RELATIONSHIPS AMONG STRESS, COPING STRATEGIES AND ACADEMIC ACHIEVEMENT OF UNIVERSITY UNDERGRADUATE STUDENTS IN IMO AND KADUNA STATES, NIGERIA

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A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES AHMADU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN EDUCATIONAL PSYCHOLOGY

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OCTOBER, 2016

DECLARATION

The researcher hereby declare that this thesis entitle **"Relationships among Stress, Coping Strategies and Academic Achievement of University Undergraduates Students in Imo and Kaduna States Nigeria"** is a product of my own study. This study has not been presented in any previous application for a higher degree.All quotations are indicated by quotation marks and sources of information are acknowledged in the references.

Agnes OKORIE _____ _____

Signature Date

CERTIFICATION

This thesis titled: ”Relationship among Stress, Coping Strategies and Academic Achievement of University Undergraduate Students in Imo and Kaduna States Nigeria” by **Okorie Agnes** meets the regulations governing the award of the degree of Doctor of Philosophy in Educational Psychology of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This thesis is dedicated to my parents:**Andrew** and **Grace**.

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ABSTRACT

This thesis investigated the relationships among stress, coping strategies and academic achievement of University undergraduate students in Imo and Kaduna State. A correlational type of survey design was used for the study. Three faculties from the Universities were used. A Random Sampling Technique was used in selecting 337 students, both male and female for the study. The research instruments were the Students Stress Questionnaire (SSQ), Students Coping Strategy Questionnaire (SCSQ) and Students Academic Performance Scores (SAPS). The questionnaire has 25 items each scored on a four point Likert Scale ranging from (Strongly Agreed, Agreed, Disagreed, and Strongly Disagreed). The Pearson Product Moment Correlation Coefficient was used in the test of 4 hypotheses involving relationship while the independent t – test was used in testing 3 hypotheses involving significant difference. The finding of the study revealed that significant negative relationship exist between stress and academic achievement of students in Imo State with (r= -0.850, p=0.000) and in Kaduna State with (r= -0.785, p= 0.000) also significant relationship exist between coping strategy and academic achievement of students with (r=0.951, p=0.000) in Imo State and (r= -0.893, p= 0.000) in Kaduna State. No significant difference was revealed between Imo and Kaduna State students in the area of stress with (t=0.710, p=0.462). Also no significant difference was revealed between Federal and State university students in thearea of stress with (t=0.720, p=0.472). Significant difference existed between male and female students in their coping strategies with (t=0.5823, p=0.000). It was recommended among others that university environment should be made conducive by improving on hostel accommodation, conducive classrooms for lectures and amenities such as light and water. It is also recommended that universities should organize programs on stress management that will teach students how to appraise stressful events, develop coping skills and put these skills into practical use.

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LIST OF ABBREVIATIONS

PSTD:	Post Traumatic Stress Disorder
USA:	United States of America
NO:	Nitric Oxide
BP:	Blood Pressure
WHO:	World Health Organization
AIDS:	Acquired Immune Deficiency Syndrome
ANS:	Autonomic Nervous System
NYSC:	National Youth Service Corps
CNS:	Central Nervous System
GAS:	General Adaptation Syndrome
SRRS:	Social Readjustment Rating Scale
ACTH:	Adrenocorticotrophic Hormone
CAD:	Coronary Artery Disease
CHD:	Coronary Heart Disease
fMRI:	functional Magnetic Resonance Imaging

OPERATIONAL DEFINITION OF TERMS

Stress –Is a pressure or feeling of unease by students to environmental factors in the university that threaten and tax them.

Coping Strategy – Is the thought and behavior students use to handle or reduce the source of stress.

Academic Achievements – This is the cumulative grade point average (CGPA) obtained by students at the end of academic year.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Stress is a common element in the lives of every individual regardless of age or cultural background. Psychologists describe stress as uncomfortable and unhealthy situation that places demands on an individual thereby upsetting the physical, psychological, emotional and cognitive wellbeing which is caused by different activities, events and life experiences. According to Garret (2001) stress is a non-specific response of the body to any demands made upon it. In other words, as demands are made on an individual or as situations arise, the body attempts to adjust or adapt to the situation in order to re-establish normalcy. Garret further states that there is a series of psychological reactions that occur in response to environmental demands or any noxious stimulus. Some familiar reactions to demands made on the body include increased heart rate, respiratory rate, blood pressure and blood glucose level.

Stress leads people to a lot of frustration that affect their mental health and one's mental health could determine ones academic achievement. Asuni, Schoenberg and Swift (1994) suggest that, stress is part of life from childhood. It could be derived from either external or internal environment, external environment involve illness, mal-nutrition, a difficult work assignment or academic pressure. Internal stress resulting from illness, hormonal changes that occur during adolescence or menopause, or even certain normal physical changes leads to conflict. Stress is a response to event that threatens or challenges a person. It is an inner or outer demand which may be physiologically arousing and emotionally taxing and call for cognitive or behavioural response that affect learning environment and the efficacy of learning.

Stressful life experiences as well as acute or chronic stress usually lead to depression which can interrupt the normative progression of developmental mile stones in students, both

at home and in school. As such, stressful experiences and emotional difficulties are likely to undermine a variety of school-related competencies, including academic motivation and school engagement, goal orientation, scholastic performance and school conduct (Balarabe, 2003).

In Nigerian universities, the main task that faces the student is an intellectual one but the student's academic achievement is influenced and affected with a unique set of stressors that may be overwhelming, thus, altering the ability to cope with the situation. A study by Shalshidar, Rao and Hedge (2009) shows that a large number of young people are moving through universities into adult life with fears of whether they will be able to find a job after graduating and even finding a suitable life partner.

It has been widely recognized that learning is not an isolated process but is profoundly embedded in the complex biological, psychological and social aspect of an individual's functioning. Therefore, the academic success of students depend largely on how conducive and safe the university environment is. Furthermore, emerging theories of human development as well as numerous empirical studies by psychologists, counselors, and education researchers have pointed to the critical impact of stress and coping strategies on learning (Mary & Jennifer, 2003). Productive interaction depends on how well balanced a student is both cognitively and psychologically. When a student is mentally well organized and balanced, the Issue of good relationship, abstract thinking that demonstrated creative potentials, which leads to quality interaction can be guaranteed. Technical and scientific breakthrough cannot occur in an individual's life or society in a situation of inadequate mental health. It is in a state of sound mental fitness that people or society talk of meaningful contribution that guarantees functional development. Stress and how students are able to cope with it may affect their academic achievement.

Students react differently to stress, but common stress symptoms include irritability, muscular tension, inability to concentrate, trembling, anxiety, irrational behaviour, loss of appetite, loss of sex drive and a varied of physical reactions such as headaches and accelerated heart rate (Heath, 2008). All these symptoms are seen to affect the academic achievement of an individual. The relationship between stress and academic achievement has been well established to the extent that Coleman (1999) posits that stress results to low concentration in class, increased aggression, violence and subsequent abuse. This affects the student's social interactions with his family, friends; and his colleagues suffer from his aggression or withdrawal.

University students are occasionally placed under condition of stress and conflict that cause them to experience strong feeling of frustration, role ambiguity, role strain and role overload. Lahey (2004) states that some individuals by virtue of their biological make-up, the techniques they have developed to handle conflict and the amount of support provided by their environment are better able to withstand stress than others. Some are able to adjust and adapt, while some are more vulnerable. He however confirmed that there are no such things as ideally adjusted person. While a few get along in the world exceptionally well, and most are fairly successful in their environment, a few have problems that make them seriously unhappy.

At the university level a large proportion of students lead so to speak, two lives and dwell in two worlds. There is the world encompassed by what is offered and demanded at school. There is also the world consisting of the student's fantasies, perplexities, strivings and hopes. These worlds are often widely separated. There is the scholar the university sees in the flesh; but there is also the hidden scholar, laboring with some concerns. These two lives and

dwelling in two worlds could affect the academic achievement of students. What coping strategies do university students use in handling these conflicts? Some could use effective coping strategies while others could use ineffective coping strategies.

It is against this background that the researcher deems it necessary to research into the relationship among stress, coping strategies and academic achievement of undergraduate students in universities in Imo and Kaduna states, Nigeria.

1.2 Statement of the Problem

University students have a unique cluster of stressful experiences or stressor. There are several explanations for increased stress levels in university students. First, students have to make significant adjustments to university life. Second, because of the pressure of studies, there is strain placed on interpersonal relationships. Third, house arrangement and changes in lifestyle contribute to stress experienced by university students. Some universities do not have enough hostels for students; three quarter of the students live off campus. Accommodation is difficult to get and when a student finally gets one, the rooms are packed with seven to ten students. In addition, students in university experience stress related to academic requirement, support systems and ineffective coping skills.

The hundred level students are new in the university and would have problem of adjusting to the new environment. There may be difficulties with roommates because some would want to stay with close friends. There is the problem of being away from home for the first time, and financial difficulties of not knowing how to manage the money. Most of these students are confused, asking questions on registration of courses, how to locate some buildings and areas, because there was no proper orientation. These stressors and how they cope could affect the academic achievement of students.

Assigned readings, studying for tests, writing a major term paper, dealing with deadlines, two examinations in one day and being caught cheating on a test are problems to the student (Umar, 2008). What about the student who is also stressed out that everything he has studied just flies right out of his head? There is this concern about how their life will be in the future, whether they will be able to find a job after graduating, and finding a suitable life partner. How can a student faced with these problems be able to cope and face the challenges of academic work?

The epileptic nature of power supply in Nigeria is a big source of stress especially when preparing for examinations. Some universities do not have generators and students find it difficult to go to the library to read or even walk around their hostels. In recent times, some universities were closed down because students demonstrated over lack of water supply. Research materials are inadequate, and assessing the internet is always a big problem. Medical centres are mere consulting clinic. When faced with all these, student academic achievement could be affected.

Some universities are so large that moving from one faculty to the other could be a source of stress. At night when students close from the library, they walk a long distance to get to their hostels. These universities are lacking in the area of transportation. What of the universities that are located at the heart of the state capitals? They experience overcrowding and noise. Noise could disrupt an on-going activity like reading assignments and other activities that require maximum concentration.

There is a big gap between Federal and State Universities in the area of funding. Infrastructures and resource materials are more available in Federal than State Universities. Some State Universities do not have accommodation for the students. Teachers are not being paid regularly and some school fees in these universities are outrageous (Maisamari, 2002). If

parents manage to pay the school fees and accommodation outside the campus, money for feeding and upkeep becomes a big problem, thereby forcing students to skip some meals and not having nutritional value of what they eat. If a student is not nutritionally balanced, he falls sick and this could affect his academic achievement.

How can the school promote, in all the people connected with it a sense of security in these days, which can be characterized as "an age of turbulence". How can the university promote freedom in education and also maintain a substantial degree of emotional security? However, in most universities, if not all in Nigeria, the atmosphere of the school is no longer humane; it is characterized by lack of security. There is lack of communication between teachers, students and administration, and community at large. Communities where universities are located are no longer friendly to students. They enter universities at will, kidnap, harass, rape and kill students. These are enough to cause stress for students. The physical, psychological and social aspects of the university environment have become a source of stress, which may affect the academic achievement of students. The modern university is too vital a part of society to function in isolation

How can students be both secure and realistic in times when the fear of the political tension, economic and social tension within the country make the news headline a daily threat to a sense of security? Strikes and students unrest have disrupted the school calendar and students are not sure when they will graduate. When students stay out of the university for long, they drop their books, lose touch with academics, and this could affect their academic achievement. Therefore, this research investigated the relationship among stress, coping strategies and academic achievement of university undergraduate students in Imo and Kaduna States, Nigeria. It also investigated the difference in stress between Imo and Kaduna State

university students, and difference in coping strategies between male and female university students.

1.3 Objectives of the Study

This study intended to achieve the following objectives:

1. To determine the relationship between stress and academic achievement of university students in Imo state.
2. To find out the relationship between stress and academic achievement of university students in Kaduna State.
3. To investigate the relationship between coping strategies and academic achievement of university students in Imo State.
4. To ascertain the relationship between coping strategies and academic achievement of university students in Kaduna State.
5. To find out the differences between Imo and Kaduna State university Students in the area of stress.
6. To find out the differences between Federal and State owned University students in the area of stress.
7. To investigate the differences in coping strategies between male and female university students.

1.4 Research Questions

Based on the stated objectives, the following research questions were raised:

1. What is the relationship between stress and academic achievement of university students in Imo State?

2. What is the relationship between stress and academic achievement of university students in Kaduna state?
3. What is the relationship between coping strategies and academic achievement of university students in Imo state?
4. What is the relationship between coping strategies and academic achievement of university students in Kaduna State?
5. Is there any difference in stress between Imo and Kaduna State University Students?
6. Is there any difference in stress between Federal and State owned University students?
7. Is there any difference in coping strategies between male and female university students?

1.5 Hypotheses

The study was guided by the following hypotheses:

1. There is no significant relationship between stress and academic achievement of university students in Imo State.
2. There is no significant relationship between stress and academic achievement of university students in Kaduna State.
3. There is no significant relationship between coping strategies and academic achievement of university students in Imo State.
4. There is no significant relationship between coping strategies and academic achievement of university students in Kaduna State.
5. There is no significant difference in stress between Imo and Kaduna State University Students.
6. There is no significant difference in stress between Federal and State owned University students.

7. There is no significant difference in coping strategies between male and female University students.

1.6 Basic Assumptions

This study was based on the assumptions that:

1. There may be relationship between stress and academic achievement of university students in Imo State.
2. Stress may be responsible for the poor academic achievement of university students in Kaduna State
3. Some coping strategies may have relationship with the academic achievement of university students in Imo State.
4. Coping strategies may affect the academic achievement of university students in Kaduna State.
5. Differences may be found between Imo and Kaduna State university students in the area of stress.
6. Federal and State university students may differ in the area of stress.
7. There may be differences in coping strategies between male and female university students.

1.7 Significance of the Study

It is expected that the study will help students in the area of techniques very useful to them whenever they find themselves in stressful situations that call for managing and coping thereby improving their mental health conditions. It will also assist them not to accept added responsibilities when they are unable to handle them. Student's success in their educational endeavours and their general socio-emotional adjustment are influenced by a variety of personal characteristics and environmental experiences.

In addition the study will therefore help the universities to understand causes of student's stressors and help to reduce them. This study will also assist the universities to create a conducive learning environment; it will make the school authority to be flexible and democratic in their approach to Issues and leadership styles, provide an enabling environment whereby teachers and students at all levels interact and relate with one another.

Furthermore, the study will assist parents and guardians in utilizing one or more of the techniques to be discussed in guiding their children on how to get rid of stressful situation if they find themselves in it. The study of this nature will encourage the community to ensure that stress and anxiety-related problems which they cause for students are checked, and support the university in having a conducive learning environment.

Moreover, the understanding of this work will assist the government to reduce all things that can lead to stress among its citizens and enlighten them on the dangers of stress. It will also assist the government to increase sensitization programme to promote general awareness on the effect of stress. Similarly, the study will strengthen the government's interest in education by funding the sector adequately, providing all the necessary facilities that will enhance effective teaching and learning conditions; especially in the area of equipping the libraries and internet facility

The result of the study can assist scholars carrying out similar studies by providing knowledge on the extent of relationship that exist between stress, coping strategies and academic achievement of students. Thus, the study contributes to literature in the related fields of study to stakeholders and scholars in stress, coping strategies and university administration. It could also provide baseline knowledge from where further researches can be carried out.

Finally, this study will assist counselors in creating conditions in the university which will help in building a wholesome relationship among members of the university. The

counselor will be able to identify stressors among students and assist them in the area of coping. When these stressors are identified, they will be in a position to discuss with the university authority.

1.8 Scope and Delimitation

The study was undertaken to find out the relationships among stress, coping strategies and academic achievement of university undergraduate students in Imo and Kaduna states, Nigeria. The study was carried out with two universities in each of the states; one federal and one state university. The faculties that were used for this study are faculty of Agriculture, Administration, and Social Sciences. These faculties are chosen to represent the student population. The study focuses on 300 level students in each faculty. It was also based on gender (male and female).

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This research is designed to investigate the relationship among stress, coping strategies and academic achievement of university undergraduate students in Imo and Kaduna states, Nigeria. The need for critical review of literature is the purpose of this chapter. Knowledge of current views and research work related to the concepts have been addressed to provide greater focus for the research work. The following sub-headings were discussed in this chapter:

- Conceptual framework
- Concept of Stress
- Concept of Coping Strategies
- Concept of Academic Achievement
- Theoretical Framework
- Theories of Stress
- Systematic Stress Theory
- Resource Theories of Stress
- Cognitive Theory of Stress
- Theories of Coping Strategies
- Cognitive Appraisal Theory
- Tolerance of Ambiguity Theory
- Stress and Academic Achievement
- Coping Strategies and Performance
- Stress and Gender

- Gender and Coping Strategies
- Review of Empirical Studies
- Summary

2.2 Conceptual Framework

2.2.1 Concept of Stress

Stress is a nonspecific response of the body to a demand. It is the consequence or failure to adapt to change, specifically the inability to respond appropriately to emotional or physical threats to the organism whether actual or imagined. Stress is personal and unique to each individual such that what may be relaxing to one person may be stressful to another (Keil, 2004). Stress has been adjudged as a phenomenon that affects human life in different dimensions. It is described as an internal pressure; feeling of unease, or fear attached to specific objects or situations, a personality characteristic of responding to certain situations. It is seen as a stimulus that interfere with the biological as well as psychological balance of an organism (Udoh & Ajala, 2005).

Stress has different meanings in different contexts. Stress can be external to us. We think of stress as something that happens to us – that is, as situations that push us to the limit or threaten our safety or well-being. Or stress can be the relentless onslaught of difficulties, such as being late on a term paper, the car breaking down, realizing there is no money in the checking account, and then getting into a fight with a roommate all in one week. We call these events that push us to the limit or exceed our ability to manage the situation at hand stressors. The focus on the situation that causes stress is known as the stimulus view of stress.

In contrast, stress can be internal to us; we can think of it as the feeling we experience when events are too much to handle. The response view of stress has focused on the physiological changes that occur when someone encounters an excessively challenging situation. Clearly stress is much more

than being in certain situations, and it is much more than physiological responses. It exists within the relationship between the external events and the internal responses. Stress emerges from people's interpretations of the relevance of certain stressors to their lives and their ability to deal with them. This relational view of stress holds that stress is a particular relationship between the people and the situations in which they find themselves.

Certain events demand an overwhelming amount of our energy and time. Any number of things can be stressors: unpleasant situations, such as divorce, financial troubles, or being sick; or pleasant situations, such as a wedding or the birth of a child. Psychologists measure stress as a stimulus by quantifying the number of stressors a person experiences during a given period. Two major categories of stressors are major life events and daily hassles.

Stress is defined as the response to events that threaten or challenges a person (Feldman, 1994). Stress refers to inner and outer demands, which may be physiologically arousing and emotionally taxing and call for cognitive or behavioural responses (Western, 1996). Averach and Grambling (2006) defines stress as an unpleasant state of emotional and psychological arousal that people experience in situations that they perceive as dangerous or threatening to their well-being. In our society today, people are going through a lot of stress emerging from excessive exposure to severe hardship, poverty and serious life exhausting struggle for survival. Genyi and Deakaa (2005) observed that there is however no doubt that the institution of family has come under attack and strong influence by social, economic and technological forces. To this extent, Nigeria's economic crisis has had significant negative impact on the family. According to Romeo and McEwen (2006) stress is the feeling an individual gets when trying to balance the ever-growing demands of work with the never-ending needs of family. Vander-Zanden (1993) posits that stress neither resides in the individual nor in the situation alone but in how an individual defines a particular (stressful) event. Consequently,

some individuals seem to be more stress-resistant than others, by virtue of the attitudes they bring to influence their lives.

According to Lazarus and Folkman (1984) stress is a "nonspecific response of the body to any demands made upon it". In other words, as demands are made on an individual, or as situations arise, the body attempts to adjust or adapt to the situation in order to reestablish normalcy. They further stated that, there is a series of physiological reactions that occurs in response to environmental demands or any noxious stimulus.

The definition of stress depends on whose theory one follows. Theorists and researchers have defined stress in terms of external forces, internal responses, and an interaction of the two. According to Selye (1999) one of the first researchers to consider its effects, stress is a nonspecific response to real or imagined challenges or threats. Theorists who consider stress as a response define a stressor as an environmental stimulus that affects an organism, producing physical and psychological effects such as physical arousal and psychological tension and anxiety. Stress results from a cognitive appraisal of situations involving challenges or threats. Looking at this view, not all people view a situation in the same way; a person must appraise a situation as stressful for it to be stressful. Each of these views of stress has been important in guiding psychologist's research.

The broad definition recognizes that everyone experiences stress at times, but also that stress is an interpreted state; it is a response by an individual. Lazarus (2007), a leader in the study of emotion and stress, asserts that people actively negotiate between the demands of the environment (stressors) and personal beliefs and behaviours. Therefore, stress is the result of an interaction of events and people's evaluation of those events. Cognitive researchers refer to this active negotiation as cognitive appraisal. Sometimes the arousal that stressors bring about initiates positive actions; sometimes its effects are detrimental.

What influences an individual's cognitive appraisal, determining whether a particular event will be stressful? The answer lies in the extent to which the person is familiar with the event, how much she or he has anticipated the event, and how much control she or he has over the event and the response to it. For example, the first day of a new course brings excitement and some apprehension about the instructor's expectations and whether the time commitments for the course will be burdensome; the second or third time the class meets is usually much less worrisome. When people can predict events and are familiar with them, they feel more in control, more confident that they can have some impact on the future. That is, when people appraise that they have the resources to cope with an event, that event is not a threat. When people believe that they lack the resources to cope with a threat, then they experience stress. This view of stress includes a wider variety of potential stressors plus individual evaluation of these events.

The definitions of stress fall into three categories: stress as a stimulus, stress as a response, and stress as interaction between an organism and its environment. This classification corresponds very closely to the three models of stress identified by Cox (1979) as described below:

The engineering model sees external stresses giving rise to a stress reaction, or strain, in the individual. That stress is located in the stimulus characteristics of the environment, stress is what happens to a person (not what happens within a person). This concept is derived from Hooke's law of elasticity in physics, which deals with how loads (stress) produce deformation in metals. Up to a point, stress is inevitable and can be tolerated, and moderate levels may even be beneficial. Complete absence of stress (as measured, say, by anxiety or physiological arousal could be positively detrimental (for example you are so relaxed that you fail to notice the car speeding towards you as you are crossing the road). Stress helps to keep us alert, providing some of the energy required to maintain an interest in our environment, to explore it and adapt to it. However, when we are 'stretched beyond our limits of elasticity; it becomes positively harmful.

The physiological model is primarily concerned with what happens within the person as a result of stress (the 'response' aspects of the engineering model) in particular the physiological changes. The impetus for this view of stress was Selye's (1976) definition that 'stress' is the non-specific response of the body to any demand made upon it, while a medical student, Selye noticed a general malaise or syndrome associated with being ill, regardless of the particular illness. The syndrome was characterized by (i) a loss of appetite; (ii) an associated loss of weight and strength; (iii) loss of ambition; and (iv) a typical facial expression associated with illness. Further examination of extreme cases revealed major physiological changes (confirmed by Cox, 1979). This Non-specific response to illness reflected a distinct phenomenon, which Selye called General Adaptation Syndrome (GAS).

The transactional model represents a kind of the first two models. It sees stress as arising from an interaction between people and their environment- in particular, when there is an imbalance between the person`s perception of the demand being made of them by the situation, and their ability to meet those demands. As it is the person`s perception of this mismatch between demand and ability that cause stress, the model allows for important individual differences in what produces stress and how much stress is experienced. There are also wide differences in how people attempt to cope with stress, psychologically and behaviourally.

