indistinguishable;

f. Bourn-out – you are terminally exhausted both physically, and emotionally, to the point where it becomes difficult to function;

g. Bully target – your boss insults and gives you impossible deadlines, assigns you busy work just because he/she can dress you down in the front of your colleagues and finally,

h. Wronged victim – your boss plays favourites, management decisions are mystifying and arbitrary and employees are treated like children.

All forms of work-related stress are absolutely negative on all works of life precisely on academic staff of higher education. These sets of persons are not exempted from the view based on what is stated above. Fontana and Abouserie (1993), opined that there is substantial stress in all workers such as teachers.

2.3.1.2 Internal and external stressors of academic staff

Ajayi et al. (2011), classified the academic staff sources of job stress to be internal and external factors. They expressed that internal factors include strike, lack of employees' motivation and work and accountability for educational performance and poor work

environment. External factors comprise academic staff shortage, corruption, inadequate funding of the university system by government and admission based on quotas rather than merits. This stress comes from various aspects of life including developmental and social changes, financial and accommodation problems, work demands and the specific demands of academia (Busari, 2011; Ofoegbu and Nwandiani (2006). Busari's observation made it clear that academic staff have specific and peculiar sources of job stress besides the general demands that can be found in all or other professions.

Furthermore, Peretomode (2012), in his study found that the academic administrators are therefore more vulnerable to stress than lecturers because they find themselves not only doing those things lecturers are expected to do – teach, research, publish, and extension services. He also added that the result is that they experience more work overload, role conflict, ambiguity, numerous deadlines, meetings and so on. It is true that the academic administrators are integral part of academic staff, but Nnabuife et al. (2012), disagreed with Peretomode (2012) for the fact that they found that lecturers are subjected to greater job-related pressures than any other group in the academic world. Agreement can be reached that university, polytechnique and colleges of education decisions and policies are for all staff, but more emphases are laid on academic staff because the university, other related authorities and society are demanding speedy and accuracy jobs from them for societal developments. They are the people who put the curriculum of higher education into effect.

All decisions, policies as well as actions forming the stressor on academic staff should be removed for health of the academic staff and a better society (Omoniyi & Ogunsanmi, 2012). They went ahead and posited that the Nigerian University lecturers are expected to perform at high level in the area of curriculum without the adequate basic facilities for teaching, learning

and researching. Therefore, inadequate basic facilities for teaching and learning are factors affecting work-related stress. Based on this notion, Ukessay (2014), stated that job satisfaction does not occur in a vacuum. It added that it is necessary for a system perspective to look not only at employees, but also at the environments in which they are expected to perform. The sources or factors affecting work-related stress are numerous and diverse in that they come from different ways and progress to different levels and magnitudes.

2.3.1.3 Stressors of Academic Staff in Tertiary Institutions

a. Interpersonal relationship

This implies the rapport or emotional bond between or among academic staff of tertiary institutions and students, university/poly-technique/college management, Head of department/ head of unit, colleagues and non teaching staff (Archibong, Bassey & Effiom, 2010). According to Onyeizugbe and Onwuka (2012), interpersonal relationship as a stressor often result from difficulties in developing and maintaining relationship with other people such as colleagues, students, even subordinates in the university environment. In the same vien, Hinneh et al. (2014), asserted that lack of cordial staff relation is one of the stressors of academic staff in university.

Moreover, Onyeizugbe and Onwuka (2012), saw academic politics as the predictor of poor interpersonal relationship among academicians in tertiary institutions. University of Cambridge (2013), reported that many jobs demand regular contact with other people at work; poor or unsupportive relationships with colleagues or supervisors can be a potential source of pressure to workers. It also out-lined the characteristics of poor work-relationship as follow: aggressive management style, lack of support from others, isolation, aversive behaviour; for example, bullying and harassment, lack of understanding and leadership, manage forever finding

fault, others not pulling their weight, others take credit for personal achievement and poor relationship with colleagues.

b. Research

According to Archibong, Bassey and Effiom (2010), this includes sourcing for research grants, conceptualizing research problems, linkage to other professional in one's research discipline, publication of finished articles, and access to relevant literature. Getting all these things to back up a research for a good result is a pressure on its own to academic staff.

Similarly, Nwoye (2002), stated that federal and state governments turned deaf ears to financing and supply of essential scientific materials or facilities needed in higher institutions for effective teaching and learning even researches. In this regard, inadequate funding of research projects among academic staff is one of the major banes of education system in Nigeria (Nwakpa, 2015). He further stated that in Nigerian tertiary institutions, research grants are always difficult to come by. These difficulties are stressors to academic staff of tertiary in the country.

Also, research infrastructure in tertiary institutions in Nigeria is grossly inadequate and generally out of date otherwise obsolete. There is dearth of modern equipment, the old equipment which are available are longer serviceable because the manufacturers have long phased them out their production lines (Nwakpa, 2015). He further stated that work-ships, librarians and laboratories are ill-equipped and obsolete educational equipment and facilities are difficult if not impossible especially in tertiary institutions of higher learning in the country.

Indeed, research required informed, skilled and qualified personnel for it to be well conducted without errors or much error. Following this impression, Nwakpa (2015), asserted that

there is generally shortage of skilled manpower to manage ICT equipment or facilities effectively in the nation's higher institutions to gear up and aid research. Without experts to handle these equipment or facilities, some of them will be rendered redundant and this obviously, can jeopardize the effort of researchers. This is a difficult situation academic staff are facing in tertiary institutions in the country. In other words, some of the academic staff are not capable enough to handle the available research facilities at their disposal. They would not want to embrace changes in education. In buttressing this point, Nwakpa (2015), opined that resistance to change by lecturers is a great problem to research development in Nigerian tertiary institutions.