The engineering model is mainly concerned with the question 'what causes stress?', and the physiological model with question 'what are the effects of stress?' The transactional model is concerned with both these questions, plus 'How do we cope with stress?'.

2.2.2 Types of Stress

Stress is a physical and psychological response to perceived demands and pressure. In the stress response, people mobilize physical and emotional resources to cope with the demand and pressures. Psychologists distinguish four varieties of stress:

- **Acute stress** is what most people associate with the term stress. Acute stress results from the sudden onset of demands and is experienced as tension, headaches, emotional upsets, gastrointestinal disturbances, feeling of agitation, and pressure. September 11, 2001, was a day of acute stress for many people. Even for persons not directly involved in the terrible events of that day, many experienced the stress that comes from feeling that events are not under control (Peterson & Seligman, 2003).
- **Episodic acute stress** is more serious in the sense that it refers to repeated episodes of acute stress, such as a weekend job that is stressful or having to meet a deadline each month. Episodic acute stress can lead to migraines, hypertension, stroke, anxiety, depression, or serious gastrointestinal distress.
- **Traumatic stress** refers to a massive instance of acute stress, the effects of which can reverberate for years or even a lifetime. Traumatic stress differs from acute stress mainly in terms of the symptoms associated with the stress response. This collection of symptoms, called posttraumatic stress disorder (PTSD), is a syndrome that occurs in some persons following the experience of or witnessing life-threatening events, such as military combat, natural disasters, terrorist incidents, serious accidents, or violent personal assaults such as rape. Many persons in the United States experienced symptoms of PTSD after the September 11 terrorist tragedy. A study of refugees fleeing the war in Kosovo found that over 60 percent of them showed symptoms of PTSD (Ai, Peterson & Ubelhor, 2002). People who suffer from PTSD often relive the experience through nightmares or intense flashbacks, have difficulty sleeping, have

physical complaints, have flattered emotions, and feel detached or estranged from others. These symptoms can be severe enough and last long enough to significantly impair the person's daily life such as having trouble with personal relationships or difficulty holding down a job.

- **Chronic Stress** is another serious form of stress. It refers to stress that does not end. Day in and day out, chronic stress grinds us down until our resistance is gone. Serious systemic illness, such as diabetes, decreased immune system functioning, or cardiovascular disease, can result from chronic stress.

Causes of Stress

Psychologists, Psychiatrics, Counselors and Medical experts who are concerned about behaviour and its various normal and abnormal manifestations, described stress as uncomfortable and unhealthy force that upsets our physical, psychological, emotional and mental well being which is caused by different activities, events and life experiences.

Measures of psychological causes have to do with some self-related Issues like inner impulse, emotions, traits temperaments, dispositions, personality, self-image, self-concept, conflict between inner self and outside world and ones inability to satisfy aspirations and goals in life. Lahey (2003) gave frustration and conflict within self, between self and others and self and environmental factors as basic sources of stress. Aggarwal (2007) cited intrapsychic conflict between id, ego and super ego as stressful and poses challenges to cope with life. Other emotional causes are aggression, quarreling, fighting and nagging.

Psychologists and scholars like Murkherjee (2005); Sharma (2007); Lahey (2003) agreed that most life event whether positive or negative could lead to stress. This includes daily hustles, family and socio-economic engagements such as ceremonies, festivities, traveling, marriage, child birth, entering school and graduation, entering occupation, promotion, social responsibilities, leadership

and retirement. According to Erickson cited in Santrock (2001) our encounters or interpersonal relation with others at every stage of life has positive and negative implication, which causes stress and inability to cope and function well. The negative social related causes are divorce, conflicts, violence, crimes, assaults, victimization, hostility, deprivations, and failure in our personal, family or social commitments, financial problems and unemployment.

Natural and artificial happenings such as flood, hurricanes, earthquake, humidity, volcanic eruption, erosion, oil spillage, air pollution, wars, accidents, noises, hot and cold season, are known to cause stress. Paul and Adams as cited in Lahey (2003) revealed that volcanic eruption was extremely stressful to the residents of Othello near Washington where 200 percent stress related physical illness and psychological disorder were experienced and the number of death increase by 19%. Similarly physical assault, wars, terrorism were noted as causes of stress. Studies on the effect of September 11, 2001 attack on World Trade Centre and Pentagon found, that intrusive flash back were common symptoms for those near the attack and those who lost their loved ones and possessions.

Balarabe (2003) states that causes of stress among students have to do with lack of adequate feeding, clothing, accommodation and utilities like water, electricity, waste disposal, transportation, physical health, recreation and relaxation. He further states that strained relationship with students, lecturers and other significant people in the life of the students causes stress. The demands of Academic work such as difficulties with study; not having the requisite learning facilities, un-conducive learning environment, incompetent/unsupportive lecturers etc. are also causes of stress for students.

Leon-Guerrero (2009) in writing on the topic “The Stress and Strain of Life” tried to answer the question “what is the cause of stress?” simply put, he said stress occurs when the nervous system has been overworked because of a score of everyday worries. He explained that problems that are real or

imaginary, past, present or future have sapped the vitality of the nerve until they are unable to behave normally.

Lazarus (2000) expresses the view that conditions place the organism under strain, the homeostatic mechanism no longer operate smoothly and that if the stresses continue, the organism may suffer injury as a consequence of its own efforts to meet the stress. In his opinion, the agents and events that can place the organism under stress include infections, nervous strain, physical injury, excessive heat or cold and muscular fatigue.

Iwuji (1990) in her work describes stress as part of life and that; living is a continuous battle with stress. She affirms that in order to ensure man's survival and exploration of his environment, nature built into him some stress factors to spur him into action. According to her, it was the stress or discomfort of hunger that led man to cultivate food and that sexual stress leads to procreation and continuation of life. Her studies show that almost every critical event of our life such as marriage, death of a spouse, change of financial position or ceremonial occasion carries with it certain amount of stress.

Causes of stress are usually linked with stressful or unpleasant events, or traumatic consequences that befall an individual such as losing a job, death of an only child, or having difficulty with domestic chores at home or difficulties with learning at school. Holmes and Rahe in Vander-Zanden (1995) developed a 43 item Social Readjustment Rating Scale to measure the amount of stress required by life events using "Life-change Units" on a scale from 1 to 100. They ranked the following (among others) as the top 10 causes of stress:

1. Death of spouse
2. Divorce
3. Marital separation
4. Jail term

5. Death of close family member
6. Personal injury/illness
7. Marriage (marital conflict)
8. Losing a job
9. Marital reconciliation
10. Retirement

Some environments may be hazardous to people's health. A neighborhood environment may contain many factors that contribute to stress. Many of these factors revolve around poverty and the communities in which poor people live. People in low socioeconomic groups often live in overcrowded and substandard housing, lack access to services such as banks and stores, experience high noise levels, and live with the threat of crime and violence (Selye, 1999). These situations often combined to produce the type of stressors called hassles, such as having trouble cashing a check, and the type of life events that are related to PTSD, such as witnessing or being the victim of violence.

Even people who are wealthy do not escape the stresses of urban living. Taylor (2006) formulated the term urban stress to describe the multitude of factors that combine in modern urban life. These factors include crowding, pollution, noise, commuting stress, and fear of crime. Taylor argues that these factors are a constant presence for city dwellers, and their combination produces a level of stress that is not accounted for by each stressor considered individually. These environments can be detrimental in several ways - when safety is threatened, when the environment prevents people from forming social ties, and when conflicts occur in schools, in families, and on the street.

Lack of time is another common source of stress. Everyone faces deadlines: students must complete tests before class ends. They have only a limited number of hours each day in which to accomplish tasks, and students who work long hours often have no time for leisure. If they do not handle time pressure successfully, they may begin to feel overloaded and stressed (Zubairu, 2008).

Other causes of stress include long-lasting ill-health mental or physical disability, alcoholism, family conflict, failure in academic work, lack of suitable play outlets etc. These stress syndromes make the student to develop acute or chronic stress whose effects are very damaging not only to his mental health, but to his existence.

The causes of stress don't exist objectively, and individuals differ in what they see as a stressor in the first place ((Lazarus, 2000). The kinds of event or experience that most people are likely to find exceed their capacity to handle the demands that are involved. The word 'circadian' (meaning 'about one day') describes a particular periodicity or rhythm of a number of physiological and behavioural functions that can be seen in almost all living creatures. Many studies have shown that these rhythms persist if we suddenly reverse our activity pattern and sleep during the day and are active during the night. This indicates that these rhythms are internally controlled (endogenous).

However, our circadian rhythms are kept on their once-every-24-hours schedule by regular daily environmental (exogenous) cues called *zeitgebers* (from the German meaning 'time givers'). The most important *zeitgeber* is the daily cycle of light and dark. If we persist with our reversal of sleep and activity, the body's circadian rhythms will (after a period of acclimatization) reverse and become synchronized to the new set of exogenous cues.

Some people take five to seven days to adjust, others take up to 14 days, and some may never achieve a complete reversal. But not all physiological functions reverse at the same time: body temperature usually reverses inside a week for most people, while the rhythms of adrenocortical hormone take much longer. During the changeover period, the body is in a state of internal desynchronisation. This is very stressful, and shift workers often report experiencing insomnia, digestive problems, irritability, fatigue, even depression, when changing work shifts. Among fresh students, the zeitgebers stay the same, but students are forced to adjust their natural sleep-wake cycles in order to meet the demands of university environment.

According to Snyder (2001) the psychosocial transitions that are most dangerous to health are those that are sudden and allow little time for preparation. The sudden death of a relative from a heart attack, in an accident or as a result of crime are examples of the most stressful kind of life changes. Morgan, Richard, Weisz and Schoplar (2001) found that life events stress was more closely related to psychiatric symptoms (in particular, depression and anxiety) among people rated as high on external locus of control, than among those rated as high on internal locus of control. In other words, people who believe that they don't have control over what happens to them are more vulnerable to the harmful effects of change than those who believe they do.

Hassles are the irritating, frustrating, distressing demands that to some degree characterize everyday transactions with the environment. They include annoying practical problems, such as losing things or traffic jams and fortuitous occurrences such as inclement weather, as well as arguments, disappointments, and financial and family concerns. Daily uplifts are positive experiences such as the joy derived from manifestations of love, relief at hearing good news, the pleasure of a good night rest, and so on.

In a study of 100 men and women aged 45 – 64 over a 12- month period, Delongis, (2000) confirmed the prediction that hassles were positively related to undesirable psychological symptoms. But the effect of uplifts was unclear, and research interest waned. Mc Ewen (2001) also found that hassles were a more powerful predictor of symptoms than life events (as measured by the Social Readjustment Rating Scale SRRS): Divorce, for example, may exert stress by any number of component hassles, such as cooking for oneself, handling money matters and having to tell people about it. So, daily hassles, may intervene between major life events and health. It is the cumulative impact of these day-to-day problems that may prove detrimental to health.

According to Lazarus (2007) life events (as measured by the SRRS) are distol (remote) causes of stress. We need to know the psychological meaning a person attaches to an environmental events,

the personal significance of what's happening (the proximal cause). Although daily hassles are far less dramatic than major life changes…….. and what constitutes a hassle varies greatly from person to person, research has suggested that, especially when they pile up or touch on special areas of vulnerability….. they can be very stressful for some people and very important for their subjective well-being and physical health. Borod (2000) claims that implicit in the concept of hassles is a stimulus based definition of stress. This is inconsistent with the transactional approach advocated by Lazarus. This apparent contradiction stems from focusing on the hassles themselves, while simultaneously believing that it's their psychological meaning that causes stress.

Effects of Stress

So far, various opinions expressed on the meaning and causes of stress have been examined. There is no doubt that stress will constitute serious problems that distract the students from maximum academic output and effective social life. Therefore, it is relevant to examine some of the opinion expressed on the effects that stress can have on people, particularly on students at the tertiary level of education.

Stress makes an individual to be constantly tensed, worried and can edge such that he or she is in panic, fear, and feels threatened (Kiel, 2004). This state of disorder distorts mental, school, family and responsibilities such that an individual's interactions, competence and productivity diminish. In work place, he / she is not efficient, and unable to meet deadlines. In school he/she lack concentration and performs poorly, in the family, he is harsh to his kids and wife and is prone to engage in physical battering and abuse.

From a biological perspective, it seems that a high-arousal fight-or-flight biological mechanism sculpted by evolution to help us survive life - threatening physical stressors may be maladaptive for dealing with the psychological stressors of modern life. In terms of survival, taking an examination or sitting in rush-hour traffic is not equivalent to an attack by a hungry

tiger, where high arousal could facilitate fighting or fleeing. In Selye's view, our physiological responses may thereby take an unnecessary toll on our physical and psychological well-being. Selye's work inspires a generation of psychological and medical researchers to explore the effects of stress on psychological and physical well-being.

According to Selye (1999) the General Adaptation Syndrome (GAS) represents the body defence against stress. The body responds in the same way to any stressor, whether it's environmental or arises from within the body itself. Selye initially observed that injecting extracts of ovarian tIssue into rats produce enlargement of the adrenal glands, shrinkage of the thymus gland, and bleeding ulcers. When he used extracts of other organs (Pituitary, kidney, spleen), as well as substances not derived from bodily tIssue, the same responses were produced. He eventually found that the same 'triad' of 'non-specific responses could be produced by such different stimuli as insulin, excessive cold or heat x-rays, sleep and water deprivation and electric shock. GAS comprises three stages: the alarm reaction, resistance and exhaustion.

Alarm reaction: When a stimulus is perceived as a stressor, there's a brief, initial shock phase. Resistance to the stressor is lowered. But this is quickly followed by the counter shock phase. The sympathetic branch of the ANS is activated, which, in turn, stimulates the adrenal medulla to secrete increased levels of adrenaline and noradrenaline (catecholamines).

These are associated with sympathetic changes, collectively referred to as the fight or flight syndrome. The catecholamines mimic sympathetic arousal ('sympathomimetics'), and noradrenaline is the transmitter at the synapses of the sympathetic branch of the ANS. Consequently, noradrenaline from the adrenals prolongs the action of noradrenaline released at synapses in the ANS. This prolongs sympathetic arousal after the stressor's removal.

Resistance: If the stressor isn't removed, there's a decrease in sympathetic activity, but an increase in output from the other part of the adrenal gland, the adrenal cortex. This is controlled by the amount of adrenocorticotrophic hormone (ACTH) in the blood. ACTH is released from the anterior pituitary (the 'master' endocrine glad) on instructions from the hypothalamus. The adrenal cortex is essential for the maintenance of life and its removal results in death.

The effect of ACTH is to stimulate the adrenal cortex to release corticosteroids, one group of which is the glucocorticoild hormones. These control and conserve the amount of glucose in the blood which is to resist stress of all kinds.

Exhaustion**:** Once ACTH and corticosteroids are circulating in the bloodstream, they tend to inhibit the further release of ACTH from the pituitary. If the stressor is removed during the resistance stage, blood sugar levels will gradually return to normal. But when the stress situation continue, the pituitary-adrenal excitation will continue. The body's resources are now becoming depleted, the adrenal can no longer function properly, blood glucose levels drop and, in extreme cases, hypoglucaemia could result in death.

It's at this stage that psychophysiological disorders develop, including high blood pressure (hypertension) heart disease (coronary artery disease, CAD), coronary heart disease (CHD), asthma and peptic (stomach) ulcers. Selye called these the diseases of adaptation.

Effects of stress on psychological well-being are clearest and most dramatic among people who have experienced catastrophic life events. Rubonis and Bickman (1991) surveyed the result of 52 studies of victims of catastrophic floods, hurricanes and fires in the wake of natural disasters, they found an average increase of 17 percent in rates of psychological disorders such as anxiety and depression. Some women who experience the trauma of rape have psychological scars that are intense and long-lasting. In one long-term study of female

rape victims, a quarter of the women felt that they had not recovered psychologically six years after the rape (Valent, 2000). Even more common stressors such as unemployment leave scars. In a 15 years longitudinal study of German workers, unemployment led to significant declines in subjective well-being and, even after regaining employment, the workers never returned to their previous level of life satisfaction (Feist & Rosenberg, 2010). Many medical and psychological researchers have therefore concluded that stress causes distress, and this conclusion has been widely accepted among the general public and in the mass media.

There are indications that stress can combine with other physical and psychological factors to influence the entire spectrum of physical illnesses, from the common cold to cancer, heart disease, diabetes and sudden death (Valent, 2000). Sometimes the effects are immediate. Earthquake, flood, collapsed buildings, hurricane e.t.c are examples of such physical factors that cause heart attacks and sudden death.

Other effects of major stressor on physical well-being are less immediate but no less severe within one month following the death of a spouse, bereaved widowers begin to show a higher mortality rate than married people of the same age who have not lost a spouse (Feldman, 2009), and within one year of spousal death, about two-thirds of bereaved people decline to health. A notably increased rate of mortality is found in men, who tend to respond to the death of their spouse with relatively greater distress and health declines than do women (Rubonis & Bickman., 1991). Stressful life events have also been linked to a higher risk of developing cancer. Linked to a long-term stress and illness are not surprising, for physiological responses to stressors can directly harm other body systems. For example, the secretion of stress hormones, such as epinephrine, norepinephrine and cortisol, is a major part of stress response. These hormones affect the activity of the heart, and excessive secretions can damage the lining of the arteries. By reducing fat metabolism, the stress hormones can

also contribute to the fatty blockages in arteries that cause heart attacks and strokes (Myers, 2005).

Stress can also contribute to health breakdown by causing people to behave in ways that increase the risk of illness. For example, people with diabetes can frequently control their disease through medication, exercise and diet. When under stress, however, diabetics are less likely to regulate their diets and take their medications, resulting in an increased risk of serious medical consequences (Feency & Foa, 2000). People are also more likely to quit exercising when under stress, even if the primary reason they began exercising in the first place was to reduce stress. Stress may also lead to smoking, alcohol and drug use, sleep loss, undereating or overeating, and other health-compromising behaviours. Poor dietary and sleep patterns in students studying for examinations may increase risk of illness and help ruin the semester break.

It is clear that stress can temporarily weaken the immune system and put one under too much stress, the body becomes exhausted. If one is stressed, one is exposed to risk factors for disease (Selye, 1999). For example smokers may smoke more if they are stressed, and people who drink alcohol to relieve stress, may have heart attack or stroke may develop certain diseases which may lead to pre-mature death (Johnson & Malow-Iroff, 2003).

It is clear that stress can cause a lot of harm to an individual. When a person is exposed to a stressful event or situation, he first experiences an alarm reaction, which mobilizes his body to meet the threat by secreting the stress hormones. These hormones (adrenaline and cortisol), in turn, prepare the individual body for actions against the stress event as follows:

i. The heart rate and blood pressure increases, forcing blood to part of the body that may need it for strenuous physical activity.

ii. Individual's digestion slows or ceases, so that more blood is unavailable to other organs.

iii. The breathing rate accelerates to provide increased oxygen to blood stream.

iv. The muscle is tensed up in preparation for an emergency response or action.

v. The individuals perspiration increases, acting as a coolant to cool the body.

vi. Clotting agents are released in the person's blood to prevent loss of blood in case of injury (Lazarus, 2007).

Research has shown that these physiological stress responses or stress reactions can actually depress the immune system of the individual, thereby setting the stage for the individual's body to be attacked by a variety of illness (Vander-Zanden, 1995). Also research conducted by Fritz, Nagurney and Helgeson (2003) in USA, reveals that high levels of psychological stress can nearly double a person's chances of catching other illnesses, while at the same time such an individual's resistance to viral infection is appreciably lowered. These finding has a link with diseases. Stress plays a role in the onset and progress of cancer in humans.

It is also found that, circumstances of extreme stress, such as that experienced by torture victims can contribute to long term mental and neurologic symptoms, including: impaired memory, anxiety, depression, sleep disturbances, sexual dysfunction among others. All these, put together, can lead to irreversible brain damage associated with cerebral atrophy (Rasmussen & Lande, 1980). Whereas, adequate sleep is vital for proper brain functioning, especially in children, research has shown that stress hormones can actually modify sleep-wakefulness cycles (Laura, 2007). He also reported that people who regularly do not get enough sleep on account of stress, can become less sensitive to insulin. This situation therefore increases children and adult risk for diabetes and high blood pressure both of which are serious threat to brain development and function in children.

Diego (2004) in his research evidence states that prenatal and early life stress in children can have profound long-term effects on the developing central nervous system (CNS) and its regulation of basic physiology and immune function of the human body. His study further reveal that early life stresses can actually lead to later cognitive (mental) impairment as the child develops to adulthood.

Also, according to Diego (2004), stresses such as child neglect and child abuse during infancy may result into such effects as memory loss and impaired cognitive abilities that manifest later in life of the individual. Further research suggests that, the gradual collapse of the immune system in the child as a result of stress may be due, in part, to deficits in nitric oxide (NO), which acts as signaling system in the brain known to connect the immune and stress systems (Richardson, Lee, Seo & Rivier, 2004).

Research evidence has also estimated that two-thirds of all visits to physicians in health institutions are generally for stress-related problems. Consequently, recent research findings indicate that the physical changes associated with stress may account for the leading causes of human death especially cardiovascular (heart) diseases and cancer (Romeo, McEwen & Folkman, 2006). The stress effects on the child's mental health development include the following:

i. Stress can cause digestive upsets, headaches, back pain and chronic fatigue even without much exertion from the affected individual.
ii. Stress reduces the immune system of the body, thereby making the person more susceptible to catch colds and other diseases.
iii. Constant stress increases blood pressure (high BP) and, as such increases or enhances the person's risk for stroke.
iv. Stress triggers behavior that contributes easily to death and disability, such as (a) smoking, which leads to lung cancer or bronchitis, (b) alcoholism, (c) drug abuse (d) overeating.
v. Effect of stress leads to diminished sexual desire (i.e sexual dysfunction) and inability to reach orgasm.

According to Lazarus and Folkman (2007), the extent to which an individual experiences stress effect depends on the appraisal he makes of the stressful situation at three points in time i.e:-

i. The relevance, positive, or potential danger posed by the event.

ii. The ability of the person to cope with or handle the new event or stressful situation.

iii. How much stress the situation actually causes the person involved.

Positive Effects of Stress

The effects of stress are not entirely negative. Recent years have brought increased interest in the positive aspects of the stress process, including favorable outcomes that follow in the wake of stress. To some extent, the new focus on the possible benefits of stress reflects a new emphasis on "positive psychology". Some theorists have argued that the field of psychology has historically devoted too much attention to pathology and suffering (Seligman & Csikszentmihalyi, 2000). The advocates of positive psychology argue for increased research on well-being, hope, courage, perseverance, tolerance, and other human strengths and virtues (Peterson & Seligman, 2004).

One of these strengths is resilience in the face of stress. Resilience refers to successful adaptation to significant stress and trauma, as evidenced by a lack of serious negative outcomes.

Research also suggests that stress can promote personal growth or self-improvement (Calhoun & Tedeschi, 2008). For example, studies of people grappling with major health problems show that the majority of respondents report they derived benefits from their adversity, stressful events sometimes force people to develop new skills, re-evaluate priorities, learn new insights, and acquire new strengths. In other words, the adaptation process initiated by stress may lead to personal changes that are for the better. Confronting a stressful challenge may lead to improvements in specific coping abilities and reduced reactivity to future stressful events (Sideridis, 2006). Thus, researchers have begun to explore the growth potential of stressful events.

Positive role of stress, which benefits man, includes the following:

i. Stress signals an individual to prepare for action to survive a potential threat or danger.

ii. Positive (moderate) stress inspires a child or adult to do his best and to perform better than if he were under no stress at all.

iii. Positive stress gives the child or adult the focus and confidence to take appropriate steps to handle a situation.

iv. Positive stress motivates a person to take action by marshalling defenses against the existing stressful event/situation.

v. Moderate stress provides the outlet for the individual to express talent and energies and also helps him to pursue happiness.

Thus, a moderate amount of stress is necessary in human life. Also, when stress is properly managed, it teaches the student to cope with difficult circumstances and solve difficult problems, which can increase his confidence to deal with future stressful situations.

It is important to recognize which type of symptoms one is exhibiting in order to aid stress reduction and implement the most beneficial strategies. Prior to assisting oneself or another, it is important too to know what actually is happening and be aware of changes in behaviour, thought processes or physiological responses.

2.2.3 Concept of Coping Strategies

Stress has been defined as a demand that tasks or overpowers a person's resources (Lazarus, 1978). We can see that persons facing such a demand will remain in trouble unless and until they do something to neutralize it. Whether the problem is appraised as a challenge, an injury, loss or threat, they must be dealt with. Therefore, what an individual does to master the situation is most commonly referred to as coping (Cox, 1979; Wolfe, 1979).

Coping according to Aldwin (1996) refers to the thought and behaviour we use to handle stress or anticipated stress with individual differences in coping style impressively large. Variability in coping style became clearer to the researcher when two of her friends lost their husbands through cancer. While one of them could not stand the stress of speaking or returning pleasantries to their sympathizers, the other organized the funeral service, read her husbands funeral oration while greeting all that attended with warmth and strength although both had had wonderful relationships with their husbands, they responded to their situations in different ways.

Having described stress as an inevitable aspect of living from which there is no escape, it becomes necessary that we have some sort of control mechanism to minimize its effect. Since frustration, conflicts and pressures will continue to bombard man, identifying and tackling stress/stressors to a reasonable extent becomes mandatory. After all, too much of everything is always bad. Maimasari (2002) opined that the most vital requirements for coping with stress are awareness, acceptance, responsibility and coping skills. One must be aware of his/her level of stress. That takes us to accept that what one is today is as a result of life experiences and that change is always possible. It is thereby acknowledged that the responsibility for change begins with one. Whatever one's stressors is, a noisy living environment, filthy surroundings, uncomfortable accommodation and others, one must learn not to shift blames.

Mathany, Ayucok, Push, Curriller and Silva (1986) defined coping as any effect, healthy or unhealthy, conscious or unconscious to prevent, eliminate a weaker stressors, or tolerate their effects in the least hurtful manner. On the other hand, Papalia and Olds (1985) defined coping as a response to stress that has two major functions. The first is feeling the problems, while the second allows us to manage stress-related environment and physical

responses so that one can continue to function. Davidoff (1987) views coping as an orderly pattern by which humans continually assess the goings on in their lives on a moment-to-moment basis in order to evaluate events that appear threatening.

In general, coping means dealing with a situation. However, for a psychologist, coping is the process by which a person takes some action to manage, master, tolerate, or reduce environmental and internal demands that cause or might cause stress and that will tax the individual's inner resources. This definition of coping involves five important assumptions. First, coping is constantly changing and being evaluated and is therefore a process or a strategy. Second, coping involves managing situations, not necessarily bringing them under complete control. Third, coping is effortful; it does not happen automatically. Fourth, coping aims to manage cognitive as well as behavioural events. Finally, coping is learned.

2.2.4 Types of Coping Strategies

Although, there are countless ways people might respond to stressors, coping strategies can be divided into three broad classes: Problem-focused coping, Emotion-focused coping, and Seeking social support. Problem- focused coping strategies attempt to confront and directly deal with the demands of the situation or to change the situation so that it is no longer stressful. Examples of Problem –focused strategy may include studying for a test, going directly to another person to work out a misunderstanding, or signing up for a course to improve one's time management skills.

Problem-focused coping involves strategies that aim to change the situation that is creating stress. For example, if your roommate plays a stereo loudly while you are sleeping, you might choose to discuss it with her, buy earplugs, or cut the speaker wires. Each of these choices is a form of problem-focused coping, as each is geared toward changing the situation that created the stress. Examples of problem-focused coping strategies include devising a plan

to solve the problem, seeking social support as a way to gather information, and taking assertive action. Problem-focused coping tends to focus attention on the stress-provoking situation, and we are most likely to use it when we feel that we can do something to change the situation.

Feldman (2009) states that problem-focused coping attempts to modify the stressful problem or source of stress. Problem-focused strategies lead to changes in behavior or to the development of a plan of action to deal with stress. Starting a study group to improve poor classroom performance is an example of problem-focused coping. In addition, one might take a time-out from stress by creating positive events. For example, taking a day off from caring for a relative with serious, chronic illness to go a health club or spa can bring significant relief from stress.

Rather than dealing directly with the stressful situation, Emotion–focused coping strategy attempt to manage the emotional responses that result from it. Some forms of Emotion –focused coping involve appraising the situation in a manner that minimizes its emotional impact. A person might deal with the stress from an interpersonal conflict by denying that any problem exists. Other forms involve avoidance or acceptance of the stressful situations. Thus, a student might decide to deal with anxiety about an upcoming test by going to a party and forgetting about it. Informed that he has a terminal illness, a man might decide that nothing can be done about the situation and simply accept this unwelcoming reality-or he might use the avoidance strategy of discontinuing medical treatment and keeping the illness a secret, even from close family members.

Emotion-focused coping aims to regulate the experience of distress. Lazarus and Folkman (2007) describe several forms of emotion-focused coping, including reappraisal, the emotional regulation strategy of reevaluation of a situation in light of new information or

additional thought; distancing, or attempting to separate oneself from an emotional experience; escape-avoidance, wishful thinking or doing something to get one's mind off the situation (such as going to the movies); seeking social support by talking with friends for purposes of emotional support; self-control, or trying to regulate one's feelings or actions regarding the problem; and accepting responsibility, acknowledging one's role in the stress-eliciting situation.

Emotion-focused coping may be beneficial when a situation is beyond one's control, and certain types of emotion-focused coping – especially reappraisal- can be helpful in regulating the emotional aspects of stress. But it can also be problematic. Willful suppression of upsetting emotions, which is a form of self-control, can lead to chronic physiological arousal and is associated with poor psychological adjustment (Gross, Richards & John, 2006). Moreover, some strategies that we use to reduce the experience of distress, such as drinking, smoking, and other forms of drug use, may be maladaptive.

It is widely believed that a good way to cope with stress is to vent, or "let it all out". The implication is that relieving ourselves of a burden can be beneficial. Feldman (2009) developed and tested a technique known as emotional disclosure that enables people to unburden. In a typical emotional disclosure task, people are instructed to write for about 15 minutes about a recent emotional experience – in particular, one that they have found troubling, that still bothers them from time to time, and that they haven't discussed much with other people. Emotional disclosure consistently improves a number of health outcomes, including health variables related to HIV/AIDS, immune function, and cancer.

How might writing about one's emotional experiences, especially traumatic ones benefit health? There are several possible explanations, people in most cultures believe that

confession is beneficial. For the Ndembu of West Africa, for instance, public confession allows for the transformation of negative feelings into positive ones in the community, thereby promoting social harmony (Mathren, 1998). It is also thought that not working through difficult emotions taxes the body, as research on the association between emotional suppression and ANS arousal suggests. When confession or disclosure occurs, then, one should observe a decrease in sympathetic nervous system activation or a return to a more relaxed state. In fact, numerous laboratory studies have found that just talking about a traumatic event creates noticeable reductions in autonomic measures such as blood pressure and sweating (Diego, 2004).

A third class of coping strategies involves seeking social support that is, turning to others for assistance and emotional support in times of stress. Thus, the student might seek the help of a class-mate in preparing for the test, and the man with the terminal illness might choose to join a support group for the terminally ill.

Social support is one of the most important environmental resources (Keil, 2004). The knowledge that we can rely on others for help and support in a time of crisis helps blunt the impact of stress. In contrast, lack of social support is a significant vulnerability factor. One way that social support protects against stress is by enhancing immune system functioning. Taylor (2006) studied people whose spouses were being treated for cancer and who were experiencing psychological distress. When they were exposed to an antigen, spouses who rated themselves as high in social support produced more immune cells, particularly at high levels of the allergen, than did those who indicated lower social support in their lives. These results may help explain why people who have high levels of social support are more disease-resistant when they are under stress. Many other studies show that social support decrease psychological distress in people who are dealing with stressful life events of all kinds.

Besides enhancing immune system functioning, social support has a number of other stress-buffering benefits. People who feel that they are part of a social system experience a greater sense of identity and meaning in their lives, which in turn results in greater psychological well-being (Coyne, 1991). Social networks also reduce exposure to other risk factors, such as loneliness. Third, having the backing of others can increase one's sense of control over stressors. Finally, true friends can apply social pressure to prevent people from coping with stressors in maladaptive ways (e.g, through alcohol or drug use).

Social support benefits the giver as well as the recipient. In one five - year longitudinal study of elderly people, Leibenluff (2002) found that those who gave help and support to friends, relatives and family members had lower mortality rates than those who did not, even when health and other quality-of-life variables were statistically controlled. Likewise highly sociable people are more resistant to infectious diseases, despite their greater exposure to other people who might be contagious. Considerable evidence suggests that high levels of social support can have beneficial effects on health and well-being. There are, however, a number of studies reporting contradictory findings. Social support has been associated with, for example, adverse effects on well-being (Resick, 2005), and has even been shown to aggravate the effects of stressors (Rook, 1984). One explanation for the sometimes equivocal relationship between social support and decreased psychological distress comes from a study by Schwarzer (2000). The data showed that receiving social support was associated with distress among a sample of "disabled" individuals, because receiving support threatened the equitable balance of their social relationships. In other words, the distress resulted from people wondering if they could ever 'pay back' the donor of social support.

Although people often used several coping methods in dealing with a stressor, problem-focused coping methods and seeking social support were most often associated with favourable

adjustment to stressors. In contrast, emotion-focused strategies that involved avoiding feelings or taking things out on other people predicted depression and poorer adjustment. Other studies have yielded similar results. In children and adults and across many different types of stressors, emotion-focused-strategies that involve avoidance, denial and wishful thinking seem to be related to less effective adaptation (Valent, 2000). On the other hand, there are adaptive emotion-focused strategies, such as identifying and changing irrational negative thinking and learning relaxation skills to control arousal. When you are transgressed against by someone else for example, people often think negatively about this person, reacting by experiencing un-forgiveness. One emotion-focused strategy that has been shown to reduce stressful reactions to such transgression is by forgiving the other person thereby changing negative thinking (Gross, Richards & John, 2006). Such emotion-focused strategies can thus be effective methods for reducing stress responses without avoiding or distorting reality.

More recently, researchers have studied differences between problem-focused strategies and emotion-focused strategies (Lazarus & Folkman, 1984). Problem-focused coping attempts to deal directly with the situation, viewing it as a problem to be solved. By contrast, emotion-focused coping concentrates on the individual's internal emotional state, and leads to avoiding the problem, blaming oneself, or engaging in fantasy or wishful thinking as responses to the stressful situation. Unlike Selye's model, Lazarus and Folkman did not suggest that one strategy is always preferable. Instead, they suggested that problem-focused strategies are more likely to be used when the situation is perceived as being controllable for example in dealing with work-related stressful situations. By contrast, they argued that emotion-focused coping is likely to occur in dealing with situations that are perceived as not controllable-for examples, health problems or a natural disaster (such as one's home being destroyed by a storm). Research suggests that matching of strategy and perceived control does tend to occur, but

interestingly, the results do not demonstrate that changing coping strategies necessary leads to less stress (Zakowski, Hall, Klein & Baum, 2001). In fact, a recent study indicates that the combination of both forms of coping strategies is most effective in handling stress (Sideridis, 2006).

Clearly, a number of factors influence stress, both within the individual and within the situation. While it would be appealing to end this discussion with a precise statement about how to cope with stress, at present, defining an "Optimal" response is not possible. This may reflect the difficulty in defining a stressor, or maybe we need to rethink the nature of stress itself. One researcher, endocrinologist Bruce McEwen, has argued for the concept of "allostasis", which considers stress within the context of the energy demands of behavior (McEwen, 2005). McEwen has argued that this concept can explain the relationship between "normal" behavior (such as foraging, breeding or migrating) and stressful situations; for example, foraging is not normally stressful, but would cause stress when food is scarce. In addition, he has suggested that allostasis can also shed light on factors such as gender differences in stress. The later point has also been supported by psychologist Shelley Taylor and her colleagues, who suggest that women are more likely than men to engage in nurturing and socializing as ways of coping with stressors (Taylor, Klein & Lewis, 2000).

Given the variations in the way individuals respond, the most reasonable advice that can be given in terms of coping with stress is that we should:

- acknowledge how our perceptions influence our reactions;
- recognize when we are stressed; and
- develop a range of possible coping responses.

In defensive coping, we attempt to defend ourselves against the situation rather than dealing with it directly. And sometimes we try to prevent it by means of drugs and alcohol.

Psychologists call the indirect method defense mechanism. Defense mechanism has been regarded as unconscious psychological processes, mental or symbolic that people develop to take away anxiety, a means of wading off anxiety and other negative feelings. According to Maisamari (2002) most psychologists today see defense as psychological maneuvers for coping with both internal and external stressors that threaten the individual's well-being.

Denial is a reality coping-distorting defense because it blocks the ability to perceive. An example is a student who is withdrawn from school but he/she keeps making plans for National Youth Service. In intellectualization, perception is not distorted but the environment around that accompanied stress is blocked for conscious awareness. Although defense mechanisms can alleviate stress that does not mean that they are ultimately beneficial to the person. They change the person not the situation. In fact, it is often regarded by some psychologists as physical disturbance and they are not beneficial when they interfere with coping methods. It should be used as a last resort.

Phinney and Haas (2003) came up with other coping behaviours. According to him, they range from dangerous through anti-social, strange to normal. Among the dangerous coping behaviours are drinking, smoking, over eating, use of drugs and hyperactivity.

Denial is one of the major protective psychological mechanisms that enable people with the flood of feelings that occur in a stressful situation (Kalish, 1981). Believing that you will be going to National Youth Service Corps (NYSC) when you know you are not doing well can only help to avoid the shocking and destructive impact by postponing the time when one has to deal with stress.

Nonetheless, in some cases, a strategy of defensive pessimism may work best in handling stress, that is, imagining negative outcomes, the individual may be able to prepare for forthcoming stressful circumstances (Showers & Cantor, 1985; Norem & Cantor, 1986). This

means that positive as well as negative thinking are involved with coping with stress. According to Davidson, Smith and Levine (1978) physical exercise is a highly effective technique for reducing stress. Unlike the use of sedative drugs, exercise is an active approach to coping with psychological reactions to stress. Brisk walking, tennis, basketball, jogging, swimming, volleyball and other such exercises are examples of useful exercises under stressful situations (Phinney & Haas, 2003).

Because stress takes a toll on people's physical and psychological well-being, much effort has gone into developing methods for reducing stress. Psychologists suggest that an individual can reduce stress by modifying any of its major components. Thus an individual can change the situation that constitutes the stressor, modify cognitive appraisals that trigger the rest of the stress response, or learn ways to control the physiological arousal. Finally, one can adopt more effective behaviors for meeting the demands of the situation.

Another approach to changing cognitions does not involve attacking irrational ideas that cause disturbance. In self-instructional training, people learn to talk to themselves and guide their behavior in ways that help them cope more effectively (Pearlin, 2003). They prepare different self-instructions to use at four critical stages of the stressful episode: preparing for the stressor, confronting the stressor, dealing with the feeling of being overwhelmed and appraising coping efforts after the stressful situation.

Many people cope with stress by seeking support from other people. In their own opinion, Connidis and Davies (1990) family, friends, social as well as religious groups can provide emotional reassurance, boost self – esteem and express their caring concern. They went further to say that companions and confidants can enhance emotional and physical well-being. However, Coyne (1991) said that the above stance ignores the fact that all relationships have costs. They maintained that even good relationships can sometimes be a source of stress.

Women who had good relationships were likely to experience stress. Because of their traditional responsibilities for taking care of others, women incur higher costs of caring than men, indeed, according to Helgeson (1988) excessive attention to either one's well being or that of others increases health risks. They concluded by saying that a balance perspective is healthier.

Furthermore, some research suggests that people who discuss their traumatic experiences with others may actually improve the functioning of their immune system (Penebaker, 1997). For instance, Penebaker asked healthy undergraduates to write about either superficial topics (control group) or traumatic experiences (experimental group) during brief daily sessions. Measures of immune system showed that lymphocytes were more responsible in those students who had discussed their traumatic experiences. The experimental group also showed a drop in the number of visits to the health center relative to the control group.

In their own observation, Kaplan and Tashima (1990) said that social support takes three major forms each of which he said, performs a crucial function. One form consists of giving the individual and practice problem-solving guidance in dealing with stressful life events. This is important because stress reduces ones cognitive efficiency. A second form of social support consists of giving care, affection and nurturance. This form helps to maintain self-esteem and booster confidence. Thirdly, Kaplan maintains that social supports can provide encouragement and re-assurance. This is the encouragement that one is able to master the stressful situation and re-assurance that one's life will return to normal. The importance of social support in moderating the impact of stressful life event is considerable. On intellectual level, having someone to talk to give us a sounding bond, a second opinion advice, information we struggle for solution to our problems (Clark, 1993).

Again, Kemeny (2004) noted that if someone experiencing stress in his work has a supportive environment, the effect of stress can be greatly reduced. Rook (1984) on the other hand, said that social contacts are more important in stressful relationship. Those who have them are more distressed. He maintained that most relationships are neither all good nor all bad, but have both good aspects and bad ones. Nathan (2002) seemed to support this when he said that college students who lack control over their social contacts in an impoverished overcrowded living conditions are more stressed than those living in less crowded circumstances. They also have less social support due to social withdrawal (Lepore, 1992).

In a study of college students, perceived support from a friend reduced psychological distress when there was conflict with a roommate. Similarly, perceived support from a roommate reduced psychological distress when there was own conflict with a friend (Lepore, 1992). Like multiple positive identities and satisfying social rules, multiple sources of social support promote well-being. In his own opinion, Aldwin (2007) said that although the presence of a friend can increase reactivity under embarrassing conditions Kamarck, Manuck and Jennings (1990) stressed that having a friend nearby usually reduces reactivity to stress.

People vary enormously in their ability to cope with stressors, and some of that variation is due to personal resources that contribute to resilience, the extent to which people are flexible and respond adaptively to external or internal demands. A person who is resilient is said to be less vulnerable to stressors (Santrock, 2001). Factors that influence coping include personal resources and a sense of control.

Personal resources include a variety of factors, ranging from money to good health. Money and other material resources can be an important factor in dealing with both daily hassles and with life events. Social skills and knowledge are also personal resources that affect coping. People who are socially skilled are better at getting along with others and are at ease in social situations. These

individuals are less likely to feel stressed by having to attend a social gathering or make a speech than individuals who are less socially skilled. Knowledge is an important resource, and people who know about automobile transmissions may not need the money that someone with less knowledge requires to get the transmission fixed. Being healthy is an obvious advantage in coping with stressors; healthy people have more energy and are able to endure the physical demands imposed by the stress response.

A sense of being in control is also important in resilience and coping. People who believe that they can control important factors in their lives have an internal (rather than an external) locus of control. People who have an internal locus of control have advantages over those who have an external locus of control, and coping with stress is one of those advantages. People who believe that they can exert control over important events and conditions in their lives are at advantage, even if the things they control are minor and even if the control is only an illusion and not real.

Feeling in control is a positive state of mind that leads to optimism, which has a positive relation to health. Even more interesting, the feeling of being in control does not have to be reality based to be effective; even the illusion of control can exert a positive effect on mental and physical health (Anene, 1997). When people feel in control of their health and factors that relate to their health, they adopt more healthy behaviors, maintain better social relationships, and possibly have healthier immune systems. The personal belief in control, even if it is not entirely reality based, is healthy when this belief prompts to behave in healthy- promoting ways (Pearlin, 2003).

Effective Coping Strategies

One effective way of dealing with stress is to remove or to reduce the source of stress from our lives. If an employee holds a job that is stressful, discussions could be held with the employer that might lead to a reduction in the pressure of the job, or the employee could resign. If the stress stems from an unhappy marriage, either marriage counseling could be sought or the

marriage could be ended. In a variety of ways, effective coping with stress can take the form of reducing it. For example, Taylor (1999) randomly assigned college students to two groups at the beginning of the term. One group was asked to imagine themselves beaming with success when they received high marks in the class. The second group was asked to think of practical steps they could take to avoid failure and get a good grade (getting the book, reading assignments, studying in advance, and so on). They actually studied more and received higher grades, and as a result of reducing the stressful threat of failure, felt less anxious.

Our cognitions are intimately linked to our reactions to stressful events and a number of effective methods of coping involve cognitive strategies. Three effective cognitive coping strategies involve changing how we think about the stressful event, focusing attention away from stressful events that cannot be changed, and religious coping.

Reappraisal can be an effective method of coping. This refers to changing how we think about – or interpret – the stressful events that push and shove our lives. For example, I know a musician who had a successful first record, but his second album was a flop – the critics panned it and the public didn't buy it. At first, he saw this as a sign that the first record was a fluke and that he had no real talent. As a result, the failure of the second album was a huge stress. However, a veteran musician convinced him that having an unsuccessful second album is a common "sophomore slump" among musicians who go on to be very successful. This conversation changed his interpretation of his unsuccessful album and allowed him to view it as a challenge to do better next time. Finding an interpretation that is realistic and constructive minimizes the stressfulness of negative events (Van Praag, 2004.)

In some cases, stressful events cannot be changed and reappraising their meaning is of limited help. For example, losing a spouse to death must be coped with in some other way.

Focusing attention away from the death and moving on with life is associated with less depression and better physical health (Masten, 2007).

Many individuals cope effectively by interpreting events in terms of their religious beliefs (Sun, 2005). For example, a study of Latinos with arthritis found that individuals who viewed their painful condition as being *en las manos de Dios* (in God's hands) experienced greater psychological well-being than did individuals who engaged in less religious coping.

When the source of stress cannot realistically be removed or changed, another effective option is to manage our psychological and physiological reactions to the stress. For example, an individual may decide to start a new business, knowing full well that the first year or two will be hectic. She would be unwilling, then to remove the source of the stress (the new business) but could learn to control her reactions to the stress. One strategy might be to schedule as much time as possible for relaxing activities, such as aerobic exercise, hobbies, or time with friends. Another would be to seek special training from a psychologist in controlling the body reactions to stress by learning to deeply relax the large body muscles (relaxation training).

Happily, psychological counseling that encourages all three methods of effective coping has even been successful in changing the Type A behavior pattern. Indeed, treated patients showed a 50% reduction in heart attacks and deaths compared with Type A individuals who did not receive treatment (Sun, 2005).

Ineffective Coping Strategies

Unfortunately, many of our efforts to cope with stress are ineffective. They may provide temporary relief from the discomfort produced by stress but do little to provide a long-term solution and may even make matters worse. Three common, but ineffective, coping strategies are as follows:

First, sometimes we deal with stress by withdrawing from it. Many students encounter courses in college that are far more difficult than anything they had experienced in high school. Attempting to study difficult material can be highly stressful, and that stress can lead to a withdrawal from studying – by playing electronic games, talking on the telephone, partying, and the like. Similarly, a husband may ineffectively cope with the stress of an unhappy marriage by withdrawing to the refuge of a bar every day after work.

Note that it is not what you do, but how and why you do it, that makes a coping strategy effective or ineffective. Spending your time playing electronic video games actually may be an effective coping strategy if you only do it for reasonable periods of time to relax. It becomes withdrawal if you use it excessively as a way to avoid the necessity for more effective coping (studying).