Sentiment in Nigerians vein, politically, is militating against research development. The government does not consider education a priority or care for research findings for national development in the country (Nwakpa, 2015). He further stated that this explains why funds are not generously released to the educational sector to engage in breakthrough research activities. He also added that, while the tertiary institutions in the country are still grappling with obsolete equipment in this period of rapid change, the government takes delight squandering money on politics. Neither the government nor the society cares to find out research discoveries talk-less of making use of them. There are many quality research findings over the years rotting away in the country (Nwakpa, 2015). This nonchalant attitude of the government brings the morale of academic staff of tertiary institutions down and such is a stressor.

c. Teaching

This includes collation of results, marking of exam scripts, developing of course contents, examination setting, and deciding on appropriate method for lesson presentations according to (Archibong, Bassey & Effiom, 2010). Teaching or lecturing in tertiary institutions goes with

many activities such as marking of students' scripts and employment of good teaching methods for effective teaching and learning. None of these activities is easy to perform. Nowadays, innovations such as the use electronic statistical packages, using computers are now major stressor to many academic staff of tertiary institutions in the Nigeria. Currently, there are a lot of changes in education. Thus, it is expected of the educational instructors to embrace the change. It has been observed that the point to embrace change is associated with stress to academic staff of tertiary institutions. According to Braimoh (2008), the ever-present problem with the Nigerian teachers is their resistance to change.

Nwakpa (2015), asserted that despite the change in educational system all over the world, some Nigerian lecturers still prefer to hold on to their crude and traditional methods of teaching or doing things. Thus, the use of innovative things such as computer, magnetic board and others is highly commendable in an academic environment. Based on this notion, Obilo and Ibebuike (2015), stated that the introduction of computer in all the levels of education in Nigeria helps tutors impact programmed knowledge on students. If, for instance, students' results like accessing semester's results even WAEC and registration of courses are processed without delay through information technology.

Other roles of ICT in teaching and learning according to Nzewi (2009), include visual teaching, multi-trading, web based instruction slides and tutorial and computer assisted-instruction. Learning to use the computer to perform all these desirable works mentioned is presumed to a threat to the academic community.

d. Career development

This includes sourcing funds for career development, university conditions/provisions for professional development, linkage to avenues of professional development, having the required publications for promotion and obtaining the required qualifications (Archibong, Bassey & Effiom, 2010). The process of getting all these things done to achieve a purpose in an academic surrounding is a source stress academicians. Nwakpa (2015), stated that Nigeria's problem of funding education is not lack of sufficient money, but that of too much money wasted through mismanagement and fraudulent practices. In a nutshell, the embezzlement of the public fund in Nigeria must have affected many tertiary institutions and their staff welfare such as in-service training and pure career development otherwise known as study fellowship.

e. Facilities and equipment

This includes electric supply, internet services, office accommodation, office seats and tables, instructional tools, convenient room and water supply. When these facilities or equipment are in short supply, the situation becomes stress inducing factor to the teaching staff and subordinates in tertiary institutions.

In the country, there is incessant power failure and anaemic kind of power supply. This is a great burden and worrisome to the populace especially academic staff of tertiary institutions who actually need constant power supply prior to the nature of their job. Incessant power failure does not support meaningful research activities in higher institutions of learning in Nigeria (Nwakpa, 2015). In the education sector, only a trickle of daily electricity goes in to the country's higher institutions of learning. The situation is still the same today and it has no doubt, rendered research equipment dysfunctional especially the ICT system. The resultant effect is that some tertiary institutions resort to diesel propelled generators which on their own are expensive

and environmentally unfriendly; still research and academic duties are disrupted as they only function or work for limited time or period (Nwakpa, 2015).

Research findings have provided way out for work-related stress among academic staff (Ekundayo and Kolawole, 2013). Their research results showed that 90.5% of the respondents agreed that they organize their time effectively as a way of coping with stress in the workplace. 74.4% agreed that they maintain cordial relationship with their colleagues. They further showed that 67.8% of the respondents agreed that they had up to 7-8 hours of sleep everyday as a way of coping with the stress. Of the respondents, 67.2% agreed that they attend to problems as when due, while 58.9% agreed that they exercise their body to relieve themselves, 46.1% of them agreed that they make do with their salary before the following month's salary is paid, and finally, just 23.9% said that they take to alcoholic drinking to relieve the stress in them. All are strategies against job stress which confronts academic staff of tertiary institutions, but productive and healthy stress coping strategies should be adopted.

Antidotes to work-related stress can be an answer to liberate and free the human generation from stress-related illnesses as mentioned above. For future generation universities, polytechnics and colleges of education, the governments are expected to make the job more attractive than ever before (Ukwayi et al., 2013). Staffs of all works of life have to understand their job stressors and go with them with humour to overcome such. Omoniyi and Ogunsanmi (2012), argued that if Nigeria is to achieve her developmental goals therefore, she needs to adopt practices that may help to alleviate stress among workers especially university lecturers. Good and adequate infrastructural development and remuneration should be made a top priority that academic staff will feel much better psychologically (Peretomode, 2012; Egu et al., 2014).

Researches such as Handbook on Stress, Medicine and Health and Causes, and Cures of Stress in Organizations in work-related stress (job stress) have deemed to confirm the following conclusions: the result of the study of 1,700 teachers in England, Scotland, Wales and Northern Ireland conducted by Cooper (1995), found that there is high level of stress-related illness among teachers. It showed that 23 per cent of the teachers' reported a significant illness during the previous time including coltish migraine, heart problems, anxiety attach, Myalgic Encephalomyelitis (ME) and irritable bowel syndrome that could have been stress-related. Male and female teachers had significantly higher level of anxiety and depression than the average population and had levels equal to out-patients in the hospital. The findings further showed that teachers reported significant psychological symptoms than average, 13 per cent of the teachers in the sample were taking anti-depressant drugs regularly, and 15 per cent were taking them occasionally. Academic staff health is in jeopardy due to factors affecting stress in academic environment; academic sources of stress.