In this context, it is also important to recognize that there is a big difference between actually removing a source of stress and withdrawing from it. If you find that you have signed up for an extremely difficult course for which you are not prepared, dropping that class until you are ready to take it would be an effective way to remove the stress. However, simply not studying for the tests in that course because you have withdrawn to the refuge of long philosophical discussions with friends would obviously be an ineffective solution.

Second, a common reaction to frustration and other stressful situations is aggression. The woman who has tried unsuccessfully to create romantic interest in a man may suddenly become hostile toward him. The man who cannot get a screw to fit into a curtain rod may throw a temper tantrum and hurl the rod to the floor in disgust.

Thirdly, it appears that many individuals cope ineffectively with stress by using tobacco, alcohol, and other drugs to soothe their emotional reactions to stress. For example, a study in which participants' emotions were measured daily showed that higher levels of

anxiety during the day increased the likelihood of drinking alcohol later that day (Heath, 2008). Although alcohol temporarily reduces anxiety for some people, it does nothing to remove the source of stress and often creates additional problems in relationships, studying, job performance, and health that make things worse in the long run. Self-medication with alcohol or street drugs is a very poor method of coping indeed. It does seem clear, however, that some individuals benefit from professionally prescribed medications that reduce anxiety and depression far more effectively and safely than from alcohol and street drugs.

Primary appraisal of an event as in some way harmful or threatening is really only the beginning of the stress process, not the end. In secondary appraisal, we consider what can be done about the stressful situation, by evaluating our coping options (Lazarus, 2000). Primary appraisal does not necessarily come first. The difference between them is not timing, but content. They are interdependent aspects of a common process. The more confident we are of our capacity to overcome obstacles and dangers, the more likely we are to be challenged rather than threatened and vice versa, a sense of inadequacy promotes threat.

Lazarus (2007) has classified all the coping strategies that a person might use into five general categories:

- Direct action response – the individual tries directly to change or manipulate his/her relationship to the stressful situation, such as escaping from/removing it.
- Information seeking – the individual tries to understand the situation better, and to predict future events that are related to the stressor.
- Inhibition of action – doing nothing; this may be the best course of action if the situation is seen as short term.

- Intrapsychic or palliative coping – the individual reappraises the situation (for example through the use of psychological defense mechanisms) or changes the 'internal environment (through drugs, alcohol, relaxation or mediation).
- Turning to others for help and emotional support.

These five categories of coping overlap with the distinction between problem-focused and emotion-focused coping. In the transactional model, the 'stress response' refers to both psychological and physiological means of coping. In turn, the psychological response has two components, cognitive defense and behavioral response, and the consequences of both (perceived and actual) are continuously being appraised in relation to the stressful situation.

Sometimes the term 'coping response' or mechanism is used in contrast to defence mechanism; the ego defence mechanisms involve some degree of distortion of reality and self-deception. While desirable in the short term, as long-term solutions to stress they are unhealthy and undesirable. Coping mechanisms, by contrast, are conscious attempt to adapt to stress and anxiety in a positive and constructive way. They are thought and behaviors to search for information, problem solving, seeking help from others, recognizing our true feelings and establishing goals and objectives. In effect, coping improves fit (between the individual and the environment), whereas defence maintains misfit while reducing perceived stress (Steptoe, 2001).

Much of what have been said about coping with stress refers to what people do in a largely spontaneous way. In this informal sense we all manage our stress more or less effectively. But, more formally, stress management refers to a range of psychological techniques used in a quite deliberate way, in a professional setting to

help people reduce their stress. These techniques may be used singly or in combinations.

- In the case of biofeedback, the focus is on treating the symptoms of stress rather than the stressor itself.
- The same is true for a number of procedures used to bring about a state of relaxation, in particular progressive muscle relaxation, meditation and hypnosis.

Cognitive restructuring refer to a number of specific methods aimed at trying to change the way individuals think about their life situation and self, in order to change their emotional responses and behavior. The approach is based largely on the work of Beck (the treatment of automatic thoughts) and Ellis (rational emotive therapy), two major forms of cognitive behavior therapy. This approach provides information to reduce uncertainty and to enhance people`s sense of control.

The important conclusion from this and many other studies is that no coping strategy or technique is equally effective in all situations. Instead, effectiveness depends on the characteristics of the situation, the appropriateness of the technique, and the skill with which it is carried out. People are likely to adapt well to the stresses of life if they have mastered a variety of coping techniques and know how and when to apply them most effectively. The importance of controllability in the choice of techniques recalls the wisdom in theologian Reinhold Niebuhr's famous prayer that asks for the courage to change those things that can be changed, the forbearance to accept those that cannot be changed, and the wisdom to discern the difference.

2.2.5 Concept of Academic Achievement

Academic achievement is an accomplishment that has taken place as a result of exposure to a relatively defined learning experience (Halpern, 2000). "Relatively defined learning experience" may be as broad as what was learned from four years of university. The scores reliably show the extent to which students have learnt.

Academic achievement may be put to varied uses. The achievement helps school make decisions about a student's placement in a particular class, acceptance into a program, or advancement to a higher grade level. Cohen and Swerdik (2010) states that student's academic achievement is helpful in determining the quality of instruction in a particular class, school, school district, or state. The American Psychological Association, the American Educational Research Association, and the National Council on Measurement in Education, noted that achievement scores are too limited and unstable to be used as the sole source of information for any major decision about student placement or promotion. Achievement scores should always be used in combination with other sources of information about student achievement when making important decisions about students (National Research Councils, 2001).

Achievement problems can surface when students don't set goals, don't plan how to reach them, and don't adequately monitor their progress toward the goals. They also can arise when students are low achievers and have low expectations for success, try to protect their self-worth by avoiding failure, procrastinate, are perfectionists, become overwhelmed by anxiety, or become uninterested or alienated from school. Many of these obstacles to achievement surface during elementary school and then become more pronounced during middle school or high school (Santrock, 2009).

2.3 Theoretical Framework

The theoretical framework helps to clarify concepts related to the study and related findings of previous studies.

2.3.1 Theories of Stress

Theories of stress include the Systematic Stress Theory, Resource Theories of Stress and Cognitive Theory of Stress. Understanding of these theories increases and reveals a lot of knowledge about stress.

2.3.2 Systematic Stress Theory

Selye's (1999) systematic stress theory postulates that a variety of stimulus events (heat, cold, toxic agent) applied intensely and long enough are capable of producing common effects, meaning not specific to either stimulus event. These non-specifically caused changes constitute the stereotypical, i.e. specific, response pattern of systematic stress. Lazarus (1984) in his psychological theory presented two basic elements that are central to stress.

i. Appraisal which refers to individual's evaluation of the significance of what is happening for their well-being.

ii. Coping which is individual's effort in thought and action to manage specific demands.

Stressor as an environmental stimulus affects students, producing physical arousal and psychological tension and anxiety. Stress results from a cognitive appraisal of situations involving challenges or threats. Looking at this view, not all students view a situation in the same way; a student must appraise a situation as stressful for it to be stressful.

2.3.3 Resource Theories of Stress

Resource theories of stress were basically concerned with resources that preserve well being in the face of stressful encounters such as: social support, sense of coherence, hardiness, self-efficiency or optimism. This theory posits that the body possesses an internal mechanism to maintain stable bodily function or equilibrium. As the environment presents the organism with various challenges, the body must respond to each new situation by adjusting various physiological systems to

compensate for the resources being taxed (Davidyan, 2008; Lazarus, 2007; Selye in Krohne, 2002; Bandura in Krohne, 2002).

When human body first experiences stress, adrenalin takes over and causes a chain reaction within the nervous system. The heart begins to beat faster, the sizes of the blood vessels are changed and the body actually prepares itself for a frightening or eternal event. Chronic stress can be harmful to the brain because of hormones and chemicals referred to as glucocorticoids (GC's). When the body experiences a rush of adrenaline which is accompanied by sty, a portion of our brain called the adrenal cortex begins to releases the GC's which are useful for dealing with the emergency type of stressors.

Chemicals, such as cortisol, hydrocortisone and corticosterone, act together to increase the production of glucose. Constrict blood vessels then help our brain to deal with or regulate stress. The GC's tells our brain to either calm down or to boost its levels of awareness or reaction in order to deal with Issues on ground. They also affect memory functioning. While they help to remind us of frightening or stressful situations so that we can be prepared to manage the immediate circumstances, it is said that they can also be harmful to the neurons of the brain.

It has as well been observed that prolonged stress may lead to damage or death of some neurons especially those that have to do with the memory center of the brain (Edward, 2006). Stress reactions to the body can be identified through pacing and fidgeting, talking too fast and rushing everywhere, hyperventilation, inability to relax, crying, constant fatigue, sleeping problems, loss of effectiveness at work, despair etc. when individuals get stressed, the adrenal glands secretes hormones which prepare the body to fight or escape from danger. There hormones increase the amount of sugar and cholesterol in the blood to provide additional energy. When they are not burnt out in fighting or fleeing, the fats get deposited in the blood vessels, eventually, causing illness (Balarabe, 2003)

2.3.4 Cognitive Theory of Stress

Because cognitive appraisal processes play a central role in generating stress, Masten (2007), Zautra (2003) and other cognitive theorists maintain that the most powerful means of regulating feelings is by controlling how we think about stressful situations and about ourselves. Resick (2005) suggests that a relatively small number of irrational core beliefs lie at the root of most maladaptive negative feelings. for example, we tell ourselves that we must achieve and be approved of in virtually every respect if we are to consider ourselves worthwhile people; that it is terrible, awful and catastrophic when life or other people are not the way that we demand they be; that people who do not behave as we wish are bad and therefore deserving of punishment. In Resisck's terms, these catastrophizing" tendencies, together with other irrational ideas, generate unnecessary anxiety, despair and anger. When people use the technique of cognitive restructuring to systematically detect, challenge and replace these irrational ideas, their feelings can change dramatically, in as the following case: whenever I find myself getting guilty or upset, I immediately tell myself that there must be some silly sentence that I am saying to myself to cause this upset. People learn to talk to themselves and guide their behaviour in ways that help them cope more effectively (Greenberg, 2005) .They prepare different self-instructions to use at four critical stages of the stressful episodes: preparing for the stressor, confronting the stressor, dealing with the feeling of being overwhelmed and appraising coping efforts after the stressful situation.

2.3.5 Theories of Coping

Theories of coping includes; Cognitive Appraisal Theory and Tolerance of Ambiguity Theory. Understanding of these theories reveal a lot of knowledge about coping strategies.

2.3.6 Cognitive Appraisal Theory

Cognitive appraisals are affected not only by an individual's specific perceptions of a situation, but also, inevitably, by certain general belief system (Krohne, 2002). These relate both to the surrounding environment i.e whether it is fundamentally friendly or hostile, as well as the person's place in it i.e whether he is basically a competent individual, or someone who is chronically 'out of his depth'. These sorts of ideas, which tend to operate at an implicit level, can obviously influence whether a given situation is viewed as a negative threat or a positive challenge. This theory posits that, it is entirely possible that two individuals in the same environment and with seemingly equivalent abilities may form quite different perceptions, either of the nature and degree of threat present or of their capacity to respond appropriately. This is even more the case in unfamiliar and ambiguous situations, where concrete information necessarily contributes less to appraisal.

Keil (2004) examines some specific personality traits and belief systems likely to influence cognitive appraisals. One such dimension concerns the extent to which an individual regards control over events to be under his own influence. This variable is known as locus of control. The term 'locus of control' however, refer not to specific situational appraisals, but to a more basic attitude concerning the effects of one's own behavior. In Keil's description, internally controlled individuals are 'cognitively more active' in other words, they are apparently better both at acquiring new information and at applying it effectively. Another variable is the term 'self-efficacy' which refers to the extent to which an individual judges himself able to perform an imminent task. Doubters are said to be more easily deterred, invest less effort, and exhibit less resolve. By the same token, individuals with perceptions of higher self-efficacy are said to enter the task with more resolve, to persist longer, and to invest more resources in success.

It seems sensible to assume that persons who believe that they can master most demands and threats by doing what is needed or by discovering what to do and how to do it are less likely to be threatened or to feel helpless or helpless in stressful transactions (Lazarus & Folkman, 1984).

2.3.7 Tolerance of Ambiguity Theory

For the most part, research on stress and uncertainty has focused on situational variables, that is, on the degrees and types of ambiguity possible; these include, for example, the question of whether an event will happen, when it will happen, what actions are possible, and so forth. However, a few investigators have also looked at the possible human variables and their effects, reasoning that there are likely to be individual differences in the extent to which uncertainty is found to be actually threatening.

The term tolerance of ambiguity was originally coined by Greenberg (1987) who considered this personality dimension to be "one of the basic variables in both the emotional and cognitive orientation of the person toward life. It has been defined as a willingness to consider multiple aspects of reality and a more flexible adaptation to varying circumstances and degrees of abstraction. Diego (2004) regarded this adaptability as a coping resource, noting that intolerant (or 'close minded') persons tended to resolve ambiguous situations by seeking premature closure, which, refers to the adoption of decisions or courses by action before all of the relevant facts are available. Premature closure probably relates to the hazardous thought pattern termed impulsivity.

There is clear evidence that humans have increased tendency to seek closure under stressful conditions. However, even in the absence of unusual stress, individuals classified as neurotic have shown a significantly greater tendency to avoid ambiguous situations than have normal. The relationship between tolerance of ambiguity and general resistance to stress

remains a promising area for future research. Some specific Issues yet to be clarified include situational factors conducive to increased or decreased tolerance, and the identification of other personality traits associated with tolerance or the lack of it.

2.4 Stress and Academic Achievement

Interest in stress among college students is related to the recognition that excessive stress is harmful to academic performance (Steckler, Kalin & Reul, 2005) and may lead to dropping out. Bolger, Zuckerman and Kessler (2000); Felsten and Wilcox (1992) found that higher levels of stress reduce grade point averages (GPA's) among 146 college men and women and led to increase in psychological and somatic symptomology. Research has demonstrated that high stress can lead to hyper-vigilance, inability to arrive at a solution. In their own words, Steckler, Kalin and Reul (2005) said high levels of stress have negative effects.

Although (Wheatney, 1977; Lazarus, 2000) both hold that stress is a normal fabric of human existence and slat of life, they did not waste time to caution that difficulties do occur when stress becomes excessive and persistent. In other words, stress is capable of having both negative and positive effects on a stimulus. According to Lazarus (2000), cognitive functioning is a type of physiological activity that is disrupted under stress. The disruption is seen in many functioning like thinking, mental images, concentration and memory. He maintained that non-stressful thinking is rational, logical and flexible because people are able to put their thoughts in sequence in order to solve problems and so communicate effectively with others. But under stress, our ability to organize our thoughts in logical and coherent way is impaired; thinking is dominated by worries, anxiety (all stress emotions) and consequences of actions and negative self-evaluation. However, in as much as Major, Spencer, Schmader, Wolfe and Crocker (1998)

view anxiety as a painful uneasiness of mind concerning an anticipated ill, it can also serve as a motivating force in enhancing learning.

In fact, a survey of 1,247 students at a public mid Western University revealed that test was the number one source of stress among the students accounting for 35% of all responses. Archer and Lamnin (1985) found that test grades, competition, time demands, professors and class environment, concern about future career were among major sources of academic stress. According to Rohland, Kruse and Rohrer (2004) who were the first to introduce the conceptualization of anxiety especially, tests anxiety as consisting of two major components such as worry and emotionality, composed the subjective perception of the experience of an internal effective psychological state. Worry seems to refer to a more complex phenomenon that includes cognitive concern about performance consequences of failure, negative self-evaluation of one's ability as compared to others (Wine, 1982; Marsland, Cohen, Rabin & Manuck, 2001; Cohen, Underwood & Gottlieb, 2000; Bandura, 2001).

Buttressing the views above Magol (2008) said that concentration is usually lessened under stress. The individual is distracted by both internal thoughts and external stimuli. He asserted that people under stress or experience stress are often confused and forgetful and that poor concentration impairs the individual's problem solving ability. Below is the experience of a person who lost his house in a flood. "To me it seems like I can remember but three hours later, I don't remember what happened. I go places, I go places, I don't even know where the hell I am at you know, I have to sit down and think "what the hell am I doing down here" (Erikson, 1976).

Morgan, Richard, Weisz and Schopler (2001) explained that stress-induced forgetfulness is probably as a result of impaired ability to transfer information from short to long-term memory. According to him, this transfer requires elaborate rehearsal. Under stress,

the rehearsal process appears to be disrupted, leading to frequent confusion about sequence of events. In conclusion, he said that stress can disrupt a variety of cognitive functions. In other words, problem solving which requires a combination of good concentration, flexible thinking, intact memory and visual image is significantly affected by stress. In fact, Chunn (1994) had it that clinical research psychologists often use impaired problem solving ability as indicators of stress. Speilberger (1982) supported this view when he reported in his finding that anxious and worrisome experiences in particular was found to have debilitating effects on academic achievement of students regardless of their ability.

In his own view, Wine (1982) stated that the cost of stress in terms of human suffering, social occupation and academic impairment is enormous but warned that not all individuals find the same stimuli equally stressful. This is an observation that probably explained why a course assignment might constitute workload (stressor) for one student but to the others, a challenge that must be tackled, Sergerstrom and Miller (2004) described this as a matter of personality and past experiences. Other researches in various countries show that high-test anxious students perform more poorly than those with low-test anxiety (Man and Hosek, 1989). However, although some researchers have found moderate negative correlation between test anxiety, worry, depression and performance e.g. Diego (2004) others have failed to find any relationship (Krohne, 2002). On the basis of a comprehensive review of test anxiety research in West German Schools, Bowler (1982) stated that usually less 10 per cent of the criterion variance is explained by the stress emotions mentioned earlier. Research by Greenberg (1987), Denis (1993), Jegede, Naidoo and Okebukola (1995) established the fact that stress plays a crucial role in the effective students learning process.

Furthermore, it is evident through earlier researches that students with high score on measures of anxiety (a very strong stress emotion) demonstrate a poorer performance on

cognitive laboratory task, intelligence achievement as well as administered class examination (Dettenbacher, 1980; Wine, 1982). Both theory and research suggest that the concept of anxiety refers to predisposition to respond with emotional reactions and self-centered, they say interferes with performance (Folkman & Mostowitxz, 2004); King (2010); Speilberger, 1982; Wine, 1982).

In his own study, Nolen-Hoeksema (2007) found that moderate stress or experience could be beneficial to learning but that high level of it may be incapacitating. Janis (1971) also found that certain stressors negatively affect learning. For example, discrimination, prejudice as well as bureaucracy affect retardation of intelligence functioning and development of self-concept. Individual initiatives and motivations are dampened by the stressors and thereby decrease cognitive functioning, they conclude. In other words, a student whose life ambition is to graduate at the age of twenty-one (21) but for some bureaucratic reasons is not able to graduate even at the age of twenty-six (26) could be said to have been trapped in a tentacle of massive bureaucracy.

Students outside Nigeria find an association between high density and aggression, poor task performance and social withdrawal (Frydenber, 2008). According to him, one does not have to live in an urban skyscraper to experience crowding. Even an overcrowded dormitory, with three students in a room built for two can be stressful, he maintained.

Other stressors like overcrowding and noise have also been found to affect performances. Again, studies in Nigeria revealed that overcrowding classrooms are partly responsible for poor performance of students (Ndu, 1980; Bajah, 1981). Noise on the other hand is a stressor that could emanate from overcrowded environment. It is a type of bio-ecological stressor. Noise produces a stress response in one or more ways. One of such ways is that it disrupts an on-going activity like reading assignments and other activities that require

maximum concentration. In fact, Glass and Singer (1972) said that noise can stimulate what is called sympathetic nervous systems. Prolonged exposure to high noise levels leads to impaired hearing and those under noisy conditions tends to suffer from shorter concentration.

In the researchers review, the above opinion does not explain why some people cannot read without music. The reason was explained by Masten (2006) on the Issue of adaptation to noise by some human beings. In other word, some people have been so exposed to noisy environment for a long time that to them, the effect is no longer there while others cannot just cope with noise. Selye (1976) however, warned that adaptation may have been mistakenly misinterpreted as minimizing the harmful effect of noise. He concluded by saying that while human being can adapt to stresses like noise they ultimately pay the price in biological depletion and eventually breakdown when exposure becomes chronic.

Glass and Singer (1972) mentioned that academic workload and overload, time pressure, over and under stimulation in no small measure kill cognitive functioning in individuals. Overloads as well as workload do not stop in the urban milieu or on the job. It reaches into the classroom as well. They maintained that academic environment is becoming increasingly stressful for students. Students now carry-over courses they have failed in the first academic level to a new level making work cumbersome for some. Apart from that, continuous strike now and then leads to pressure both on staff and students who must cover their syllabus and finish their projects on schedule, giving room for worrying over deadlines. These same students are pressurized by parents to make good honours degree so as to get good jobs. As a result, students are always anxious and tensed up in their bid to meet these expectations. Nolen-Hoeksema (2007) has described this as a major problem in the academic world. He warned that anxiety in students may lead to inaccurately low evaluation of students' scholastic potentials.

Still on stressors and performance, several other studies have revealed that over-crowded classrooms can contribute to poor academic performance of students. With over-crowded lecture rooms, teachers can neither attend to individuals' questions, engage students in practical work nor give and mark assignments on time (Ogunniyi, 1977; Ndu, 1990; Bajah, 1981; Ross, Neibling & Heckert, 1999).

Again, Newman and Newman (1983) noted that rapid pace of daily activities and excessive demand for top performance irrespective of ability are potential sources of stress that could undermine academic attainment. Olivia, Jumenez and Parra (2008) on their list of possible causes of cheating in examination observed that the following reasons were contributory factors:

a. Task too difficult

b. Parents place high premium on marks or grades rather than on understanding

c. Students feel inadequate or insecure in many situations

d. Parents' expectations of students' performance is too high.

There is no wonder that Glover (1982) emphasized that it is better to disregard what the scores produce and observe what the students do or do not do in the classroom. He went further to point out that cognitive development depends on both physical experiences and social interaction. This is to say that the richer, more diversified experiences the students are provided with, the more elaborate their cognitive structure will be.

In his own contribution, Lovallo (2005) remarked that poor academic achievement is not due to inability but rather due to some other psychological problems that block the students. Imagine that you have an important exam coming up in your psychology class. You have waited until two nights before the exam to start studying. When you finally decide to start studying and begin looking for your class notes, you realize that you left them at your

parent's home when you were visiting there last weekend. You go into a panic and finally call your parents, who agree to put them into overnight mail to you so you will have them the next day. You are pretty anxious now and cannot fall asleep for several hours after you go to bed. The next day you are tired from not sleeping well. The class notes arrive, but you have other classes during the day, so you will have to study that night at your apartment. That night, as you are getting ready to study, your roommate reminds you of the party he had planned for this evening, which you have forgotten about. Now you have to go somewhere else to study, an unfamiliar environment such as the library. You rush to the library and settle into a secluded area to study. Although it is quiet in the library, you are so tired and anxious that you cannot seem to concentrate on the material. At midnight, the library closes and you rush back to your apartment.

The party is still going, and it continues until 2:00am. Meanwhile, you are impatiently trying to study in your room but are distracted by the people and the music. Finally, you feel so overloaded you just give up and go to bed after the people leave. But even now you cannot sleep. You are anxious and frustrated and feeling totally unprepared for the important exam you have in the morning. In fact, you see that the exam will be held in just a few hours. Things are out of your control.