It is also good to acknowledge that Ukwayi et al. (2013), in their study on career among academic staff of tertiary institutions in Cross-River State revealed that over 10.88% and 10.66% of their respondents were with the opinion that health problems and absenteeism were also challenges associated with career stress among academic staff in the State. Coming to the level of stress experience by the academic staff, the study of Peretomode (2012), showed that 37 representing (10.77%) of the respondents stated that they experienced mild stress, 39 (42.9%) moderate stress, 12 (13.2%) much stress and 3 (3.2%) experienced extreme stress. Also, Egu et al. (2014), in their study on effects of academic stress among tutorial staff of South – East Polytechnics revealed that smoking, alcoholism and drug abuse generated mean of 3.45 – remark is acceptable; while high blood pressure/stroke scored mean of 3.10, and brain drain and

impaired research came together at a mean of 3.20 each, all were accepted in the remark indicating that academic stress has negative effects on academic staff health.

Study conducted by Archibong, Bassey and Effiom (2010), revealed male-female employee number variation by stating that the researchers administered their research instrument to a 300 academic staff; only 279 were successfully filled and returned, giving a 93% return rate where 168 were males and 111 were females. Thus, gender stress correlation may be high or low, but it seems that male and female workers who experience the same working conditions may react differently which in turn impair their health status. It is presumed that male workers especially male lecturers withstand job stress more than their female counterparts.

Omoniyi and Ogunsanmi (2012), conducted a research and their findings revealed that there was slightly higher stress for female lecturers (m=98.23). Babajide (1995), agreed that female lecturers are subjected to greater work-related pressures than their male counterparts. Also, Adeoye and Durosaro (2011), maintained that the dual role of female lecturers as wives/mothers as well as lecturers was a source of stress. They further said that the husbands go to clubs and other relaxation centers to unwind, the female lecturers go back home to attend to domestic chores and care of children. Nnabuife et al. (2012), said in addition that the problems of women lecturers seem compounded because of the sex-role stereotyping in which power and independence are not traditionally assigned to the Nigerian women.

In the same impression, a study conducted by Omoniyi and Ogunsanmi (2012), on stress among academic staff in South West, Nigeria revealed that female lecturers experienced slight higher stress with mean of 98.23. Egbunna (1998), in her study found that male and female workers differ in reported symptoms of depression and that there is a relationship between job

stress and depression. Gender differences in job stress, tedium and social support in the workplace that is carried out by Pamela and Hobfoll (1994), attested that women and men reported similar amounts of work support. As predicted, women reported the experience of more tedium than men, and men reported the receipt of more household assistance than women. Spielberger and Reheiser (1994), also studied the job stress survey: measuring gender differences in occupation stress, their findings revealed that overall stress levels were similar for men and women, but gender differences were found in perceived severity and frequency of occurrence of individual stressor events.

Gross, Larson, Urban and Zupan (1994), carried out a research on gender differences in occupational stress among correctional officers. Their results indicated that female correctional officers tend to experience higher levels of stress than do their male counterparts. A similar study was conducted by Ekpenyong (1999), to investigate the gender and stress among bank workers in Nigeria. He employed Ex-post facto research design to ensure no manipulation of variables in the study. From his findings, there is a high significant difference between the stress level of the male and female workers, females experience more stress than their male counterparts. Probably, women especially female lecturers are more prone to stress. In regard to this opinion, Nnabuife et al. (2012), studied stress management and occupational performance among female lecturers in Nigeria. Their findings proved that job stress affects the health of female academics than male academics in Nigeria universities.

However, occupational stress does not actually occur in isolation, there are risk factors that make it possible (Archibong, et al., 2010). They studied occupational stress sources among university academic staff, by their findings, they showed that career development with mean of 13.14 as first job stress in ranking, research with mean of 12.28 takes second position,

interpersonal- relations with mean of 11.92 comes third while teaching has 11.63 as the fourth position. Egu et al. (2014), researched on managing stress among lecturers in Polytechnics of South – East Nigeria. Meanwhile, their results revealed the sources of stress academic staff. They reported that data generated indicated that lack of teaching facilities recorded mean of 3.10, while poor equipped laboratory/technical workshop had mean of 2.90. Overstretched class enrolment had mean of 2.90. Need to meet-up with departmental deadline pooled mean of 3.50, while poor office accommodation generated mean of 3.50. Stuffy lecture rooms with poor seating arrangement for students scored mean of 3.40. The issue of brain drain, made a mean of 2.80. Lack of funds to conduct research pooled mean of 2.25. Incessant strike and examination malpractice had mean of 3.90, 3.10 respectively. In the same manner, marking students' scripts may be a factor in the course.

Study carried out by Uche (2007), revealed that the development priorities of universities and polytechnic are not staff and student oriented. Literally, this can be that the seats, vents, and convenient rooms are not health supportive; students' population explosion perhaps the cause of deteriorating state of the facilities. The demand for education has become high with the result that students who could not get admission into the universities have now flooded the polytechnics leading to overpopulation (Egu et al., 2014). They added that new courses have now been introduced in the polytechnic especially in the area of Computer Science and Entrepreneurship. All these are sources of pressure to the academic staff of higher educations.

Furthermore, Arusiosi, Inedu and Yusuf (2004), carried out a study on primary school teachers in Otukpo Urban, Benue State, Nigeria. They came up with results. Following the results, 17.1% of the respondents indicated that unorganized workplace precipitated to stress in them. They equally revealed that 15% of the respondents indicated lack of co-operation from

administrator and colleagues precipitated stress in them. On the other hand, 10.8% of the respondents indicated that too much work and time pressure induced stress in them. In same vien, a study to investigate stress among secondary school teachers in Ekiti State, Nigeria by Ekundayo and Kolawole (2013), their findings added that 86.1% of the respondents agreed that poor working condition is a primary source of stress among teachers in Ekiti State secondary schools. Also, 83.3% of the respondents agreed that poor relation with subordinates is another source of stress. 81.1% of the respondents agreed that late payment of teachers' salary is a source of stress to teachers, while, 78.9% of the respondents agreed that inadequate physical facilities in schools and poor relations with colleagues are sources of stress among teachers.