Nevertheless, one must not rush into believing that the views so far discussed are final and conclusive after all man is not a passive victim of the unpleasant stressors identified. Lazarus (2000) was quick to add that the experience of stress and stress-related factors can motivate people to reassert control over themselves and their environment. Magol (2008) seemed to support this when he said that stress leads to depression. Worry and most other stressful feelings and emotions may disrupt people's emotional lives but are informative in a way. By attending to these feelings and experiences as they occur, the individual can begin to

identify the sources of stress that provoke them and then take steps to control them. He concluded by saying that recognizing the sources and feelings are first steps in devising methods to deal with them.

Furthermore, Frazier and Schavben (1994) talking about anxiety (strong stress emotion) and behaviour noted that anxiety is an unpleasant complex variable pattern of behaviour, which individuals show when reacting to internal stimuli. They posited that factors that affect anxiety manifestation are sex, environment, personality and others. He further said that students find some difficulties in coping with life situations and these lead them to such behaviours as destructiveness, sexual promiscuity, drunkenness, highway robbery, drug addiction, frustration, aggression and others. This view was also held by Magol (2008) when he said that anxious, frustrated individual is worried, apprehensive, fatigued, worthless and aggressive. He concluded that depression and other undesirable emotions occur after a stressful change in one's life.

Denis (1993) added to the view by saying that because students cannot cope with some stressful experiences, they manifest behaviours such as drunkenness, defiance to constituted law and authority, promiscuous, strikes.

Stress often takes its toll on the ability to perform effectively on a task. For instance, Roy Baumeister's work shows how pressure can interfere with performance. Baumeister's (1984) theory assumes that pressure to perform often makes people self-conscious and that this elevated self-consciousness disrupts their attention. He found support for his theory in a series of lab experiments in which he manipulated the pressure to perform on simple perceptual – motor tasks. He found that many people tend to "choke" under pressure. Pressure-induced performance decrements have also been found in studies of mathematical problem solving and simple sports tasks (Beilock, 2008).

Recent research suggests that Baumeister was on the right track in looking to attention to explain how stress impairs task performance. According to Beilock (2010), choking under pressure tends to occur when worries about performance distract attention from the task at hand and use up one's limited working memory capacity. Consistent with this analysis, a recent study found that chronic stress (preparing for difficult and hugely important medical board exams) undermined participants' performance on a task requiring attention shifts (McEwen, 2005). Moreover, using fMRI scans, the investigators were able to pinpoint diminished activity in the pre-frontal cortex as the underlying basis for subjects' impaired attention control. Fortunately, these effects were short-lived. One month after the medical board exams, when participants' stress levels were back to normal, their attention was unimpaired.

2.5 Coping Strategies and Performance

Considering the important role that appraisal processes play in emotions and stress, we should not be surprised that the ways we think about situations and ourselves are important protective and vulnerability factors. Pearlin (2003) did an intensive study of 200 students who worked in highly stressful environment. She found that some of them responded to their circumstances with psychological distress and physical illness, whereas others continued to function well both physically and psychologically. How did the two groups differ? The answer came in the form of three beliefs that comprised a stress-protective factor that was termed hardiness. The "Three Cs" of hardiness are commitment, control, and challenge.

Hardy students are committed to their studies and their other involvements, and they believe that what they are doing is important. Second, they view themselves as having control over their outcomes, as opposed to feeling powerless to influence events. Finally, they appraise the demands of the situations as challenges, or opportunities, rather than as threats.

As a result, demanding situation is not only become less stressful, but they can actually stimulate higher levels of performance.

Of these three hardiness components, control apparently is the strongest active ingredient in buffering stress (Greenberg, 2005). A 5-years longitudinal study on students showed that women who felt in control of their lives did not show increases in future illness when stress increased, whereas those low in perceived control did.

When confronted by a stressor, one of the most significant appraisals a student makes is whether or not he has sufficient resources to cope with the demands (Keil, 2004). Small wonder, then, that coping self-efficacy – the conviction that we can perform the behaviours necessary to cope successfully – is an important protective factor. Even events that are appraised as extremely demanding may generate little stress if we believe that we have the skills needed to deal with them.

Self-efficacy is always specific to the particular situation: can I handle these demands? Previous successes in similar situations increase efficacy; failures undermine it. Students can also increase efficacy expectancies by observing others cope successfully and through social persuasion and encouragement from others. Teachers who give constant message to their students, "I believe in you. You can do it"; are source of encouragement. Feelings of self-efficacy fortifies students body as well as their mind against stressful events. An intriguing finding is that when students experience an increase in self-efficacy while confronting a stressful situation, their immune system actually begins to function more effectively (Pearlin, 2003).

Our beliefs about how things are likely to turn out also play an important role in stress. Optimists have a rosy view of the future, expecting that in the long run, things will work out well. Pessimists tend to focus on the black cloud surrounding any silver lining. Recent

research by Schwarzer (2000) indicates that optimistic students are at lower risk for anxiety and depression when they confront stressful events. The finding showed that optimists appraised themselves as being less helpless in the face of stress and adjusted better to negative life events than did pessimists. Optimism is also a health protective factor. In a year-long study, optimists had about half as many infectious illnesses and visits to doctors as did pessimists (Zautra, 2003).

2.6 Stress and Gender

Research on gender and stress cannot be described as conclusive yet. Leibenluff (2002) said that stress emotions like depression, anxiety and fear are most prevalent among women. According to him, in 1990, the World Health Organization (WHO) found depression (a major stress emotion) to be the leading cause of disease burden (a composite measure including both illness and death) among women, noting that it affects almost 20 per cent of the female population in the developed world. Epidemiological studies indicate that 12 per cent of U.S women compared to 6 per cent of their men suffered from clinically significant stress symptoms at some time in their lives.

Frazier and Schauben (1994) used the Psychological Distress Inventory to obtain information regarding stress experienced by a group of female college students. The researchers found that female college students experienced stress related to financial problems, test pressure, failing a test, rejection from someone, dissolution of relationships, depression and feelings of low self-esteem. On the contrary, Ross, Neibling, and Heckert (1999), conducted a study on college students of both genders and found a different set of stressors that were

common among all college students; those experiences associated with stress included a change in eating and sleeping habits, new responsibilities, heavier workloads and breaks.

A recent study revealed no differences in the stress that adolescent girls and boys reported that they experience related to school (such as pressure to get good grades), parents (such as fighting with parents), self-related problems (such as not liking one's appearance), leisure (such as not having enough money), and their future (such as being unemployed) (Seiffge-Krencke, Aunola, & Nurmi, 2009). However, girls indicated that they experience more stress in peer relations (such as hardly having any friends).

The big question of course is why such a gender gap. Over the years, various explanations have surfaced to account for the fact that from one study to the next stress symptom is between two and three times more common among women than it is among men (Leibenluff, 2002). Some mental health workers argue that the reason is not far from the fact that women are better trained to recognize their feelings and therefore seek help. Hence, they come to the attention of the health professionals more often than men. Other suggests that operation in form of physical or sexual abuse, harassment or discrimination is to blame (Mathren, 1988), while female reproductive system and their menstrual cycle have also been held responsible for the finding.

A great deal of evidence also indicate that dysfunction in the serotonergic or serotonin – secreting system contributes to such stress emotions as anxiety, depression, irritability, fear and others which have been found to be more common in women than men (Leibenluff, 2002). However, Steiner and his co-workers at Momaster University cited in Leibenluff (2002) suggested that if serotonin mediates between an organism and its environment and if neurotransmitter is regulated differently in men and women, it might explain gender patterns not only in depression but also in a range of psychiatric illnesses. They further stated that

whereas depression and anxiety are more common among women, alcoholism and aggression are also more common among men. That, just as low serotonin level has been implicated in some stress disorders in women, they have also been found in the brain of men with severe forms of alcoholism and aggression.

Such gender difference in the serotonergic system might ensure that females respond to stress with psychiatric disturbances that involve behavioural inhibition, whereas men respond to stress with loss of behavioral control. Steiner went further to suggest that the gender differences in the serotogenic system evolved because child rearing is more successful in species in which aggressive impulses are curtailed in females. On the other hand, a researcher espousing either the sociological or psychological explanation of stress emotions gender bias might counter Steiner's theory by arguing that men are socialized to respond to stress with "acting out" behaviours such as alcoholism or aggression. In contrast, society teaches women to respond to stress with acting in behavoiurs such as anxiety, depression. To support this, reference could be made to the studies done in Amish and Jewish population where alcoholism is less common but interestingly the rates of depression and other related emotions are as high in men as in women (Leibenluff, 2002).

In his own study, Daryne (2004) stated that causes of female and male stress emotions might be different from each other. It is not known for sure if stress affects men and women differently. He said that the two genders often operate different social contexts; both tend to develop emotional dispositions and personality traits. Accordingly, their responses and coping mechanisms to stress situation vary.

A new study shows that women may not deal with stress as men (Redford, 1998). He said that initially women have the same response to stress as men leaving them somewhat vulnerable to cortisol and adrenalin. But then women also began secreting oxytocin from

pituitary gland which helps scale back the production of control and adrenalin thereby minimizing their harmful effects. He further said that men also secret oxytocin when under stress but they produce it in lesser amounts than women.

Daryne (2004) maintains that today women have a lot of balancing to do between home and workplace, including balancing between social and personal requirements. The Issue and even the thought of menopause, motherhood, and gender roles, family and social support often blight women's live in the long run.

There is a strong relationship between social and mental stress and trauma in women. This according to him relates to women's help – seeking attitude, social network. Besides these factors adapting to a new workplace culture and reformation trends in the job sector affects men and women alike. Men and women different reactions to stress and stressors might be more than just an interesting observation. It could account for differences in their longevity and health.

On the other hand, much of the causes of male depression and stress arise from their self-nurtured identities especially related to their professional status. Suppressing feelings and internalizing stress are acquired male traits (Long, Seburn, Averill & More, 2003). According to him, on some inner level, it comes down to. "If I can't tough it, then I am not much of man". Simply put male ego.

Women are more likely than men are to experience lasting reactions to traumatic events. That is, they are more likely to experience anxiety, depression, and sleep disturbances after a trauma (Fullerton, Ursano & Kao, 2001; Tolin & Fao, 2006). This partly reflects a greater likelihood of women being traumatized by spouse abuse, rape, and other highly stressful events, but it also reflects a gender difference in response to even the kinds of traumatic events experienced by both sexes (Tolin & Fao, 2006). For example, a study of

women and men who had survived serious automobile accidents found that both women and men were affected by the trauma afterward, but women were more distressed emotionally and experienced more sleep problems than men did (Fullerton, Ursano & Kao, 2001). Again however, we are only speaking of average differences. Many women are resilient in their response to traumatic stress and many men are seriously affected by trauma.

2.7 Gender and Coping Strategies

Many factors, including gender roles and culture, influence our tendency to favour one coping strategy over another. Although men and women both use problem-focused coping, men are more likely to use it as the first strategy when they confront a stressor (Ptacek et al., 2001). Women who tend to have larger support networks and higher needs for affiliation than men, are more likely than men to seek social supports (Schwarzer, 2000). Women also are somewhat more likely to use emotion-focused coping (Pearlin, 2003)

This general pattern of coping preferences is consistent with the socialization that boys and girls traditionally experience. In most cultures, boys are pushed to be more independent, as assertive and self-sufficient, whereas girls are expected to be more emotionally expressive, supportive and dependent. In the words of stress researcher, Shelley Taylor (2006_a) the common male response is "fight or flight", whereas women are more likely than men to "tend and befriend". Tending involves nurturing activities designed to protect the self, offspring and significant others. These behaviours promote safety and reduce distress. Befriending is the creation and maintenance of social networks that may aid in this process. Taylor (2006_b) speculates that the tend-and-befriend pattern is a product of biological mechanisms that underlie attachment and care giving behavioural tendencies in women. The female hormone

oxytocin, acting in conjunction with female reproductive hormones and endorphin mechanisms, may be a key player in this biological system.

Gender may also play a role in responses to stress. In a review of two hundred studies of stress responses and coping methods, Taylor (2006) found that male under stress tended to get angry, avoid stressors, or both, whereas females were more likely to help others and to make use of their social support networks. Further, in the face of equally intense stressors, men's physiological responses, including changes in heart rate and blood pressure, tend to be more intense than women's (Resick, 2005). This is not true in every case, of course, but why should a significant difference show up at all? The gender-role learning discussed in the chapter on human development surely plays a part (Keil, 2004). But Taylor also proposes that women's "tend-and-befriend" style differs from the "fight-or-flight" pattern so often seen in men because of gender differences in how hormones combine under stress. Consider oxytocin (pronounced "ox-see-toe-sin), a hormone released in both sexes as part of the general adaptation syndrome (Taylor, 2006). Oxytocin may interact differently with male and female sex hormones, producing a greater stress reduction effect in women than in men. These differences could lead to the more intense emotional and behavioral stress responses often seen among men, responses that may be partly responsible for their greater vulnerability to heart disease and other stress-related illnesses. If that is the case, gender differences in stress responses may help to explain why women live an average of 5.3 years longer than men.

The role of gender-related hormones in stress responding is supported by the fact that there are few, if any, gender differences in children's stress responses. Those differences begin to appear only around adolescence, when sex hormone differences become pronounced.

2.8 Review of Empirical Studies

Students' performances in almost all level of learning often have some psychological bearing in their well-being. Naturally, individuals have high crave for success and most often, various explanations are offered in a bid to explain reasons for success or failure in academic situation. In some instances students often relate their success or failure to environmental factors or some other variables, thus, such explanations are being associated to oneself or some external factors.

Within the framework of stress, studies have been conducted to examine the extent to which these variables affect the academic achievement of student. Individuals were given opportunities to express themselves freely as to how they feel when faced with these situations, and the coping strategies they adopt.

Murff (2005) carried out a study on the impact of stress on academic success in college students of Grambling State University. Each student participated in a 45minutes seminar on stress management. The objectives for the stress management seminar were to assist students in identification of personality styles and patterns of behavior, provide general information on stress and to identify signs of stress. In addition, the seminar participants were taught specific stress reduction techniques. The results of the study suggested that stress management seminars that provide general information on stress and teach effective ways to reduce stress are beneficial in strengthening a person's coping skills. Consequently, if coping skills are effective in decreasing stress students have a greater chance for academic success.

In another dimension, Balarabe (2008) conducted a study on relationships of positive coping strategy with stress among university medical students. The measures of positive coping involved the effective use of both problem-focused and Emotion-focused strategies by the students in their day to day stress management. The findings reveal that students who used positive coping strategies experienced significantly less relationships in social stress, academic

stress, and distress compared to those who did not use much of the positive coping strategy. In line with these finding and other findings which show that the effective use of coping strategies helped to keep stress level within tolerable limits. Balarabe (2008) further recommended that newly admitted students to university should be trained in the effective use of positive coping strategies in the management of stress in their daily lives. This should be part of a broad psychological counseling programme aimed at helping stress and distress prone students.

There is truth to the popular wisdom that when we are stressed out and upset, it's good to talk with someone about it. Pennebaker (1995-1997) conducted several studies in which college students talked about past traumas to an experiment in adjoining room or they tape-recorded or wrote about the experiences. Many tearfully recounted incidents of personal failure, family tragedies, shattered relationships, sexual or physical abuse, and traumatic accidents. Participants in a control group were asked to talk or write about trivial everyday matters. A comparison of blood samples taken from the students before and after their sessions indicated enhanced immune system functioning in those who had purged themselves of negative emotions but not in those who had not. Moreover, the students who had disclosed the traumatic incident had 50 percent fewer visits to the campus health center over the next six months compared with the control group.

In another study, Sloan and Max (2004) used the written-disclosure procedure with college students who had reported experiencing a traumatic event in their lives. The students completed measures of stress symptoms, depression, and number of days they had been sick since the beginning of the school term. In an experimental condition, participants were then asked to write about the traumatic events, whereas the control condition did an unrelated task. Physiological arousal was recorded as the participants performed the tasks.

One month later, the students again completed the measures of psychological symptoms and sick days. The students had not differed on any of these measures at baseline, but they differed strongly afterwards. Those who had written about their traumas showed lowered stress and depression scores. They also reported fewer sick days at the follow-up. The more physiologically aroused the participants in the written-disclosure group became while they wrote about their traumatic events, the healthier they looked physically and psychologically a month later. The researchers concluded that writing or talking about traumatic events affords exposure to the situational cues that accompanied the trauma and now function as conditioned stimuli that trigger distress. Exposure allows extinction to occur, thus reducing the stimuli's emotional impact.

Studies by Janice Kiecolt-Glaser and her colleagues have related stress to suppressed immune activity in humans (Kiecolt Glaser & Glaser, 1995). In one study, medical students provided researchers with blood samples so that their immune response could be assessed. The students provided the baseline sample a month before final examinations, then contributed the "high-stress" sample on the first day of their finals the subjects also responded to the SRRS as a measure of recent stress. What were the results? Reduced levels of immune activity were found during the extremely stressful final week. Reduced immune activity was also correlated with higher scores on the SRRS. In another study, investigators exposed quarantined volunteers to respiratory viruses that causes the common cold and found that those under high stress were more likely to be infected by the viruses (Cohen, Tyrell & Smith, 1993).

In one study, Linden, Lenz and Con (2001) carried out a research on stress management programs. The researchers randomly assigned men and women with hypertension (blood pressure greater than 140/90) to one of three groups. One group received 10 hours of individual stress management training; a second group was placed in a wait-list control group and

eventually received stress management training; a third group (a control group) received no such training. The two groups that received the stress management training showed significantly reduced blood pressure. The control group experienced no reduction in blood pressure. Also, the reduced blood pressure in the first two groups was linked to a reported decrease in psychological stress and improved ability to cope with anger.

Umar (2008) conducted a study on the influence of stress anxiety and mental health on effective learning. Learning is a cognitive process and its effectiveness depends largely on different aspects of a child's life-psychological, social, economic, mental etc. (Umar, 2008). One of these is his mental health status, which is a prerequisite for learning to be effective. The study revealed that an anxious learner is unable to make a meaningful and dynamic organization and structuring of experiences through the perpetual field into cognitive structure needed in learning as cognitive processes. The finding also indicated that stress and complex subject matter combine to create a difficult environment in which to teach successfully becomes a major challenge. However, the study further suggested that it is important in teaching and learning that stress be minimized while the development of positive self-concept is maximized for the attainment of educational goals.

Leary and Kowalski (2003) in a study on why people feel anxious in social situations, and why are some people shackled in the prison of their own shyness, answered these questions by applying self-presentation theory. Self-presentation theory assumes that we are eager to present ourselves in ways that make a good impression. The implications for social anxiety are straight forward: we feel anxious when we are motivated to impress other but doubt our ability to do so. Some people, especially those who are shy or easily embarrassed, feel anxious in almost any situation in which they might be evaluated. For these people, anxiety is more a trait than a temporary state. The study also indicated that shy, anxious people also over-

personalize situations, a tendency that breeds anxious concern and, in extreme cases, paranoia. They overestimate the extent to which other people are watching and evaluating them. To reduce stress, some people turn to alcohol. Alcohol lowers anxiety as it reduces self-consciousness. Thus, chronically, self-conscious people are especially likely to drink following a failure. Labeling oneself as anxious, shy, depressed, or under the influence of alcohol can provide an excuse for failure. The study went further to suggest that the natural tendency in all such situations is to be cautiously self-protective: to talk less; to avoid topics that reveal one's ignorance; to be guarded about oneself; to be unassertive, agreeable and smiling.

Charles and Rudolf (1990) studied coping patterns and psychological outcomes in more than 400 California adults over a one-year period. They found that problem-focused coping methods and seeking social support were associated with favourable adjustment to stressors. In contrast, emotion-focused strategies that involved avoiding feelings or taking things out on other people predicted depression and poorer adjustment. Other studies have yielded similar results. In both children and adults, across many different types of stressors, emotion-focused strategies that involve avoidance, denial and wishful thinking seem to be related to less effective adaptation (Aldwin, 1996).

Thomas and Stephen (1988) demonstrated the effectiveness of emotion-focused coping in adapting to a stressful situation with limited personal control. As part of a training program conducted by the Federal Bureau of Investigation, airline employee who might be future victims of hijackings volunteered to participate in an exercise in which they were abducted by FBI agents posing as terrorists and held hostage for 4 days under very realistic and stressful conditions. Before their abduction, the employees were randomly assigned to two experimental conditions and a control condition.

In one condition, employees were trained in problem-focused techniques, on how to interact with captors and maintain a façade of dignity and composure through appearance and behavior. They also learned ways of supporting one another nonverbally and communicating with one another through the use of the prisoner-of-war tap code.

Training for the second experimental group focused on the emotional reactions the hostages would likely experience and techniques they could use to minimize stress responses. These emotion-focused techniques included deep breathing, muscular relaxation, stopping unwanted thought and generating pleasant fantasies. Hostages in the control condition were given no coping skills training,

At various points during their captivity, all of the hostages completed self-report measures of emotional distress and psychiatric symptoms. In addition, the adaptiveness of their behaviour was coded by trained observers. The hostage groups trained in either problem-focused or emotion-focused strategies fared better than the untrained employees on both the self-report and the behavioural measures.

The importance of support received from a spouse in reducing women's negative emotional responses to threat was assessed in a recent study by Coan, Schaefer and Davidson (2006). In this study women were exposed to threatening stimuli (the possibility of receiving an electric shock), while their brain responses were monitored by a brain Scanner (fMRI). Support occurred in the form of having one's hand held during the procedure, a behavior that is used to express soothing and support in both humans and primates under conditions of threat. In one block of trials, the wife held the hand of her spouse. In a second block of trials, an anonymous and unseen male experimental assistant held the woman's hand. In the third block, no one held the woman's hand. At the end of each trial block, the woman rated how unpleasant the situation was and how much fear arousal she was experiencing. As expected, the fMRI

recordings of brain activation yielded dramatic proof that social support, particularly from a spouse, reduces the brain's response to threat. That is, the spouse's hand-holding was associated with the lowest psychological arousal. One other important finding occurred. Despite the fact that all of the couples were in satisfying marriages, the researchers found that even in this restricted marital-satisfaction group, satisfaction scores were significantly correlated with reduced brain activation on the threat trials when the spouse was holding the woman's hand. The relation did not occur when the woman's hand was being held by a stranger. The question of whether the same findings would occur if husbands were being shocked and the wife was doing the hand-holding is as of yet unresolved and awaits further investigation.

In an investigation by Dziegielwski, Turnage, and Roest-Marti (2004), subjects were enrolled in a course of study leading to a degree in social work. The researchers (Dziegielwski et al., 2004) noted that prior to the study, all of the students had a strong belief that stress can negatively affect professional performance and achievement of educational goals. Each student participated in a 45 minute seminar on stress management. The objectives for the stress management seminar were to assist students in identification of personality styles and patterns of behavior, provide general information on stress, and to identify signs of stress. In addition, the seminar participants were taught specific stress reduction techniques. The results of the study suggested that stress management seminars that provide general information on stress, and teach effective ways to reduce stress are beneficial in strengthening a person's coping skills. Consequently, if coping skills are effective in decreasing stress and feelings of anxiety students have a greater chance for academic success (Dziegielwski, et. al., 2004).

2.9 Summary

Literature reviewed in this chapter examined the concepts of stress, concept of coping strategies, concept of academic achievement, also theories on these variables; resource theories of stress, systematic stress theory, cognitive theory of stress on which the study is anchored. Most importantly, causes of stress, effects of stress, and their influence on students' adjustment and academic performance were reviewed. Literatures were reviewed on stress and gender and also various coping strategies were discussed. To give support and throw more light on this chapter, related literature on the topic were reviewed. This becomes necessary because some of the views reviewed were used to support or corroborate the findings of the study. Identifying their implications to learning is a first step to controlling the problem to some extent.