In proving the findings above right, Ukwayi et al. (2013), carried out a study on a critical analysis of career stress among academic staff of tertiary institutions in Cross-River State, Nigeria. Their findings revealed that high cost of living and inadequate facilities were the causes of stress among academic staff of tertiary institutions in the state followed by conflicting job demands and poor relationship with colleagues. Lack of annual leave was another major cause of stress with a value of 12.22%, while lack of resources and workload were on the least side with value of 8% and 7% respectively. Excellence in educational outcomes especially in universities demands quality academic staff being recruited and properly developed to perform their roles in the area of teaching, research and administrative task (Akinsanya & Akinsanya, 2015).

2.3.2 Health implications of work-related stress among academic staff tertiary institutions

Communications Workers of America (2001), worked on occupational stress and the workplace and reported that lecturers are exposed to physical illnesses such as asthma, obesity, headache and diabetes than any other group. It further stated that job stress makes their body to

break down and experience severe chest pains as they always read, write and type reading materials like lecture notes or research papers. In a research carried out by Tim Field Foundation (2004), it was revealed that a School Advisory Service Survey estimated that the annual cost of wok-related stress and resultant anxiety, and depression is 19 million pounds. These health disorders such as depressions and anxiety are the prime sources of sick leave induced by stress. Sonja et al. (2010), studied the health and wellbeing of staff members at a tertiary institution in New Zealand, found out that relative large numbers of the subjects were identified with hypertension (18.5%), stress symptoms (32.1%), job stress (36%) and emotional exhaustion (11.4%).

According to Gunduluru and Gunduluru (2013), whose research was on mental healt status of degree college lecturers based on gender and teaching experience in Rayalaseema zone, Andhra Pradesh, India, revealed that there is significant increase in mental health problems such as depression among lecturers and students as the finding is not at variance with the finding of Shute (2007). Health implications are extremely hazardous in that they cause and lead to different health problems such as body pains, headache, ulcers, heart palpitation, stroke, heart attack including miscarriages in pregnant women (Ukwayi et al., 2013). They further posited that several academic staff in Nigerian tertiary institutions (centers of interaction; workplace for desirable changes) has been observed to report insomnia, fear, hypertension, headache, depressions, adjustment disorders (emotional stress) as a result of academic stress. Sujit (2014), whose study on development of a conceptual framework regarding the factors affecting academic in higher education's job dissatisfaction, revealed that lecturers use to experience regular depressions, anger, dislike and impatience due to their job demands. Hinneh et al. (2014), worked on work-related stress among the academic staff of the university of education, Winneba

Campus, Ghana, found out that ill-health was the most effect of stress and burnout among teaching staff with (mean=4.28, std.=0.573). They further stated that it emerged that some of the lecturers had to take a sick leave as a result of the stress they experience.

2.4 Factors Affecting Work-Related Stress

Man uses his five sense organs in doing any work for the fact that work is diverse so also its descriptions and demands on the workers (Alike, 2014). Job descriptions and demands probably are the real origin of the job stress sources. Brian (2013), said that nature of work is what tells the workers that the work can be a threat to their health or not. Almost all works go with pressures which perhaps emanate from inside and outside or the combination of the two of the workers and their physical environment. There are two major kinds of work-related stressors namely: internal and external stressors. On this note, David (1993), stated that stressors can be divided into those that arise from within an individual (internal) and those that attributed to the environment (external).

2.4.1 Internal work-related stressors

The internal work-related stressors are characterized by one's emotional as well as psychological values. Attitudes and perception/interpretations including imaginations are used as a tool in giving meaning to things or situations. It is full of abstractions which can affect one's health. Sharma (2014), asserted that stress can be caused by your perceptions and attitudes.

Therefore, David (1993), stated that internal conflicts, non-specific fears, fears of inadequacy, and guilt feelings are examples of stressors that do not depend on the environment. Health24 (2009), defined internal stressors as those thoughts, feelings, imaginations, anticipations including presence of illness and infections that come from inside of an individual

which make him vulnerable to stress. Wilson (2010), viewed internal stressors to be nutritional deficiencies, bacteria, or viral infections, subluxated vertebrae, hardened arteries, weak muscles, toxic metals in enzyme binding sites, poor circulation, fatigue, energy imbalances, fear-based emotional patterns, and neuroses or rigid ideas. Lazarus (2013), saw internal stressors as people's own internal belief, attitudes, interpretations and other factors, in combination with the external event that tend to create stress. Greene (2014), argued that internal stressors are stress-inducing thoughts or behaviours; these come from psychological or emotional feelings like being depressed or worried or one putting pressures on oneself to be perfect. Sharma (2014), identified health – heart disease, hypertension, problem with eye sight and sugar, and irritants – inadequate sleep, no time to relax, no time to discuss some nagging problems are major causes of life stress.

One of such is the Type A personality or Type A behavioural pattern which research has shown is characterized by excessive drive and competitiveness, a sense of urgency, impatience and underlying hostility (Nnabuife, Onyeizugbe, & Onwuka, 2012). According to Lazarus (2013), the internal stressors/ factors which influence how people perceive stress include their beliefs, expectations, locus of control, low assertion, low self esteem, people pleasing, perceptions, perfectionism and personality. Meanwhile, Greene (2014), stated according to mental health experts at Helpguide.org some common internal stressors are inability to accept uncertainty, pessimism, negative self-talk, unrealistic expectations, perfectionism and lack of assertiveness. In addition, dispositional stressors are arising from the individual characteristics of the workers themselves.

2.4.1.1 Classification of internal work-related stressors

a. psychological/emotional stressors

1. Excess anger
2. Unrealistic beliefs
3. Excess pessimism
4. Health worries
5. Excess worries
6. Unhappy childhood
7. Unrealistic expectations
8. Financial problems
9. Perfectionism
10. Loneliness
11. Low self esteem
12. Low level of assertion
13. People pleasing
14. Boredom
15. Negative self talk
16. Personality
17. Rigid thinking style
18. Excessive self criticism
19. Exams
20. Giving talks/presentations (Lazarus, 2013).

2.4.2 External work-related stressors

According to David (1993), environmental stressors are external conditions beyond an individual's control. Of course, human beings have no power over air or humidity, and these are infections' path-ways. Health of workers can seriously be threatened and impaired by external stressors (Nhs, 2014). Health24 (2009), revealed that external stressors come from outside of an individual. By these impressions, Brian (2013), asserted that external stressors are those events which illuminate/light up from outside a person, and these can be major life events and daily hassles. He further argued in clarification that life events do not occur every day, but daily frustration caused by these hassles which cause people the most stress and therefore can

undermine their health. Sharma (2014), concurred that stress arises due to external circumstances.

Meanwhile, Greene (2014), put it that other stressors come from outside, which are forces that one cannot easily control; examples are a major life event, pressure to pay off debts, anxiety over public speech or an up-coming examination. Sharma (2014), recommended financial problems, place of work; promotional issues as integral part of external stressors before workers.

2.4.2.1 Major life events

According to Holmes and Rahe (1967), the major life events are the following: death of spouse, divorce, marital separation, jail term, death of close family member, personal injury or illness, marriage, fired at work, marital reconciliation, retirement, change in health of family member, pregnancy, sex difficulties, gain of new family member business readjustment, change in financial state, death of close friend, change to a different line of work, change in number of argument with spouse, a large mortgage or loan, change in responsibilities at work, son or daughter leaving home, trouble with in-laws, outstanding personal achievement, spouse begins or stops work, begin or end school/college, change in living conditions, revision of personal habits, trouble with boss, change in work hours or conditions, change in residence, change in school/college, change in recreation, change in church activities, change in social activities, a moderate loan or mortgage, change in sleeping habits, change in number of family get-togethers, change in eating habits, vacation, Christmas, and minor violations of law.

2.4.2.2 Daily hassles

The typical examples of daily hassles are identified by Chekov (2013), in his study to be misplacing key(s), arguments, traffic jams, time pressures, lack of sleep, fear of crime, shopping,

bureaucracy, waiting, loneliness, queuing, pollution, gossip, relatives, excess noise, inconsiderate people, difficult neighbours, car break-down, meal preparation, job dissatisfaction, office politics and problems with children. Lazarus (2013), further broke these sub-headings into minor sub-headings as:

a. Work stressors

Commuting, time pressures, job insecurity, excess working hours, workplace bullying, understaffing, conflicts with colleagues, low pay, role ambiguity, delegation of problems, lack of work recognition, poor support/supervision and workaholic.

b. Family stressors

Caring for a chronically ill relative, partner with health problems, partner with alcohol/drug problems, relationship difficulties, arguments with children, bereavement and child leaving home.

c. Environmental stressors

Pollution, excess noise, poor housing, damp conditions, and traffic jams. David (1993), expressed that the two most effects of electromagnetic radiation are stress and cancers. He added that modern offices are filled with electronic devices that produce high level of radiation; these include computers, video monitors, typewriters, fluorescent lights, clocks, copying machines, faxes, electronic pencil sharpeners and so on. Noise can be potent stressor this includes televisions, radio and even too much or loud talking (Wilson, 2010). He further pointed that some people are affected by even more subtle factors such as electromagnetic waves, colours, tone of voice, including person's aura.

Human sensitivity to electromagnetic fields is well documented, and the design of future office equipment will most likely involve a consideration of emitted radiation (David, 1993; Wilson, 2010).

d. Social stressors

Fear of crime, living in an urban area, poverty, low social support, bureaucracy/red tape, rude-aggressive-unhelpful people, victim of crime, problem with neighbours, and racial/sexual harassments.

2.4.2.3 Combination of internal and external stressors

a. Physical stressors

Sleep debt, excess/too little exercise, poor diet, drug misuse, alcohol misuse, excess heat, excess caffeine, chronic hyperventilation, excess cold, illness, hypoglycaemia, lack of relaxation, surgery and chronic pains (Lazarus, 2013).

b. spiritual stressors

This connotes telling someone the gospel truth; speaking up to relatives or telling a friend the fact about what can bring an acceptable change in him or her. The truth pierces the heart and some do not want to hear it; they become upset and imbalance. It is a standard for attitudinal change and character molding among people. It is on this note that Wilson (2010), stated that spiritual stressors cause people to change or adapt in a way that improves one's character, causes mental or spiritual development, or perhaps makes one a nicer or aware person. He further posited that it can certainly cause some upset, as people and events are revealed for what they

really are. Examples of spiritual stressors are prayers, meditation, reading/studying of the Holy Books, fasting, preaching of the Gospel and more others.

Following the topic of the study, academic staff stressors can be pressures on professional skills (introduction of new teaching changes in curriculum and courses); students (increased class size per teacher); difficult parent teachers' relation (perhaps from new demands regarding roles of the teacher or decrease parent participation); poor planning and programme (constant restricting, frequent reforms in the vocational educational system, working alone and the transition to team work, lack of personal and poor allocation strong administrative hierarchy with a lack of support, insufficient financial resources); social and personal pressures (the quality of education, lack of coherence between personal goal and professional obligations, no recognition or acknowledgement, lack of public esteem); the school as a stressful workplace (excessive paper work, administrative duties, excessive workloads, hour of work, and lack of time); and economic pressures (inadequate salary and job insecurity). Source: European Agency for Safety and Health at Work (2014).

Job insecurity as an extract following above seems to be a big problem to workers especially the academic staff of tertiary institutions that spend their entire life time in developing human resources for national building. Job insecurity can be casual or contract jobs and host of others. Any of the situations is heart bleeding and peeling and, terrible working condition which constitutes a major source of work-related stress among workers. It is on this platform that Musaya (2009), reported that contract staff is a normal way banks and other organizations exploit their employees in the name of contract while the staff undergo normal employees' job functions. This exploitation is quite job bullying and it is apparent source of stress to workers who fall victim. Jime (2014), further argued that such condition (job insecurity) creates

discrimination among staff in an organization, and does not help the economic and well-being of the contract/casual staff.

Interpersonal relationships, workers are being pushed for favouritism at the detriment of their job. For examples, request for preferential treatments of any kind. One of the ways is doctoring marks (Tarver, 2007). He added that it was living a lie that finally put an end to him being a Professor. This can be staff relationship whereby colleagues plot against another and forced him to do and accept wrong doings in the name work.