Stress has been viewed by various theorists, as a stimulus; as a response having cognitive, physiological, and behavioral components; and as a person-situation interaction, that is a transaction between the person and the environment. Stressors are events that place physical or psychological demands on organisms. The stressfulness of a situation is defined by the balance between demands and resources. Life events can vary in terms of how positive or negative they are, as well as in predictability, controllability, chronicity, and other dimensions that affect their impact.

However, the outcome of a coping strategy depends on its appropriateness to the situation and the skill with which it is carried out. Stress management can also be accomplished through coping skills training. Stress management training teaches people adaptive coping skills for handling stressful situations. Cognitive restructuring and self-instructional training can be used to develop adaptive cognitive coping responses; somatic relaxation training and meditation can be used to develop greater control of physiological arousal.

From the literature reviewed, no work of this nature has been carried out in Nigeria, Imo and Kaduna in particular. Most of the research works were carried out on the impact of stress on performance, and coping patterns and psychological outcomes. No study has been done on the relationship of stress, coping strategies and academic achievement among university undergraduate students.

Again, positive coping strategy with stress was carried out among medical students. No attention has been paid on looking at Federal and State university students in their stress level. Also no study has been done on university students from different geographical locations on their stress level and coping strategies. It is hoped that the findings of this study would reduce the existing gap between the years of reviewed world and Nigeria in the area of studies. The outcome of this study will reveal some similarities is findings between the western world and Nigeria for the purpose of global generalization.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter covers the research design, population of the study, sample and sampling techniques. Other Issues discussed are research instruments, validity and reliability of research instrument, procedure for data collection, and procedure for data analysis.

3.2 Research Design

The research design for this study is the correlational type of survey. This design focuses on population. It is a method of observing the variables in a large number of subjects by using their reports. The report could be in form of interview or questionnaire. Similarly, this design will aim at accurate assessment of the characteristics of the whole population and also will aim at selecting and studying samples chosen from the population to discover the relative interrelation of sociological and psychological variables. Correlational studies are designed to find statistical connections or correlations between and among variables so that some factors can be used to predict others. Based on correlational evidence, researchers can use one variable to make predictions about another variable. Mohammed (2001) described correlational type of survey approach of research as an effective attempt to picture or document current conditions or attitudes that describe what exists at the moment. The design allows the researcher to study variables as they are without creating artificial situations. When survey design are employed on correlational research, an excellent method of description and prediction is achieved.

3.3 Population of the Study

The population of this study comprised of all 300 level university undergraduate students in the Faculties of Agriculture, Administration and Social Sciences in Federal University of Technology, Owerri and Imo State University, Ahmadu Bello University, Zaria and Kaduna State University, Kaduna. The total population for this study is four thousand five hundred and thirty eight (4,538) including both male and female students.

Table 3.1 Distribution of Population of the study

S/N	University	Agriculture			Administration			Social Sciences		
		Yr 3	M	F	Yr 3	M	F	Yr 3	M	F
1.	FUTO	107	65	42	342	190	152	164	83	81
2.	IMSU	73	43	30	457	230	227	438	237	201
3.	ABU	95	69	26	1057	706	351	773	473	300
4.	KASU	64	39	25	350	199	151	618	326	292

Source: University MIS (2014).

3.4 Sample and Sampling Techniques

Based on Krejcie and Morgan's (1970) table of determining sample from a given population, a random sampling technique was used to select three hundred and thirty seven (337) respondents. This number form the representation of the population obtained from the universities. Random sampling is the most fundamental method of probability method. Its

principle of randomization which is a procedure of giving every subject in the population an equal chance of appearing in the selection was used. The subjects by this method will constitute a good representation of the university students.

The Sample was drawn from all three hundred level students of Agriculture, Administration, and Social Sciences subjects, and based on gender. The selection of sample for the purpose of this study was based on the population of each faculty.

Table 3.2 Distribution of Sample Size for the Study

S/N	University	Agriculture			Administration			Social Sciences		
		Yr 3	M	F	Yr 3	M	F	Yr 3	M	F
1.	FUTO	30	12	18	28	18	20	24	13	11
2.	IMSU	28	15	13	30	14	16	32	18	14
3.	ABU	27	14	13	32	15	17	31	16	15
4.	KASU	23	12	11	26	14	12	26	15	11

3.5 Research Instruments

Three research instruments were used for the study. They are as follows: Students Stress Questionnaire (SSQ), Students Coping Strategy Questionnaire (SCSQ) and Students Academic Performance Score (SAPS). Students' Stress Questionnaire and Students' Coping Strategy Questionnaire were structured along the Likert-type scale system. All items contained

in the questionnaire were scored in four point scales of Strongly Agreed, Agreed, Disagreed, and Strongly Disagreed.

3.5.1 Students Stress Questionnaire (SSQ)

The aim of this Questionnaire is to elicit information about students stress signs or symptoms. It is divided into two sections with twenty five (25) items each. The first section deals with Physical Stress which includes Meals, Clothing, Accommodation/Facilities, Health, Recreation/Relaxation stress. The second section is Psychological Stress and includes Security, Social Relationships stress, Academic Stress, Future Concern/Career Stress and Stress/Distress Symptoms. The questionnaires were developed by Balarabe (2007). The aim was to determine how these stressors influence students' academic performance. The details are in appendix III.

3.5.2 Students Coping Strategy Questionnaire (SCSQ)

Students Stress Coping Strategy Questionnaire constitute items the researcher used to elicit information on strategies the students use to cope with stress. It is made up of twenty five (25) items. The questionnaire was designed by Balarabe (2007). The details are in appendix IV

3.5.3 Students Academic Performance Scores (SAPS)

Students Academic Performance Scores was collected from the departments that were used for this study. With the help of lecturers in these selected departments, it was easy to cross check the Cumulative Grade Point Average.

3.6 Validity of Research Instruments

The research instruments were given to the supervisory team, other lecturers in Educational Psychology and Counseling Department in Ahmadu Bello University, Zaria. They were requested by the researcher to validate the items in the research instruments. The face validation of the instruments for this study were assessed by three experts in the Department,

and the research supervisors for this study. The instruments along with chapters one to three were given to the three experts and research supervisors for content and construct validation.

3.7 Reliability of Research Instruments

Reliability estimates for the different subscales were established by Balarabe (2007) who reported the standardized reliability coefficients using Cronbach alpha for internal consistency, which are presented as Physical Stress .64, Relationship Stress .83, Academic Stress .86, Future/Career Stress.59, Stress/Distress symptoms .72, and Coping .89.

3.8 Procedure for Data Collection

The researcher collected a letter of introduction from the Head, Department of Educational Psychology and Counseling, Ahmadu Bello University, Zaria. The letter was presented to heads of the selected departments who looked at it and asked the researcher to come back after two weeks. The researcher requested for research assistants who are lecturers in the selected faculties.

At the time of administration of the questionnaire, the researcher interacted with the research assistants who help in organizing the students. The copies of the questionnaires were administered, supervised and collected back by the researcher and research assistants. The students' performance scores were collected from various Examination and Records Units within the sampled faculties.

3.9 Procedure for Data Analysis

This study made use of a number of statistical procedures for data analysis and interpretation. The descriptive and inferential statistics of Mean ($\overline{x}$) and Standard Deviation (SD) was used. The Pearson Product Moment Correlation Coefficient (r) was used in the test of hypotheses 1, 2, 3 and 4 because they involve relationship between variables. This is because

the data meets the requirements for this statistical method in testing relationship (Steel and Torrie, 1980). This procedure measured the amount and significance of a correlation between two variables. The data was measured in an interval scale and thus justify the use of this method. Hypotheses 5, 6 and 7 were analyzed using the t-test analysis. All the hypotheses were tested at .05 level of significance.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis including its discussion of results. The main aim and purpose of the study is to determine the relationships among stress, coping strategies and academic achievement of university undergraduate students in Imo and Kaduna states, Nigeria. The SPSS statistical package 20th Edition has been used for the analysis. The first section presents the distribution of respondents by their bio data variables in frequencies and percentages. The second section presents and interpret the null research hypotheses by means of inferential statistical techniques of Pearson Product Moment Correlations (r) to test the first four hypotheses and the Independent t test statistics to test hypothesis five, six and seven. All hypotheses are tested at 0.05 alpha level of significance. Major findings of the analysis and discussion conclude the chapter.

4.2 Biodata Analysis Presentation

This section presents the analysis of demographic variables

Table 4.2.1: **Distribution of respondents by School**

	Frequency	Percent
ABU	84	26.4
FUTO	79	24.8
IMSU	85	26.7
KASU	70	22.0

Total	318	100.0

According to the above, 84 or 26.4% are from ABU Zaria while 79 or 24.8% students are from FUTO as against 85 or 26.7% are IMSU students and the rest 70 or 22.0% are from KASU Kaduna.

Table 4.2.2. Distribution of Respondents by Gender

Gender	Frequency	Percent
Male	153	48.1
Female	165	51.9
Total	318	100.0

On gender basis, a total of 153 or 48.1% are males and the rest 165 representing 51.9% are female students.

Table 4.2.3. Distribution of Respondents by University Status

Types	Frequency	Percent
Federal	163	51.3
State	155	48.7
Total	318	100.0

The table above showed that a total of 163 representing 51.3% are from Federal Owned institutions and the remaining 155 representing 48.7% are from state Owned institutions.

Table 4.2.4. Distribution of Respondents by Location

Location	Frequency	Percent
Imo	164	51.6
Kaduna	154	48.4
Total	318	100.0

On the location of the institutions, a total of 164 representing 51.6% are located in Imo state while the remaining 154 representing 48.4% are from Kaduna state.

4.3 Hypotheses Testing

This section present the results of the null hypotheses raised in chapter one of this work, the results of the tests are summarized below:

Research Hypothesis 1: This null hypothesis states that there is no significant relationship between Stress and Academic Achievement of students in Imo state.

Table 4.3:1: Pearson Product Moment Correlation (r) statistics on the relationship between Stress and Academic Achievement of students in Imo state

Variables	N	Mean	S.D	Correlation Index r	p
Stress	164	138.8720	6.10657		
				-0.850**	0.000
Academic Achievement	164	2.4451	.58878		

*** Correlation is significant at the 0.01 level (2-tailed).

An understanding of the above Pearson Product Moment Correlation statistics revealed that significant negative relationship exists between Stress and Academic Achievement of students in Imo State. This is because the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of -0.850 at df of 162. This shows that the Academic Achievement of students is inversely affected by their stress level. The higher their stress, the lower their academic achievement, and the lower their stress the higher their academic achievement. Thus, the null hypothesis which states that there is no significant relationship between Stress and Academic Achievement of students in Imo state is hereby rejected

Research Hypothesis 2: This null hypothesis states that there is no significant relationship between Stress and Academic Achievement of students in Kaduna State.

Table 4.3.2: Pearson Product Moment Correlation (r) statistics on the relationship between Stress and Academic Achievement of students in Kaduna state

Variables	N	Mean	S.D	Correlation Index r	p

Stress	154	138.5779	5.75511		
				-0.785**	0.000
Academic Achievement	154	2.5286	.60593		

*** Correlation is significant at the 0.01 level (2-tailed).

An understanding of the above Pearson Product Moment Correlation statistics revealed that significant negative relationship exists between Stress and Academic Achievement of students in Kaduna state. This is because the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of -0.785 at df of 152. This shows that the Academic Achievement of students is inversely related to their stress level. The higher their stress, the lower their academic achievement, and the lower their stress the higher their academic achievement. Thus, the null hypothesis which states that there is no significant relationship between Stress and Academic Achievement of students in Kaduna state is hereby rejected.

Research Hypothesis 3: This null hypothesis states that there is no significant relationship between Coping strategies and Academic Achievement of students in Imo state.

Table 4.3.3: Pearson Product Moment Correlation (r) statistics on the relationship between Coping strategies and Academic Achievement of students in Imo State

Variables	**N**	**Mean**	**S.D**	**Correlation Index r**	**p**
Coping Strategy	164	63.7012	2.6099		
				-0.951**	0.000
Academic Achievement	164	2.3726	.26314		

*** Correlation is significant at the 0.01 level (2-tailed).

An understanding of the above Pearson Product Moment Correlation statistics revealed that significant negative relationship exists between Coping strategy and Academic Achievement of students in Imo state. This is because the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of 0.951 at df of 162. This shows that the Academic Achievement of students is proportionally related to their coping strategy level. Students use more of the unfavourable and maladaptive coping strategies which in turn lower their academic achievement. Thus, the null hypothesis which states that there is no significant relationship between coping strategy and academic achievement of students in Imo state is hereby rejected.

Research Hypothesis 4: This null hypothesis state that there is no significant relationship between Coping strategies and Academic Achievement of students in Kaduna State.

Table 4.3:4: Pearson Product Moment Correlation (r) statistics on the relationship between Coping strategies and Academic Achievement of students in Kaduna State

Variables	N	Mean	S.D	Correlation Index r	p
Coping Strategy	154	63.8377	2.47727		
				0.893**	0.000
Academic Achievement	154	2.3805	.25923		

**** Correlation is significant at the 0.01 level (2-tailed).**

An understanding of the above Pearson Product Moment Correlation statistics revealed that significant negative relationship exists between Coping strategy and Academic Achievement of students in Kaduna state. . This is because the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of 0.893 at df of 152. This shows that the Academic Achievement of students is proportionally related to their coping strategy. Students use

more of the unfavourable and maladaptive coping strategies which in turn lower their academic achievement. Thus, the null hypothesis which states that there is no significant relationship between Coping strategy and Academic achievement of students in Kaduna State is hereby rejected.

Research Hypothesis 5: The null hypothesis states that there is no significant difference between Imo and Kaduna State students in the area of stress.

Table 4.3.5: Independent t test statistics on the difference between Imo and Kaduna State Students in the area of stress

Variable	Location	N	Mean	Std. dev.	df	t-cal	P
Stress	Imo	164	139.8521	6.12201			
					316	0.710	0.462
	Kaduna	154	139.372	5.64396			

Calculated t > 1.96, calculated p < 0.05

Results of the independent t-test statistics above shows that there is no significant difference between Imo and Kaduna State students in the area of stress. Reason being that the calculated p value of 0.462 is higher than the 0.05 alpha level of significance while t-calculated value of 0.710 is lower than the t-critical value of 1.96, at df 316. The calculated mean stress are 139.852 and 139.372 by Imo and Kaduna State Students respectively. This shows that the difference between Imo and Kaduna State Students in the area of stress is not significant. Consequently, the null hypothesis which states that there is no significant difference between Imo and Kaduna State Students in the area of stress is hereby accepted and retained.

Research Hypothesis 6: The null hypothesis states that there is no significant differences between Federal and State owned University students in the area of stress.

Table 4.3.6: Independent t test statistics on the differences between Federal and State owned University students in the area of stress

Variable	Type of University	N	Mean	Std. dev.	df	t-cal	P
Stress	Federal	163	138.9632	6.11201			
					316	0.720	0.472
	State	155	138.4839	5.74496			

Calculated t< 1.96, calculated p > 0.05

Results of the independent t-test statistics showed that there is no significant differences between Federal and State owned University students in the area of stress. Reason being that the calculated p value of 0.472 is higher than the 0.05 alpha level of significance while the t-calculated value of 0.720 is lower than the t-critical value of 1.96, at df 316. Their calculated mean stress were 138.963 and 138.483 by students of Federal and State owned institutions respectively. This shows that among students their mean stress is not significantly different on the basis of their type of institutions. Consequently the null hypothesis which states that there is no significant differences between Federal and State owned University students in the area of stress is hereby accepted and retained.

Research Hypothesis 7: The null hypothesis states that there is no significant differences between Male and Female students in their Coping Strategy.

Table 4.3.7: Independent t test statistics on the differences between Male and Female students in their Coping Strategy

Variable	Location	N	Mean	Std. dev.	df	t-cal	P
Coping Strategy	Male	153	64.5882	2.08860			
					316	0.5823	0.000

Female	165	63.0061	2.69258

Calculated t > 1.96, calculated p < 0.05

Results of the independent t-test statistics showed that significant differences exists between Male and Female students in their Coping Strategy. Reason being that the calculated p value of 0.000 is lower than the 0.05 alpha level of significance while the t-calculated value of 5.823 is higher than the t-critical value of 1.96, at df 316. Their calculated mean Coping strategy were 64.5882 and 63.0061 by Male and Female students respectively, with a mean coping strategy differences of 1.58217.

This shows that among students their mean coping strategy is significantly different on the basis of their gender status as the male students use more of problem-focused and escape-avoidance than their female counterparts. Consequently the null hypothesis which states that there is no significant mean coping strategy between Male and Female students, is hereby rejected.

4.4 Summary of Findings

The following are the summaries of the major findings of the study:

1. Significant negative relationship exists between Stress and Academic Achievement of students in Imo State with (r = -0.850, p=0.000). The higher their stress, the lower their academic achievement, and the lower their stress the higher their academic achievement.
2. Significant negative relationship exists between Stress and Academic Achievement of students in Kaduna State with (r= -0.785, p=0.000). The higher their stress, the lower their academic achievement, and the lower their stress the higher their academic achievement.

3. Significant negative relationship exists between Coping strategy and Academic Achievement of students in Imo State with (r= -0.951, p=0.000). The type of coping strategies students use determine their academic achievement. It can be concluded that students used more of ineffective coping strategies, thus lowering their academic achievement.
4. Significant negative relationship exists between Coping strategy and Academic Achievement of students in Kaduna State with (r= -0.893, p=0.000). The more ineffective coping strategies students use, the lower their academic achievement.
5. The study reveals no significant difference between Imo and Kaduna State Students in the area of stress with (t=0.710,p=0.462). Their calculated mean stress levels were 139.8521 and 139.3728 by students of Imo and Kaduna States respectively.
6. There is no significant differences between Federal and State owned University Students in the area of stress with (t=0.720, p=0.472). Their calculated mean stress levels were138.963 and 138.483 by students of Federal and State owned institutions respectively.
7. Significant differences exists between Male and Female University students in their Coping Strategy with (t=5.823, p=0.000). Their calculated mean Coping strategy were 64.5882 and 63.0061 by Male and Female students respectively, with a mean coping strategy differences of 1.58217.

4.5 Discussion of Findings

The findings have confirmed all the assumption made in this study. Answers to all formulated research questions and hypotheses raised have been clarified by the present study. The findings of the present study are discussed in the following manner. From the analysis of the data in table 4.3.1 and 4.3.2 it was found that, significant negative relationship exist between stress and academic achievement of students in Imo State (r= -0.850,p=0.00). Also a significant relationship exist between stress and academic achievement of students in Kaduna State (r= -0.785,p=0.000). This shows that the academic achievement of students is inversely affected by their stress experiences. The higher the stress, the lower the academic achievement. These findings corroborate the study of Balarabe (2008) who found that excessive stress is harmful to academic performance and may lead to dropping out. Wilcox (1992) found that higher levels of stress reduce grade point averages (GPA) which led to increase in psychological and somatic symptomology. This finding demonstrated that stress can lead to hyper-vigilance, inability to arrive at a solution. Under stress, our ability to organize our thoughts in logical and coherent way is impaired (Umar, 2008).

The finding of the present study is also in accordance with the study of Magol (2008), who said that concentration is usually lessened under stress. The individual is distracted by both internal thoughts and external stimuli. He asserted that students under stress or experience stress are often confused and forgetful and that poor concentration impairs the individual's problem - solving ability. Study of Morgan, Richard, Weisz and Schopler (2001) explained that stress-induced forgetfulness is probably as a result of impaired ability to transfer information from short to long-term memory. The transfer requires elaborate rehearsal but under stress, the rehearsal process appears to be disrupted, leading to frequent confusion. This confirmed that stress disrupts cognitive functioning as the case of the present study.

Furthermore, the present study revealed that physical stress affects the academic performance of students. This finding is in line with Sergerstrom and Miller (2004) who found that

academic workload and time pressure in no small measure kill cognitive functioning in students. He maintained that academic environment is becoming increasingly stressful for students. Students now carry-over courses they have failed in the first academic level to a new level making work cumbersome for some. Apart from that, continuous strike now and then leads to pressure both on staff and students who must cover syllabus and finish their projects on schedule; giving room for worrying over deadlines. These are levels of stress that lower academic performance of students. The same students are pressurized by parents to make good honours degree so as to get good jobs. As a result, students are always anxious and tensed up in their bid to meet these expectations. Nolen-Hoeksema (2007) has described this as a major problem in academic performance.

However, an additional result yielded by the analysis of the data of the present study indicated significant relationship between physical stress and academic achievement. Accommodation and facilities are partly responsible for poor performance of students. This finding is supported by the study of Ndu (1990) who also found that overcrowded classrooms contribute to poor academic performance of students. Even an overcrowded dormitory, with five to six students in a room built for two can be stressful, he maintained. Such students cannot have enough sleep because of noise. Ross, Neibling and Heckert (1999) asserted that noise is a stressor that emanate from over-crowded environment. It is a bio-ecological stressor that disrupts reading assignments and other activities that require maximum concentration. The finding of the present study is also in accordance with the study of Keil (2004) who found that research materials are inadequate in some universities, and assessing the internet has posed a big problem. As a result, students are always anxious and tensed up which undermine academic attainment (Lazarus and Folkman, 2007).

Myers (2005) reported that students need supportive homes in order to have a balanced learning opportunity and for them to achieve academic excellence. Romeo and McEwen (2006) opined that the impact of family support on the intellectual development and cognitive styles of

students is high. This result is backed by Santrock (2001) findings that the aspect of academic performance becomes very difficult if students are not provided with love, financial resources, food, and clothing.

Udoh and Ajala (2005) indicated in their finding that where classrooms are characterized as not supportive and friendly, student feel more uncomfortable interacting with one another. They further stated that the nature of social interaction has been found to have a significant relationship with cognitive development. Similarly, Taylor (2006) reported that the nature of social interaction has significant relationship with academic performance. The result of the present study is also in accordance with the above findings.

The present study supports Lovallo (2005) in whose contribution, remarked that poor academic achievement is not due to inability but rather due to some other psychological problems that block the students. He found that if there is an increase in the severity and intensity of the stressors, or hassles and uplifts, a student's academic achievement is significantly affected. In other words, there is often physiological or psychological disequilibrium when the stressors are severe and intense.

Furthermore, the present study found a significant negative relationship between coping strategies and academic achievement of students in Imo State ($r= -0.951$, $p=0.000$). Also a significant negative relationship exist between coping strategies and academic achievement of students in Kaduna State ($r= -0.893$,$p=0.000$). When faced with stress, the thought and behaviour a student uses to handle it matters most. Two individuals in the same environment and with seemingly equivalent abilities may form quite different perceptions, either of the nature and degree of threat present or of their capacity to respond appropriately (Krohne, 2002). The findings of this study revealed that students use withdrawal strategy when faced with a difficult task. This finding is in line with the work of Felman (2009) who found that many students encounter courses in the university that are far more

difficult. Attempting to study the difficult material became highly stressful, and that led to a withdrawal from studying - by playing electronic games, talking on the telephone, partying, and the like. Students used it excessively as a way to avoid studying which led to the low academic performance. However, simply not studying for tests in that course because a student withdrew to the refuge of a long philosophical discussion with friends would obviously be an ineffective solution.

Related to the present study, Heath (2008) study in which participants' emotions were measured daily showed that higher levels of stress increased the use of tobacco, alcohol, and other drugs. Although alcohol temporarily reduces stress for some people, it does nothing to remove the source of stress and often creates additional problems in studying, and academic performance. The finding of this study corroborate the study of Maisamari (2002) who see this defence as psychological maneuvers for coping with both internal and external stressors that threaten the students' academic performance. Denial is a reality coping - distorting defence because it blocks the ability to perceive reality. Schwarzer (2000) study showed that students who were asked to repeat a class keep making plans to move to the next class, instead of facing the reality of the failure and study harder for a good performance. The finding of the present study agrees with the above study. Denying the fact that one is not doing fine has a significant relationship with one's academic achievement. Attitudes to coping strategies are learnt through social interactions and there is a relationship between attitudes to school work and academic performance as indicated by Felman (2009) who reported that positive or negative attitudes are manifested through the level of interest shown in academic work.