According to Nwamara et al. (2001), divorce, sever illness, retirement, tension at work, change in occupation, excessive exposure to heat, cold, damp, noise, a competition, an interview, examination, bereavement etc. are sources of work-related stress. This is source of work-related stress and it is boring. According to Iorvaa (2013), a person working at a boring job, or a person not interested in his work, may become mentally depressed. Almost all actions including decision making and policy formulation of a man deem to be a source of job stress to others.

On the other hand, as academic staffs are the focal points in the study, the working environment and staff development are expected to be a priority. The higher institutions, research happen to be an imperative for development. Also, Babalola, Onuka and Oni (2010), agreed that the most important instrument for effective leadership training is the development of academic staff. This can be done via sponsoring academic staff for conferences and in-service trainings. On the same note, Ihebereme (2011), observed that research in higher education is an essential tool through which solution to existing problems are addressed, yet higher institution still show declining trend. The global ranking for higher institutions include recreational facilities for students and lecturers, free medical services for staff and their family, conferences

sponsorship, good housing facilities for staff, research packages, oversea trips for conferences, sponsorship for further academic pursuits to mention but a few (Egu et al., 2014). They added that these mouth watering packages which used to be the attraction to higher institution teaching are gradually eroding away.

In agreement with statement above, when all these or any of these packages is tampered with, it becomes lecturers' aggressive point. The resultant effect of it is that the lecturers always embark on industrial action which disrupts the academic activities. Perhaps, this makes the job unattractive. The lecturers are confronted with a profession that is pressured, bureaucratic, and at the junior end, highly insecure with low pay that improves only slowly with the years (Tarver, 2007). He further added that there is mountain of debt accumulated on the road to becoming a lecturer and hard work needed to get there – so putting this all together the whole profession looks deeply unattractive to anybody with grain of sense. It is on this ground, that Ajayi, Awosusi, Arogundade and Ekundyo (2011), asserted that it appears teaching among the expected role of academic staff has not been accorded the necessary priority as expected.

It is assumed that the unattractiveness has rendered the job prone to any class of degree certificate(s) to the extent that individuals with third class certificate and possibly below are found to lecture in higher institutions while the qualified and dedicated ones are forced to be curriculum and course oriented rather than student-oriented instructors. In a research conducted by Yusuf, Adebowale, Fagbamigbe, Bamgboye and Oyediran (2010) their findings showed that qualification of academic staff: of 132 that attended foreign universities, 54 representing 40% obtained first class, while 10 representing 7.6% obtained third class. Ajayi et al. (2011), therefore buttressed this point by stating that there are instances were some lecturers do place too much emphasis on writing of paper for publications that are more likely to fetch them promotion than

concentrating on teaching that can benefit students. They equally said that there were reported cases of academic staff that are in the habit of rushing their lectures when examination has drawn nearer and students also complain of delay in their examination results. This can be a strategy of exploiting the students either in cash or kind. The working conditions are not convenient, convincing and healthy perhaps.

In Nigerian context before the globe, many lecturers left their academic job for well paid jobs including contracts. Tarver (2007), agreed that since English people are, on the whole, well endowed with sense, the consequence is that the youngest and smartest of our young people are moving away from being lecturers. Following this, Ajayi, et al, (2011), went ahead and disclosed that there are observed cases of arbitrary award of marks, examination malpractices and students tell stories of academic staff that abandon their students to chase contracts and political appointments. Hence illiteracy and lack of communication are core truth why universities and other tertiary institutions are established, and the students cannot benefit, then the society at large will never benefit either. Many researchers are still viewing external stressors from different angles as they apply to them. Examples can be:

a. **Work-related factors**. Work-related factors can come in the form of work overload when the job requires excessive speed, output or concentration, or under-utilization, which may occur when workers feel that their knowledge, skills or energy are not being fully utilized, or when jobs are boring and monotonous (Melamed, Ben-Avi, Luz & Green, 1995).
b. **Organizational structural factors**. These include physical conditions in the work environment ranging from noise, heat, poor lighting etc. Other structural factors such

as staff rules and regulations, poor reward systems, lack of freedom or even lack of clear career path, may all bring about (Ogundele, 2005).

c. **Interpersonal stress.** This often results from difficulties in developing and maintaining relationships with other people such as colleagues, students or even subordinates in the university environment. Politics and struggles over power in the university can also be important source of stress (Ferris, Frink, Gilmore & Kcman, 1994).

d. **Organizational change**. A stable work environment is generally comforting and reassuring to workers hence the occurrence of major changes in the organization tend to cause stress (Marks & Mirvis, 1998; Judge, Thorsen, Pucik & Welbourne, 1999; Wanberg & Banas, 2000).

2.5 Coping Strategies of Work-Related Stress

In the overview of work-related stress, it is evidenced that work-related stress is highly associated with numerous health implications/problems ranging from headaches to cardiovascular diseases. Happily, there are certain coping methods which are needed to be adopting in various human endeavours especially in academic profession. This is typically to reduce the rate at which job stress is affecting human beings; health status as a target. They serve as inhibitor to stress inducing factors, in turn restoring normal health for productivity. There are existing findings on stress coping strategies depending on profession.

Cahill, Landsbergis and Schnall (1995), opined that stress coping strategies should be individualized indicating that it is important that individuals have personal coping strategies at their disposal for when stress inevitable occurs. In other words, (Kagan, Kagan & Watson, 1995; Cooley & Yovanoff, 1996; Harry, Natalie and Mark, 2008), posited that physiological coping strategies against stress could be biofeedback: electronic measurement of mind-body functions. They included muscle relaxation: self regulated, progressive body relaxation that puts the individual in an extremely restful state as well as aerobic activity: any type of activity that raises one's rate such as cycling, swimming or jogging. It is not dismay that Ajayi and Ayodele (2002), suggested that remuneration, cordial relationship between authority and staff, recognition, flow of information, staff development, adequate provision of facilities and funds enhance workers' health before performance as a way out in reducing job stress. Wainwright and Calnan (2002), added that a strategy for coping with work-related stress is by identifying the affecting agents such as compilation of results. Stress appears to be a common phenomenon in every life's endeavour and the antidote to this phenomenon is regular participation in exercise and recreational activities (Ajayi, 2000; Fadoju, 2004).