However, an additional finding of the present studying is in accordance with Lazarus and Folkman (2007) who stated that emotion-focused coping aims to regulate the experience of distress. They described several forms of emotion-focused coping, including reappraisal, the emotional regulation strategy of reevaluation of a situation in light of a new information or additional thought; distancing, or attempting to separate oneself from an emotional experience; escape-avoidance,

wishful thinking or doing something to get one's mind off the situation. Willful suppression of upsetting emotions, which is a form of self-control, can lead to chronic physiological arousal and is associated with poor psychological adjustment which lead to poor academic achievement (Gross, Richard & John, 2006).

The finding of this study also showed that students who used effective coping strategies did well in their academic achievement. Problem-focused strategies were used. Felman (2009) states that problem-focused coping attempts to modify the stressful problem or sources of stress. His study showed that starting a study group to improve poor classroom performance is an example of problem-focused coping. In self-instructional training, people learn to talk to themselves and guide their behaviour in ways that help them cope more effectively (Pealin, 2003). They prepare different self-instructions to use at four critical stages of the stressful episode: preparing for the stressor, confronting the stressor, dealing with the feeling of being overwhelmed and appraising coping effort after the stressful situation. The finding of this study revealed that students used two of these self-instructions: confronting the stressor, and appraising coping efforts after the stressful situation. Such assertive actions help to improve academic performances. Finding of Keil (2004) that social support is one of the most important environmental resources lends support to the finding of this studying, where students sought the help of class-mates in preparing for examinations. The knowledge that we can rely on others for help and support in a time of crisis help blunt the impact of stress (Zubairu, 2008). In contrast, lack of social support is a significant vulnerability factor. Students who feel that they are part of a social system experience a greater sense of identity and meaning in their lives, which in turn results in greater academic performance. Resick (2005) found social support as reducing exposure to other risk factors, such as loneliness, that having the backing other students can increase one's sense of control over stressors, and true friends can apply social pressure to prevent people from coping with stressors in maladaptive ways.

Students' beliefs about how things are likely to turn out also play an important role in coping with stress and academic achievement. From the finding of this study, optimists have a rosy view of the future, expecting that in the long run, things will work out well. Pessimists tend to focus on the black cloud surrounding any silver lining. Recent research by Schwarzer (2000) indicates that optimistic students are at lowered risk for anxiety and depression when they confront stressful events. The finding showed that optimists appraised themselves as being less helpless in the face of stress and adjusted better to negative life events than did pessimists. Optimism is also a health protective factor. In a year-long study, optimists had about half as many infectious illnesses and visits to doctors as did pessimists (Zautra, 2003).

Resick (2005) found that students who expressed strong social support congruent with their educational goals, experience more feelings of self-efficiency, self-confidence and self-determination. Consequently, these students believed they were more successful in their academic endeavors in that they were better able to cope with their stressful experiences. If coping skills are effectives in decreasing stress and feelings of anxiety students have a greater chance for academic success (Dziegielwski, Turnage & Roest-Mart, 2004).

However, an additional result yielded by the analysis of the data of the present study indicated no difference between Imo and Kaduna State Students in the area of stress (t=0.710, p=0462). The calculated mean stress are 139.8521 and 139.3728 by students of Imo and Kaduna State respectively. This outcome is not surprising because irrespective of the state, students are exposed to the same or almost the same environmental factors which are sources of stress. The result of the present study showed that both states experience insurgency that manifest in different forms. Kidnapping in Imo, throwing of bombs in institutions and worship areas in Kaduna state. Ai, Peterson and Ubelhor (2002) agreed that insurgency and attack produce a level of stress for university students.

No significant difference was discovered between Imo and Kaduna state students in the areas of psychological stress. Lahey (2003) gave frustration and conflict within self, between self and others, and self and environment as basic stressor among university students. The researcher also discovered that lack of security was reported by students in Imo and Kaduna states. Both states have their state universities located at the heart of the state capital, thus exposing students to some dangers. Ross, Neibling and Heckert (1999) asserted that noise is a stressor that emanate from overcrowded environment. The finding also showed that Imo and Kaduna State are not able to provide adequate hostel accommodation and transportation for their state universities. Eighty percent of the students live off campus and the government have not provided buses to convey students to school.

The test results further indicated that there are no significant differences between federal and state university students in the area of stress (t=0.720, p=0.472). This outcome is not surprising because irrespective of the type of university, students are exposed to the same or almost the same environmental factors which are sources of stress. The result of the present study showed that both federal and state university students experience overcrowding, pollution and noise. Murkherjee (2005) agrees that these factors and their combination produce a level of stress for university students. The finding of this study also showed that lack of time, facing deadlines are common stressors to both federal and state university students. They have limited number of hours each day in which to accomplish tasks.

The finding of this present study is also in accordance with the study of Balarabe (2003) who states that stress among students have to do with lack of adequate feeding, clothing, accommodation and utilities like water, electricity, transportation, recreation and relaxation. No significant difference was discovered between federal and state universities in the areas of physical stress. Analysis of the present study showed no difference between federal and state university students in the area of psychological stress. Lahey (2003) gave frustration and conflict within self, between self and others,

and self and environment as basic stressor among university students. The researchers discovered that lack of security was reported by both federal and state university students. There was no difference in the area of attacks by members of the local community and some student groups causing problem in the university. Finding of Maimasari (2002) also showed that villagers where universities are located enter the school at will, attack and abduct students. Even cases of rape by members of the community were reported. This report is in line with the present study.

An additional result yielded by the analysis of the data in the present study indicated significant difference in coping strategies between male and female students. (t=5.823,p=0.000) The finding showed that male students use more of problem-focused and defensive coping while the female use social support and emotion-focused. These findings corroborate the work of Ptacek, Smith and Zanas (2001) who found that men use problem-focused coping as the first strategy when they confront a stressor. Heath (2008) also found that men use ineffective coping method of taking tobacco, alcohol, and other drugs. The study of Leibenluff (2002) also revealed that men are socialized to respond to stress with “acting out” behaviours such as alcoholism and aggression. The finding of the present study is also in accordance with the study of Pearlin (2003) who found that women use more of emotion-focused coping. Schwarzer (2000) also found that women who tend to have larger support networks and higher needs for affiliation than men, are more likely than men to seek social supports.

Therefore, the finding of the present study agrees with the work of Keil (2004) who found that general pattern of coping preferences is consistent with the socialization that boys and girls traditionally experience. In most cultures, boys are pushed to be more independent, as assertive and self-sufficient, whereas girls are expected to be more emotionally expressive, supportive and dependent. In the work of Taylor (2006) the common male response is “fight-or-flight”, whereas women are more likely than men to “tend-and-befriend”. Befriending is the creation and maintenance

of social networks. But why should a significant difference show up at all? The gender-role learning by Taylor (2006) proposes that women's "tend-and-befriend" style differs from the "fight-or-flight" pattern so often seen in men because of gender differences in how hormones combine under stress. In a similar study conducted by Daryne (2004) on gender and coping strategies, he found that the two genders often operate in different social contexts; both tend to develop emotional dispositions and personality traits. Accordingly, their responses and coping mechanisms to stress situation vary.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the summary conclusion and recommendations of the study based on the results of the findings.

5.2 Summary

This study titled "Relationships among stress, coping strategies and academic achievement of university undergraduate students in Imo and Kaduna States" was structured into five chapters to effectively carry out this research. The study raised seven objectives that guided the study. Based on these objectives, research questions and hypotheses were formulated, the assumptions and significance of the study were highlighted, scope and delimitations were also discussed.

Chapter two reviewed literature related to the research topic. The review critically examined and analyzed the views of some psychologists and other concerned scholars on the concepts, types and theories of the main variables; stress, coping strategies and academic achievement. The theoretical frame work on stress included systematic stress theory, resource theories of stress and cognitive theory of stress; theories of coping strategies included cognitive appraisal theory and tolerance of ambiguity theory. The last part reviewed empirical studies related to the study.

In chapter three the design and methodology of the study were discussed. The research design was a correlational survey, the population of the study comprised of 300 level students of Federal University of Technology, Owerri and Imo State University, Ahmadu Bello

University, Zaria and Kaduna State University, Kaduna. Out of the 4,538 students that form the population, a total of 337 students were sampled using simple random sampling procedure. Three instruments were used for data collection; students stress questionnaire, students coping strategy questionnaire and students' academic performance scores. The returned instruments were analyzed using Pearson Product Moment Correlation Coefficient (r), and independent t-test.

Chapter four presented the analysis of the data collected which were analyzed through the use of descriptive and inferential statistics.

The findings in this study after the analysis gave the following results:

1. It was discovered that, there are significant negative relationship between stress and academic achievement of students in Imo State.
2. There are significant negative relationship between stress and academic achievement of students in Kaduna State.
3. There are significant negative relationship between coping strategy and academic achievement of students in Imo State.
4. There are significant negative relationship between coping strategy and academic achievement of students in Kaduna State.
5. There are no significant difference between Imo and Kaduna State Students in the area of stress.
6. There are no significant different between Federal and State University students in the area of stress.
7. There are significant difference between male and female University students in their coping strategies.

5.3 Conclusion

Based on the findings of the study, the following conclusions are made:

- Significant negative relationship was established between stress and academic achievement of students. It is therefore concluded that stress constitute serious problems that distract the students from maximum academic output and effective social life.
- Significant negative relationship exists between coping strategies and academic achievement of students. When confronted by a stressor, one of the most significant appraisals student makes is whether or not he has sufficient resources to cope with the demands. It is concluded that students use ineffective and dangerous coping strategies.
- There is no difference in the area of stress among Imo and Kaduna State Students.
- No significant difference between Federal and state university students in the area of stress. Irrespective of the type of university, students are exposed to the same or almost the same environmental factors which predisposes stress among them.
- Male and Female students differ in their coping strategies. Male students used more of problem-focused and escape-avoidance than female students who use more of emotion-focused coping strategies. Male students are more assertive while female student are more emotionally expressive and dependent.

A moderate amount of stress is necessary in human life. Also, when stress is properly managed, it teaches the student to cope with difficult circumstance and solve difficult problem, which can increase his confidence to deal with future stressful situations.

5.4 Recommendations

The following recommendations are suggested as a result of the findings of the study:

1. Based on the findings of the study which indicated a relationship between stress and academic achievement of students. It is recommended that universities should provide a conducive environment by improving on enough hostels, classrooms, and reading materials for effective learning and interpersonal relationship.

2. The findings of the study show that coping strategies have relationship with academic achievement of students. It is therefore recommended that university should organize programs on stress management that will teach students how to appraise stressful events, develop coping skills and put these skills into practical use.

3. The finding reveal that equipped laboratories and other physical learning facilities and materials are lacking in the universities. It is therefore recommended that provisions of current, up to date and effective learning facilities in our universities be made. Internet facilities should be made functional.

4. The study also found that university students have problem of accommodation and inadequate classroom. There is need to improve on hostel accommodation and conducive classrooms for lectures. Basic amenities such as light and water should be the priority of every university.

5. It is also revealed that few female students participate in sports. Sporting activity is a good source of stress reduction. It is therefore recommended that universities should provide modern equipment for sports and encourage every student to take part.

6. The study also revealed that universities are not well secured. Adequate security should be provided within and around the university. If a student gets a sense of security, it helps him to manipulate his environment.
7. The study found that strikes disrupt academic calendar. It is recommended that the government, both at state and federal levels, should look into the demands of non-academic and academic staff of universities.
8. Based on the finding on the study, it is also recommended that guidance and counseling units in the university should develop programs that will bring members of the University into close contact with each other, in order to harmonize various segments of the university, for effective interpersonal relationships.

Other recommendations are:

1. Inadequacy of interpersonal needs in terms of freedom of speech, interaction and communications impair students success in university. It is therefore recommended that interpersonal relationship be established between lecturers and students.
2. It is recommended that the physical, psychological and social environment of the university should be developed, maintained and sustained. Social centers and recreational centers should be made functional in order to make the university environment an ideal place for effective teaching and learning.
3. Communication is very important in making or creating an atmosphere for effective teaching and learning. It is therefore recommended that channel of communication within the university between authority and students be made effective and easier, through bulletin, notice boards, etc.

4. The university should meet some basic needs of the lecturers, such as increase in wages, incentives and satisfaction of social needs. This will enhance their productivity and in turn improve students learning and academic achievement.

5. Based on the findings of the study, it is recommended that the federal government should address the current harsh economic problems in order to create a conducive economic climate for encouraging Nigerian families. If a student is financially secured, his feeding and clothing will be assured. This will reduce the stress experience by students.

6. It is recommended that the desirable physical and psychological learning environment should be developed, maintained and sustained through the collaborative efforts of the Nigeria government, educational policy makers, University authority and lecturers as well.

5.5 Suggestions for further Study

The researcher is of the view that this present study should be replicated and extended to cover the entire country, this will help in validating the findings of the present research. Scholars could carry out studies in related areas with students in the Polytechnics and Colleges of Education.

REFERENCES

Aggarwal, J. C (2007). *Psychology of Learning and Development. India:* Shipra Publication.

Aldwin, C. M. (1996). The development of coping resources in adulthood, *Journal of Personality. Vol 64, 837-871*

Aldwin, C. M. (2007). *Stress, Coping and development (2nd ed.).* New York; The Guilford Press.

Anene, E.M (1997). *Occupational Stress, Counseling the Workers for Survival*. Onitsha: Academic Printing Press.

Archer, J & Lamnin, S (1985) An Investigation of Personal and Academic Stressors on College Students. *Personnel, 26,210-215.*

Asuni, T., Schoenberg, F, & Swift, C. (1994) *Mental and Disease in Africa*. Ibadan, Nigeria: Spectrum Books Ltd.

Averach, S. & Gramblings, S. E. (2006) Stress (Psychology) Microsoft Student 2007 (DVD) Redmond, W. A Microsoft Corporation.

Ai, A. L., Peterson, C., & Ubelhor, D. (2002). War-related trauma and Symptoms of posttraumatic stress disorder among adult Kosovar refugees. *Journal of Traumatic Stress, 15, 157 -160.*

Bajah, S. T (1981) Dichotomy of Science and Superstitious beliefs. Recognition in Science Education for Africa. *Journal of the Science Teachers Association of Nigeria. Vol. 20 No. 1 pp 22-32.*

Balarabe, M (2003) "Psychological Dimensions of Stress: likely Effects and Management strategies". Maiduguri: *Journal of Educational Studies, Vol. 7, pp 22-31.*

Balarabe, M. (2007). Test Manual on Stress and its Effects on Adjustment and Performance.

Balarabe, M. (2008). Influence of Intelligence and Personality on Stress among University Medical Students. *The Nigerian Educational Psychologist*, 7,194-200.

Balarabe, M. (2009) Stress, Anxiety, Adjustment and mental Health, *Journal of Psychology and Mental Health, Vol. 1, pp 35-47*

Bandura, A. (2001), Social cognitive theory. *Annual Review of Psychology* (Vol. 52). Palo Alto, CA: Annual Reviews.

Baumeister, R.F. (1984). Choking under pressure: Self-consciousness and paradoxical effects of incentives on skillful performance. *Journal of Personality and Social Psychology,* 46,620-620.

Beilock, S.L. (2008). Math performance in stressful situations. *Current Directions in Psychological Science,* 17(15), 339-343.

Beilock, S. L (2010). Choke: *What the secrets of the brain reveal about getting it right when you have to.* New York, NY: Free Press

Bolger, N., Zuckerman, A., & Kessler, R. C. (2000). Invisible support and adjustment to stress. *Journal of Personality and Social Psychology, 79, 953-961.*

Bond, M. (1999). Group Values & Health: A Cultural Level Examination. *Psychology and Health, 5, 137-52.*

Bowler, R. (1982). A Brief Review of Test Anxiety in West German Schools. In Scharzer; H.M Van der Pleog (Ed) Advances in Test Anxiety Research, Vol. 1, pp85-94 Lisse Netherlandsswets and Zeitlinger Eribaun.

Borod, J. C. (2000). *The Neuropsychology of Emotion.* New York: Oxford University Press Brody, J. E (1990). *Personal Health.* New York: Times.

Calhoun, L. G., & Tedeschi, R. G. (2008). The paradox of struggling with trauma: Guidelines for practice and directions for research. In S. Joseph & P. A. Linley (Eds.), *Trauma, recovery, and growth: positive psychological perspectives on posttraumatic stress.* Hoboken, NJ: Wiley.

Chunn, S. E (1994) *Psychodynamic Approaches. In L. Comas Diaz-Beverly Green (Eds).* New York: California Press.

Clark, E. H (1993) An Analysis of Occupational Stress Factors as Perceived by School Teachers. Unpublished Doctorate Dissertation. Arburn University.

Coan, J. A. Schaefer, H. S., & Davidson, R. J. (2006). Lending a Hand: Social Regulation of the Neural Response to Threat. *Psychological Science, 17, 1032-1039.*

Cohen, R. J, & Swerdik, M.E. (2010). Psychological testing and assessment : *An Introduction to Tests and Measurement. (7th ed.).* New York: Mc Graw – Hill.

Cohen, S, Tyrrell, D.A.J, & Smith, A.P. (1993) Negative life events, perceived stress, negative

effect and susceptibility to the common cold. *Journal of Personality and Social Psychology, 64,131-140.*

Cohen, S., Underwood, L. G., & Gottlieb, B. H. (2000). *Social support measurement and intervention: A guide for health and social scientists*. London: Oxford University Press.

Cole, D.A (1991) "Preliminary Support for a Competency-Based Model of Depression in Children" *Journal of Abnormal Psychology. 100: 181 – 190.*

Coleman, J.S (1999). *Adolescents and the Schools.* New York: Basic Books.

Connidis, I. A & Davies, L (1990). Confidants and Companions in life. The place of family and Friends. *Journal of Gerontology, Social Sciences 45, pp 141-149.*

Contrada, R. J., Ashmore, R. D., Gary, M. L., & Chasse; U. (2000). Ethnicity-related sources of Stress and their Effects on Well-Being. *Psychological Science, 9, 136-143.*

Cox, M.M (1979). *Stress.* New York: Baltimore University Park Press.

Coyne, J. C (1991). *Social Support and Physical Health Symptoms. Health and Behaviour Life Span Developmental Psychology. Perspectives on Stress and Coping.* New Jersy: Hills Date Erlbaun.

Daryne, E (2004). Stress and Gender. Http:/myweb.com/content/article.

Davidoff, L.D (1987). *Introduction to Psychology (3rd Edition).* New York: McGraw- Hill Inc.

Davidson, J. M., Smith, E R & Levine, S. T (1978). *Psychology of Stress.* In H. Ursin, E. Bande, and S. Levine (Eds). New York: Academic Press.

Davidyan, A (2008). Theories of Stress. Retrieved, July 2011. Http:Serverhypertension.net

Denis, C (1993). *Psychology and the Teacher.* London; Cassell.

Delongis, A. (2000). Coping skills. In G. Fink (ed.), Encyclopedia of Stress. San Diego, C. A; Academic Press.

Dettenbacher, J (1980). Worry and Emotionality in Test Anxiety in West German Schools. In I.G Saroson (Ed) Test Anxiety Theories Research and Application. Hillsdane N.J Erlbaun

Diego, S. (2004). *Early Life Stress: Effects on Mental Function and Immune System in Adult Humans.* Irvine: University of California

Dziegielwski, S. F., Turnage, B. & Roest-Marti, S (2004). Addressing Stress with Social work Students: A Controlled Evaluation. *Journal of Social Work Education, 40 (1), 105-119.*

Edward, L (2006). Effects of Stress on the Brain. Http:www.wellnessarticles. net

Elsie, C (2001). Designing a Learning Environment that Alleviate Anxiety. Retrieved from Http:/www.cdti.nus.edu.sg/linkmar2002/tm2.htm

Erikson, E. H (1976). *Identity, Youth and Crisis*. New York: Norton Publishers.

Feeny, N. C, & Foa, E. B. (2000). *Sexual Assault. In G. Fink (Ed.)* Encyclopedia of Stress. San Diego: Academic Press.

Feist, G. J., & Rosenberg, E. L. (2010). *Psychology: Making Connections*. New York: McGraw-Hill.

Feldman, R. S. (1994). *Essentials of Understanding Psychology.* New York: McGraw Hill, Inc.

Feldman, R. S. (2009). *Understanding Psychology*. (9th ed.) New York: McGrow-Hill.

Felsten, G & Wilcox, T. (1992). Influences of Stress and Situation-Specific Mastery Beliefs and Satisfaction with Social Support On Well Being and Academic Performance. *Psychological Reports 70,291-303.*

Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promises. *Annual Review of psychology* (vol. 55). Palo Alto, CA: Annual Reviews.

Frazier, A. P., & Schauben, J. L. (1994). Stressful life events and psychological adjustment among female college students. *Measurement and Evaluation in Counselling and Development*, 27(1), 1-2.

Fritz, H. I., Nagurney, A. J., & Helgeson, V. S. (2000). Social interactions and cardiovascular reactivity during problem disclosure among friends. *Personality and Social Psychology Bullentin*, 29, 713-725.

Frydenberge, E. (2008). *Adolescent coping.* Clifton, NJ: Psychology Press.

Fullerton, C. S., Ursano, R. J. & Kao, T. C. (2001). Gender differences in Post-Traumatic Stress Disorder After Motor Vehicle Accidents. *American Journal of Psychiatry. 158, 1486-1491.*

Garraet, J. B (2001). Gender Differences in College Related Stress. *Undergraduate Journal of Psychology, 14.*

Genyi, G. & Deakaa, M E. (2005). Family Economic Crisis and Corruption in Nigeria. Critical Challenges for 21st Century. *The Journal of Family Development.* Vol. 2. , August 2005. The Publication of Center for Family Development.

Glover, J. A (1982). *Educational Psychology:* Principles and Applications. Canada: Little Brown and Company. Ltd

Greenberg, O. C (1987). *Stress Management*. W. M. C. New York: Brown Publishers.

Greenberg, J. S (2005). *Comprehensive Stress Management.* New York: McGraw-Hill

Gross, J. J. Richards, J. M. & John, O. P. (2006). Emotion Regulation in Everyday Life. Washington, DC: *American Psychological Association*, 23, 13-35.

Gunderson, E. K. E. & Rahe, R, H (1974*). Life, Stress and Illness*. Springfield: Charles C. Thomas.

Halpern, D. F. (2000). Validity, Fairness, and group differences: Tough questions for selection testing. *Psychology, Public Policy, and Law, 6, 56 – 62.*

Heath, M. D (2008). What is Stress? Coined From University Of Massachusetts Medical School Stress Reduction Programme

Helgeson, S. L (1988). The Second IEA Science Study. Data Related to Pre-College Science in the USA. *Eric/SMEAC Science Education Project No. 1, pp 1-4*

Iwuji, B. C (1990). Stress and Modern Living. How to Cope with Excessive Stress. *Journal of Counseling Psychology. Vol. 2, No.1.pp1-6*

Janis, I. L (1971). *Stress and Frustration.* New York: Harcourt Brace Jovanovich.

Jegede, O. J; Naidoo, P. & Okebukola, P. A. O (1995). The Validity of the Science Students Inventory, Using a Sample of South African High School Student pp1 - 30

Johnson, P. B., & Malow-Iroff, M. S. (2008). *Adolescents and risk.* Westport, CT: Praeger.

Kalish, R. A (1981*). Death, Grief and Caring Relationships.* Monteney, CA: Brooks/Cole.