Coherently, there are several stress coping strategies for workers, academic staff in particular. It is agreed that if the workers' environmental health is adequately maintained as well as working conditions especially the academic staff of tertiary institutions that they may have interest in their job and their quitting rate will reduce. That is why Tarver (2007), stated that lecturers did not enjoy their jobs too well and rather than campaign for change or seek alternative employment, they rejoiced inwardly at the thought of another bunch of people being forced to work under the same miserable conditions under which they laboured.

Harry et al. (2008), opined that physiological arousal is necessary to prime the bodies for taking action. This is a method where one is made to be aware of the stressors within his environment and he focuses on them and allows every other thing to go behind him. Hence, one is alert concerning stressors and willing enough to take action against them, definitely, his level of stress will drastically reduce to barely minimum. Therefore, stress coping strategies are more or less of taking proactive measures against the prevailing stressors. For example, if organization and management of educational sectors can ensure healthy working conditions, such will have greater impact on health of the workers.

2.6 Summary

It has been shown that work-related stress also termed as job/occupational stress is a global issue that poses a threat to the health of workers especially academic staff of tertiary institutions. It is observed that work-related stress arises when workers' skills, resources and abilities cannot match their work demands and requirements. Observations made showed that health implications such as headache, depression, hypertension, anxiety, ulcer, body pains, poor mental coordination, eye dysfunction, anger and heart palpitations are due to work-related stress.

The health problems are grouped into physical, behavioural and emotional health problems for easy identification. It is observed that work-related stress uses anxiety, sadness, depression and anger as an instrument in disrupting health status in all dimensions. It has been affirmed that stress accompanies work though it could be challenging or an overwhelming situation (distress) that is believed to be affecting workers' health irrespective of eustress type of stress. Eustress is known as stress at moderate level with protective and adaptive functions. It is noticed that all human professions have their different stressors. Thus, is has been shown that

work-related stressors can be grouped into internal and external stressors or combination of both. It is noticed that man cannot escape major life events and daily hassles in the course of survival for healthy living. On the other hand, it is understood that male and female's respond to stressors differently probably, because of differences in genetic make-up despite age. Also, genetic make ups are predicted to be natural adaptive medium against work-related stress besides general and specific adoption of stress coping strategies for workers especially the academic staff of tertiary institutions.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This study investigated health implications of work-related stress among academic staff of tertiary institutions in Katsina State. This chapter described research design, population of the

study, sample and sampling techniques, data collection instrument, validity of the instrument, reliability of the instrument, data collection procedure and data analysis.

3.1 Research Design

In this study, descriptive survey research design was used. Akuezuilo (2002), stated that descriptive survey design is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representatives of the entire group. She further stated that descriptive survey design gives researchers the opportunity to use questionnaire to obtain data. She maintained that it is objective that is; it describes things the way they appear.

3.2 Population of the Study

The population of this study comprised all academic staff of thirteen existing tertiary institutions in Katsina State. The population of all academic staff of tertiary institutions used for this study was two thousand and thirty six (2,036), (Establishment Departments; Umaru Musa Yaradu'a University; Federal University, Dutsin-Ma; Usman Hassan Katsina Polytechnic; Federal College of Education, Katsina; Isa Kaita College of Education, Dutsin-Ma; Alkalam (Islamic) University; School of Nursing, Katsina; School of Midwifery, Malumfashi; School of Administratuon, Funtua; Community Health Technology, Funtua; School of Health Technology, Kankia; School of Legal Studies, Daura, and School of Health Technology, Daura, as at 11th March, 2015). Meanwhile, Yaradu'a University; Federal University, Dutsin-Ma; Usman Hassan Katsina Polytechnic; Federal College of Education, Katsina and Isa Kaita College of Education, Dutsin-Ma formed the target population with population of 1,639 academic staff.

3.3 Sample and Sampling Techniques

A sample of 328 academic staff of tertiary institutions in Katsina State was used for this study. The Research Advisors (2006), reported that in a population of 1500-2000, a sample size of 322 is appropriate. Meanwhile, purposive sampling technique was used to select five tertiary institutions in Katsina State. To meet the criteria for selection, the institution must be a government owned institution. It must be University, Polytechnic or College of Education. Those institutions that met the criteria were selected for this study. Proportionate sampling technique was used to select 20% of total population of academic staff from the selected tertiary institutions, using simple random sampling technique. Hence, the researcher compiled list of departments in each of the selected tertiary institutions and folded the departments in papers in which six departments were selected randomly from individual institution. Within these departments, academic staff offices were selected through folding of papers again and picked without replacement until the required number was met. It is through this procedure that the respondents were selected for this study.

Table 3.1 indicated the distribution.

Table 3.1 Distribution of academic staff of tertiary institutions population and sample size in Katsina State.

S/n	Name of tertiary institutions sampled	Population size	Sample size
1.	Umaru Musa Yar'adua University	388	78
2.	Federal University, Dutsin-Ma	360	72
3.	Usman Hassan Katsina Polytechnic	390	78
4.	Federal College of Education Katsina, Katsina State	274	55

5.	Isa Kaita College of Education, Dutsin-Ma	227	45
	Total	**1639**	**328**

3.4 Data Collection Instrument

To achieve the purpose of this study, a self developed questionnaire named Health Implications of Work-Related Stress Questionnaire (HIWRS-Q) was used for the study. The questionnaire consisted of two sections; 'A, B, C'. Section 'A' contained three statements on demographic information of the respondents, while 'B' contained ten items on work-related stress, while section C contained seventeen statements which sought information on health implications of work-related stress. Each response option was assigned numerical values such as: Always (5 points), Almost always (4 points), Sometime (3 points), Rarely (2 points) and Never (1 point). There are 10 items out of the 17 items on the questionnaire that assessed work-related stress only. The least score is 10, the highest score is 50, while the midpoint is 20. In this regard, scores between 10 -20 are considered to be no work-related stress, and scores between 21 -50 are regarded as work-related stress. Similarly, there are 17 items on the questionnaire that assessed health implications. The least score is 17; the highest score is 85 while their midpoint is 34. Moreover, scores between 17 and 34 are regarded as negative health implications while, scores within 35-85 are regarded as positive health implications.

3.5 Validity of the Instrument

To ensure that the instrument measures what it is supposed to measure, five copies of the questionnaire were vetted (face validity) by five lecturers in the Department of Physical and Health Education, Bayero University, Kano. All their corrections, suggestions and criticisms

were incorporated into the final draft of the questionnaire with the approval of the researcher's supervisor before pilot study.

3.6 Reliability of the Instrument

To determine the reliability of the instrument, split-half reliability method was employed using Spearman-Brown Prophecy Formula. Twenty copies of the questionnaire were used for pilot study among academic staff of Federal College of Education, Kano, which is outside Katsina State where the study was conducted. The instrument had reliability index of 0.75, showing that it was reliable for this study.

3.7 Data Collection Procedure

The researcher collected an introductory letter from the Head of Department, Physical and Health Education, Bayero University, Kano, to the selected tertiary institutions in the area of study seeking their permission to conduct the study. The researcher administered 328 copies of the questionnaire to the respondents through five lecturers used as research assistants in this study. The research assistants distributed copies of questionnaire to the sampled academic staff in five tertiary institutions in Katsina State. They followed up and collected 328 duly filled questionnaire copies within the period of six weeks. The researcher visited one institution weekly for administration and retrieval of filled questionnaire for the period of six weeks.

3.8 Data Analysis

Frequency count and percentage were used to present and organize the demographic information of the respondents and they were used to answer all the research questions. Chi-

Square was used to test the major hypothesis and sub hypothesis 1, t-Test was used to test sub-hypotheses 2 and 3 and ANOVA was used to test sub-hypothesis 4 at 0.05 level of significance.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

The present study investigated health implications of work-related stress among academic staff of tertiary institutions in Katsina State. This chapter presents the findings of this study. The findings are presented on Table 4.1.1-4.1.12.

4.1 Results

Table 4.1.1: Demographic Data of the Respondents

S/n	Variables	Frequency	Valid per cent
1.	**Gender**		
	Male	261	79.6
	Female	67	20.4
	Total	**328**	**100.0**
2.	**Status**		
	Graduate Asst./ Asst. lecturers	120	36.6
	Lecturer III-I	158	48.2
	Senior lecturers and above	50	15.2
	Total	**328**	**100.0**
3.	**Institutional ownership**		
	State	192	58.5
	Federal	136	41.5
	Total	**328**	**100.0**

Table 4.1.1 shows the demographic data of the respondents. The Table shows that there are 261 (79.6%) male academic staff and 67 (20.4%) female academic staff. On the status of staff, the Table also shows that there are 120 (36.6%) graduate assistant/Asst. lecturers, 158 (48.2%) lecturer III-I and 50 (15.2%) senior lecturers and above. Sequentially, it shows that 192 (58.5%) academic staff used in the study are from State owned tertiary institutions while 136 (41.5%) are from Federal owned tertiary institutions in Katsina State making it 328 academic staff used in this study.

Research question 1: Do academic staff experience work-related stress in tertiary institutions in Katsina State?

Table 4.1.2: Work-Related Stress among Academic Staff of Tertiary Institutions in Katsina State

Work-related stress (WRS)	Frequency	Valid per cent (%)
No	85	26.0
Yes	243	74.0
Total	**328**	**100.0**

Table 4.1.2 shows that 85 (26%) academic staff respondent to 'No' meaning that they do not experience work-related stress in tertiary institutions in Katsina State, while 243 (74%) academic staff respondent to 'Yes' meaning that they experienced work-related stress in tertiary institutions in Katsina State.

Research question 2: Do academic staff experience health implications as a result of work-related stress in tertiary institutions in Katsina State?

Table 4.1.3: Health Implications of Work-Related Stress among Academic Staff

Health implications	Frequency	Percentage (%)
Positive	105	32.0
Negative	223	68.0
Total	**328**	**100.0**

Table 4.1.3 shows that 105 academic staff representing 32 per cent experienced positive health implications of work-related stress while 223 of them representing 68 per cent experienced negative health implications of work-related stress.

Research question 3: Will there be a difference in the health implications of work-related stress among academic staff of tertiary institutions in Katsina State based on institutional ownership?

Table 4.1.4: Health Implications of Work-Related Stress among Academic Staff Based on Institutional Ownership

Health implications	State institution		Federal institution			
	Frequency	(%)	Frequency	(%)	Total F	Total (%)
Positive	52	49.5	53	50	105	32.0
Negative	140	63	83	37	223	68.0
Total	**192**	**59**	**136**	**41**	**328**	**100.0**

Key: F=Frequency.

Table 4.1.4 shows that academic staff from State owned tertiary institutions almost experienced the same positive health implications of work-related stress with academic staff from Federal owned tertiary institutions (52 (49.5%=53 (50%). It also shows that academic staff from State owned tertiary institutions experienced more negative health implications work-related stress *37%.*

Research question 4: Will there be a difference in the health implications of work-related stress between male and female academic staff of tertiary institutions in Katsina State?

Table 4.1.5: Health Implications of Work-Related Stress among Academic Staff Based on Gender

Health implications	Male staff		Female staff			
	Frequency	(%)	Frequency	(%)	Total F	Total (%)

Positive	82	78	23	22	105	32.0
Negative	179	80	44	20	223	68.0
Total	**261**	**80**	**67**	**20**	**328**	**100.0**

Table 4.1.5 shows that male academic staff experienced more positive health implications of . It also shows that male academic staff experienced more negative health implications of work-*20%.*

Research question 5: Will there be a difference in the health implications of work-related stress among academic staff of tertiary institutions in Katsina State based on their status?

Health Implications	**Graduate Asst./Asst. Lecturer**		**Lect. III-I**		**Senior Lecturer**	
	Frequency	**(%)**	**Frequency**	**(%)**		

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