Kamarck, T. W., Manuck, S. B & Jennings, J. R (1990). *Social Support Reduces Cardiovascular Reactivity to Psychological Challenge*. A Laboratory Model.

Kaplan R. M & Tashima, M. T (1990). The Functional Effects of Social Relationships on Illness and Disability. In B. R. Saronso, I. G. Saronso & G. R. Pierce (Eds) Social Support. An Interactional View., New York: Wiley.

Keil, R. M. K (2004). "Coping and Stress: A Conceptual Analysis" *Journal of Advance Nursing Vol. 45 No. 6.*

Kemeny, M. E. (2004). The psychology of stress. *Current Directions in Psychological Science, 12, 124,-129*

Kiecolt-Glaser, J. K., & Glaser, R. (1995). Measurement of immune response. In S. Cohen, R.C. Kessler, & L.U. Gordon (Eds.), *Measuring Stress: A guide for health and social scientists.* New York, NY: Oxford University Press.

King, L. A. (2010). Essentials of Psychology. New York: McGraw-Hill.

Krejcie, R.V. & Morgan, D. W. (1970). *Determining Sample size for research activities in educational and psychological measurements*. 607-610. New York: McGraw-Hill.

Krohne, H. W. (2002). *Stress and Coping Theories.* England: John Wiley & Sons Ltd

Lahey, B.B (2003). *An Introduction to Psychology*. New York: McGraw-Hill

Lahey, B. B (2004). *Psychology: An Introduction.* New York: McGraw-Hill

Laura, E. B. (2007). *Child development.* India: Pearson Prentice-Hall.

Lazarus, R. S. (2000). Toward better research on stress and coping. *American Psychologists,* 55(6), 665-673.

Lazarus, R. S & Folkman, S (1984). *Stress, Appraisal and Coping*. New York: Springer

Lazarus, R. S (2007). *Psychological Description of Stress.* New York: McGraw-Hill

Lazarus, R. S & Folkman, S (2007). *Stress and Depression.* New York: Springer.

Leibenluff, M. D (2002). *Why are so Many Women Depressed*? Scientific American, Inc

Leon-Guerrero, A. (2009). *Social problems* (2nd ed.) Thousand Oaks, CA: Sage.

Lepore, S (1992). Role of Control and Social Support in Explaining the Stress of Hassles and Crowding. *Environment and Behaviour, 24, (6), 785-811.*

Linden,W, Lenz, J.W, & Con, A.H.(2001). Individualized stress management for primary hypertension: A randomized trial. *Archives of Internal Medicine*, 161, 1071-1080.

Livesley, W. J. (2003*). Practical management of personality disorder*. New York: Guilford Press.

Long, C. R., Seburn, M., Averill, J. R., & More, T. A. (2003). Solitude experiences: Varieties, settings, and individual differences. *Personality and Social Psychology Bulletin*, 29, 578-583.

Lovallo, W. (2005). *Stress and health: Biological and Psychological interactions*. Newbury Park, CA: Sage.

Magol, S. K. (2008). *Advanced Educational Psychology*. India: Prentice-Hall.

Maisamari, J. Y (2002). *Stress and Stress Management Strategies*. Zaria: Joyce Printers & Publishing Co.

Major, B., Spencer, S., Schmader, T., Wolfe, C., & Crocker, J. (1998). Coping with negative stereotypes about intellectual performance: The role of psychology disengagement. *Personality and Social Psychology Bulletin*, 24, 34-50.

Man, T, & Hosek, D (1989). The Development and Validation of Czech form of the Test Anxiety Inventory, in R. Schwarzer, H. M, Van der Ploeg and C. D Spielberger *Advances in Test Anxiety Research, Vol. 6 Lisse Netherlands.*

Mary, E. W & Jennifer, A. M (2003). Children, Health and Learning; a Guide to the Issues: London Connecticut: West Post National Mental Health Information Centre (Undated) Anxiety Disorder Retrieved 24/09/08 from. http:/mentalhealth.samhea.gov/publication/aupubs/ken/28-00451

Marsland, A. L., Cohen, S., Rabin, B. S., & Manuck, S. B. (2001). Associations between stress, trait negative affect, acute immune reactivity, and antibody response to Hepatitis B. Injection in healthy young adults. *Health Psychology, 20, 4-11.*

Masten, A. S. (2006). Developmental psychopathology: Pathways to the future International *Journal of Behavioural Development*, 31, 46-53.

Masten, A. S. (2007). Ordinary magic: Resilience processes in development. *American psychologist, 56, 227-238.*

Matheny, U.B, Ayucok, D.W, Push J.C., Curriller, W. L & Silva, C. K. A (1986) Sorters Coping: A Quantitative and Synthesis with Application for Treatment. *The Counseling Psychologist Vol. 14.No. 4.*

Mathren, T. N (1998). Adult Students' Stress: Culture and Gender Bias in Higher Education. West Port City: Bersen & Garvey.

Mays, V. M, Cochran, S. D., & Barnes, N. W. (2007). Race, Race-Based Discrimination, and Health Outcomes Among African Americans. *Annual Review of Clinical Psychology, 58,201-225.*

McEwen, B. S. (2001). *Coping with the environment: Neural and endocrine mechanisms.* New York: Oxford University Press.

McEwen, B.S. (2005) Stressed or stressed out: What is the difference? *Journal of Psychiatry and Neuroscience,* 30(5), 315 – 18.

Mohammed, A. I (2001). Effects of Parental Background on Psycho-Social Problems of Almajirai Pupils in Traditional Quranic Schools in Kaduna State. An Unpublished Ph.D Thesis, A.B.U Zaria

Morgan, C. T., Richard, A. K., Weisz, J. R. & Schopler, J. (2001). *Introduction to Psychology.* New Delhi: Tata McGraw-Hill.

Murkherjee, A (2205). *Educational Psychology*. Zaria: S Asekome & Co. Publishers

Myers, D. G (1990). *Social Psychology (3rd Ed).* New York: McGraw-Hill

Myers, D. G (2005). *Social Psychology (8th Ed).* New Delhi: McGraw-Hill

Nathan, R. G., "Stress", World Book online Americas Edition, Http:/www.aolsvc.worldbook.aol.com/wbol/wbpage/na/ar/co/536195. April 3, 2002.

National Research Council. (2001). *Knowing what students know.* Washington, D. C: National Academic Press.

Ndu, F.O.C (1990). Planning and Organization of practical work in biology in Secondary Schools. *Journal of Science Teachers Association of Nigeria, Vol. 18, No. 2 pp 49 – 60.*

Newman, B. M, & Newman, P. R (1983). *Development through life:* A psychosocial approach. Homewood Illinois: The Dorsey.

Nolen-Hoeksema, S. (2007). *Abnormal psychology* (4th ed.). New York: McGraw-Hill.

Norem, J. K & Cantor, N (1986). Anticipating and post-hoc cushioning strategies optimum and defensive pessimism in "risky" situation. *Cognitive therapy research, 10, pp 347 – 362.*

Olivia, A., Jimenez, J. M., & Para, A. (2008). Protective effect of supportive family relationships and the influence of stressful life events on adolescent adjustment. *Anxiety, Stress and Coping,* 12, 1-5.

Papalia, E. D,& Olds, S. W (1985). *Psychology.* New York: McGraw-Hill.

Passer, M. W & Smith, R. E (2001). *Psychology: Frontiers and Applications.* New York: McGraw-Hill

Pearlin, L. I. (2003). The Structure of Coping. *Journal of Health and Social Behaviour, 19, 2-21*

Pennebaker, J. W (1997). Writing about Emotional Experiences as a therapeutic process. *Psychological Sciences. 8. 162 – 173*

Pennebaker, J.W.(1995). *Emotion, disclosure and health*. Washington, DC: American Psychological Association.

Pennebaker J.W.(1997). *Opening up: The healing power of expressing emotions*. New York: Guilford Press.

Peterson, C, & Seligman, M. E. (2003). Character strengths before and after September 11. *Psychological Science,* 14, 381 – 384.

Peterson, C., & Seligman, M. E. P. (2004). Character strengths and virtues: *A handbook and classification.* Washington, DC: American Psychological Association.

Phinney, J. S. & Haas, K. (2003). The process of coping among ethnic minority first generation college freshmen: A narrative approach. *The Journal of Social Psychology*, 143(6), 707-726.

Ptacek, J. T., Smith, R.E, & Zanas J (2001). Gender, Appraisal, and Coping: *A longitudinal Analysis Journals of Personality, 60, 747-769*

Rasmussen, O. V & Lunder, I (1980). Evaluation of Investigations of 200 torture victims. *Denis Medical Bulletin, 27, 241-243*

Redford, W (1998) Cited in Daryne. E. (2004). Stress and Gender. http://myweb.com/content/article

Resick, P.(2005). *Comprehensive Stress Management.* New York: McGraw-Hill.

Richardson, H, Lee S., Seo D. & Rivier, C (2004). *Stress During the Last Third of Pregnancy*. California, Salt Institute: LaJolla.

Rohland, B. M., Kruse, G. R. & Rohrer, J. E. (2004). Validation of a single-item measure of burnout against the Maslach burnout inventory among physicians. *Stress and Health*, 20, 75-79

Romeo, R. D & McEwen, B.S (2006). Stress and the Adolescent Brain. *Acad. Sci.1094; 202-214.*

Romeo, R. D, McEwen, B.S & Folkman, S (2006). Stress History and Pubertal Development Interact to Shape Hypothalamic Pituitary Adrenal Axis Plasticity. *Endocrinal, 147:1664-74.*

Rook, K, S (1984). The Negative Side of Social Interaction: Impact of Psychosocial Well-Being. *Journal of Personality and Social Psychology. 46. 1097-1180.*

Ross, S. E., Neibling, B. C. & Heckert, T. M. (1999). Sources of stress among college students. *College Student Journal*, 33(2), 312-317.

Rubonis A.V, & Bickman, L. (1991). Psychology Impairment in the Wake of Disaster; The Disaster-Psychopathology Relationship. *Psychological Bulletin, 109, 384-399.*

Santrock, J. W (2001). *Educational Psychology.* New York: McGraw-Hill

Santrock, J. W. (2009). *Educational Psychology* (4th ed.*)*. New York: McGraw – Hill.

Schwarzer, R. (2000). Stress and Coping from a Social-Cognitive Perspective. *Annals of the New York Academy of Sciences, 851, 531-537.*

Seligman, M.E.P., & Csikszentmiholyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5 -14.

Seligman, M.E.P., Walker, E. E, & Resenhan, D. L (2001). *Abnormal Psychology*. New York: W. W. Norton.

Selye, H. (1999) "Biological Reaction to Stress Chart. *Chronic Fatigue Unmasked" In Nature, Vol. 138, No 32.*

Selye, H (1976). *The Stress of Life*. New York: McGraw Hill

Sergerstrom, S. C., & Miller, G. E. (2004). Psychological stress and the human immune system. A meta-analytic study of 30 years of inquiry. *Psychological Bulletin, 130, 601-630.*

Sharma, P.S (2007*). Education and Human Development*. New Delhi: Kanishka Publishers

Shashidhar, S, Rao, C & Hedge, R (2009). Factors Affecting Scholastic Performances of Adolescents. *Indian Journal of Pediatrics 76(5), 495-499*

Showers, C & Cantor, N (1985). Social Cognition: A Look at Motivated Strategies. *Annual Review of Psychology, 36, 275 – 305.*

Sideridis, G. D. (2006) Coping is not an 'either' 'or': The interaction of coping strategies in regulating affect, arousal and performance, *Stress and Health*, 22, 315 - 27

Sloan, D., & Marx, D. (2004). A closer examination of the structured written disclosure procedure. *Journal of Consulting and Clinical Psychology*, 72, 165-175.

Snyder, C. R. (2001). Coping with stress: Effective people and processes. New York: Oxford University Press.

Spielberger, C. D (1982). *Understanding Stress in Anxiety*. New York: Harper and Row

Steckler, T., Kalin, N. H., & Reul, J. (2005). *Handbook of stress and the brain: Part 2. Stress: integrative and clinical aspects.* Elsevier Science and Technology.

Sullivan, H. S (1990). *The Interpersonal Theory of Psychiatry*. New York: W. W. Norton & Company, Inc.

Symons, L (1997). How to Tell if You have Stress Signs. Sweet Blair College academic Resource Centre www.arcsbsedu/stress/quiz/html.

Steptoe, A. (2001). Control and Stress. In G Fink (ed.), *Encyclopedia of Stress.* San Diego: Academic Press.

Sun, M. K. (2005). *Cognition and mood interactions*. Hauppauge, NY: Nova Science.

Taylor, S. E. (1999). *Health psychology (2nd ed.).* Boston: McGraw-Hill.

Taylor, S. E. (2006). *Health Psychology (4th ed.)*. Boston, MA: McGraw-Hill.

Taylor, S. E. (2006). *Tend and Befriend:* Biobehavioural Bases of Affiliation Under Stress. *Current Directions in Psychological Science, 15,273-277.*

Taylor, S. E. Klein, L. C & Lewis, B. P. (2000) Biobehavioural responses to stress in females: tend-and-befriend, not fight-or-flight, *Psychological Review,* 108(3), 411-29.

Tolin, D. F., & Foa, E. B. (2006). Sex differences in Trauma and Posttraumatic Stress Disorder: A Quantitative Review of 25 Years of Research. *Psychological Bulletin, 132, 959-992.*

Udoh, C. O & Ajala J. (2005) *Mental and Social Health.* Ibadan: Wemilore Press Ltd.

Umar, H. (2008). The Influence of Stress, Anxiety and Mental Health on Effective Learning. *The Nigerian Educational Psychologists*, 7, 79-86.

Valent, P. (2000). Stress Effects of the Holocaust InG. Fink (Ed.) Encyclopedia of Stress. *San Diego: Academic Press.*

Vander-Zanden, J. W (1995). *Human Development. 5th Edition*. Boston: McGraw-Hill
vanPraag, H. M. (2004). *Stress, vulnerability and depression.* New York: Cambridge University Press.

vanPraag, H. M. (2004). *Stress vulnerability and depression*. New York: Cambridge University Press.

Western D. I (1996). *Psychology: Mind, Brain and Culture*. New York: John Wiley and sons, Inc.

Wheatney, D (1977). *Stress and the heart*. New York: Raven Press.

Wine, J. D (1982). Evaluating Anxiety. A Cognitive Attention Construct Cited in H.S Krohne and I. Laux (Eds) Achievement Stress and Anxiety. 207 – 219. Washington DC: Hemisphere

Wolfe, S (1979*). Human Gastric Function*. New York: Oxford University Press.

Zakowski, S. G., Hall, M. H., Klein, L. C. & Baum, A. (2001) Appraised control, coping, and stress on a community sample: a test of the goodness-of-fit hypothesis. *Annals of Behavioural Medicine,* 23(3), 158-65.

Zautra, A. J (2003). *Emotions, Stress and Health.* New York: Oxford University Press

Zubairu, I. (2008). Psychological Stress among Secondary School Teachers and their Coping Strategies. *The Nigerian Educational Psychologist,* 7, 162-167.

APPENDIX A

INTRODUCTORY LETTER

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND COUNSELLING

FACULTY OF EDUCATION,

AHMADU BELLO UNIVERSITY, ZARIA

Our Ref: _____ Date: 06/07/2013

_____

_____

_____

_____

Dear Sir,

STUDENTS' FIELD RESEARCH

The Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria requires each student working for a Degree to complete a research project/ Thesis/Dissertation. They are therefore required to collect data for the research studies.

Most of them will need to be allowed access to certain relevant documents and some valuable information which you may have.

Please accord them all the necessary assistance.

TOPIC OF RESEARCH:

Relationships among Stress Coping Strategies and Academic Achievement of University Undergraduate Students in Imo and Kaduna States Nigeria.

Thank you for your continued cooperation.

Yours Sincerely,

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND COUNSELLING A.B.U. ZARIA

Kmdz 6/7/13

Research Adviser

APPENDIX II

STUDENTS STRESS AND COPING STRATEGIES QUESTIONNAIRE

Dear Respondent,

This study intends to find out the relationship among stress, coping strategies and Academic Achievement of university undergraduate students in Imo and Kaduna States, Nigeria. The research is a purely academic study. Your responses will be treated with strict confidentiality; you should therefore feel free to respond to every item provided.

Thank you.

SECTION A: PERSONAL DATA

Fill in the details below before responding to the item that follow:

1. Name ……

2. Gender Male ( ) Female ( )

3. Faculty:……...

4. Department:……

5. Course of Study;……

6. Level of Study:……...

7. Type of University:

   a. Federal ( ) b. State ( )

8. University location

   a. Imo ( ) b. Kaduna ( )

APPENDIX III

SECTION B: STUDENTS STRESS QUESTIONNAIRE

INSTRUCTION: Please complete the questionnaire by ticking (✔) the appropriate column

	PHYSICAL STRESS				
S/N	**MEALS**	**Strongly Agreed**	**Agreed**	**Disagreed**	**Strongly Disagreed**
1.	Nutritional value of the meals I take are adequate				
2.	1 skip lunch everyday				
3.	My feeding allowance is not regular				
4.	My financial resources cannot satisfy my feeding needs				
5.	I am not satisfied with the meals I take				
	CLOTHING				
6.	My clothes are adequate for my need				
7.	I am not happy with my present mode of dressing				
8.	My finances cannot satisfy my clothing needs.				
9.	I borrow clothes from friends				
10.	I am always conscious of what I wear				
	ACCOMMODATION/FACILITIES				
11.	My present accommodation is adequate for my needs				
12.	My room is always noisy				
13.	My hostel/accommodation has adequate water supply				
14.	There is constant electricity supply where I stay				
15.	Transportation is a daily problem for me				
	HEALTH				
16.	Some obstruction in the nose or chest often interferes with my breathing				
17.	I suffer from constant headache				
18.	Some days, I suffer from indigestion				
19.	I feel worn-out a lot of the time				
20.	Situation of things around make me suffer from sleeplessness				
	RECREATION/RELAXATION				
21.	I am able to take a short rest in the afternoon				

22.	I belong to a social club/society				
23.	I actively participate in a sports/games				
24.	I sit and chat with friends regularly				
25.	Other students interfere with my rest				
	PSYCOLOGICAL STRESS				
	SECURITY				
1.	I am concerned about my personal security				
2.	I am concerned about the safety of my property				
3.	Attacks from members of the local community worries me				
4.	Some student groups/clubs cause problem in the school that worries me				
5.	The school has adequate security guards				
	SOCIAL RELATIONSHIPS STRESS				
6.	My family members are very supportive				
7.	I have a satisfying relationship with a member of the opposite sex.				
8.	Having lost a dear one worries me a lot				
9.	I have friends I can trust to discuss my problems with				
10.	Our lectures are good moral guides for us				
	ACADEMIC STRESS				
11.	I am not really interested in the course I am doing				
12.	There is a scarcity of learning materials in my course				
13.	I worry about the commitment of some of my lecturers?				
14.	Lecture rooms are often congested and rowdy				
15.	I am worried that ASUU strikes may disrupt the academic calendar				
	FUTURE CONCERNS/CAREER STRESS				
16.	I often wonder whether I will be able to find a job after graduating				
17.	I worry about finding a suitable life partner				
18.	I worry about how my life may turn out to be in the future				
19.	The attitude of our leaders does not give me hope that things will improve in the future				
20.	I feel I will be able to fend for myself in the absence of government employment				

	STRESS/DISTRESS SYMPTOMS				
21.	I find it difficult to settle down to work				
22.	Different ideas run through my head all at the same time				
23.	I find it hard to concentrate when I go to study				
24.	I get nervous attacks				
25.	I feel miserable for no good reason				

APPENDIX IV

SECTION C: STUDENTS COPING STRATEGY QUESTIONNAIRE

INSTRUCTION: Please complete the questionnaire by ticking (✔) the appropriate column

	COPING STRATEGIES				
S/N		**Strongly Agreed**	**Agreed**	**Disagreed**	**Strongly Disagreed**
1.	Getting away from the problem				
2.	Ignoring the problem and starting afresh				
3.	Pretending I have an illness				
4.	Getting support from people around				
5.	Blaming others for the problem				
6.	Adjusting and accepting things as they come				
7.	Crying over it				
8.	Taking some intoxicant				
9.	Accepting things and turning them around to my advantage				
10.	Denying that any problem exists				
11.	Generating pleasant fantasies				
12.	Affirmation of worth				
13.	Getting tangible aid (e.g money)				
14.	Discuss with my friends				
15.	Regular exercises and a healthy life style				
16.	Having enough sleep				
17.	Reviewing your life from time to time				
18.	Awareness of what can go wrong				
19.	Seek medical attention				
20.	Listening to music				
21.	Resort to prayer				
22.	Withdrawn and aggressive				
23.	Assertive confrontation				
24.	Modify habits of thoughts that trigger problem				
25.	Talk to myself				

Please ensure that you have responded to the items

Thank you for participating.

APPENDIX V

STUDENTS ACADEMIC ACHIEVEMENT

STUDENTS EXAMINATION RESULTS (MEAN SCORES)

S/N	UNIVERSITY	MEAN SCORE
1.	FUTO	49.33
2.	IMSU	43.42
3.	ABU	58.24
4.	KASU	43.11

Appendix VI: SPSS Results on Hypotheses Tested

Frequencies

Statistics

		school	gender	Facs	depts	courses	levels	types	location
N	Valid	318	318	318	318	318	318	318	318
	Missing	0	0	0	0	0	0	0	0

Frequency Table

School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ABU	84	26.4	26.4	26.4
	FUTO	79	24.8	24.8	51.3
	IMSU	85	26.7	26.7	78.0
	KASU	70	22.0	22.0	100.0
	Total	318	100.0	100.0	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	153	48.1	48.1	48.1
	Female	165	51.9	51.9	100.0
	Total	318	100.0	100.0	

types

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Federal	163	51.3	51.3	51.3
	State	155	48.7	48.7	100.0
	Total	318	100.0	100.0	

location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Imo	164	51.6	51.6	51.6
	Kaduna	154	48.4	48.4	100.0
	Total	318	100.0	100.0	

Frequency Table

school

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ABU	84	26.4	26.4	26.4
	FUTO	79	24.8	24.8	51.3
	IMSU	85	26.7	26.7	78.0
	KASU	70	22.0	22.0	100.0
	Total	318	100.0	100.0	

gender

	Frequency	Percent	Valid Percent	Cumulative Percent

	male	153	48.1	48.1	48.1
Valid	Female	165	51.9	51.9	100.0
	Total	318	100.0	100.0	

types

		Frequency	Percent	Valid Percent	Cumulative Percent
	Federal	163	51.3	51.3	51.3
Valid	State	155	48.7	48.7	100.0
	Total	318	100.0	100.0	

location

		Frequency	Percent	Valid Percent	Cumulative Percent
	Imo	164	51.6	51.6	51.6
Valid	Kaduna	154	48.4	48.4	100.0
	Total	318	100.0	100.0	

Hyp1

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
STRESS	138.8720	6.10657	164

Acad_ Achievement	2.4451	.58878	164

Correlations

		STRESSES	Acad_Achievement
STRESS	Pearson Correlation	1	-.850**
	Sig. (2-tailed)		.000
	N	164	164
Acad_Achievement	Pearson Correlation	-.850**	1
	Sig. (2-tailed)	.000	
	N	164	164

**. Correlation is significant at the 0.01 level (2-tailed).

Hp2

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
STRESS	138.5779	5.75511	154
Acad_Achievement	2.5286	.60593	154

Correlations

		STRESSES	Acad_Achievement
STRESS	Pearson Correlation	1	-.785**
	Sig. (2-tailed)		.000
	N	154	154
Acad_Achievement	Pearson Correlation	-.785**	1
	Sig. (2-tailed)	.000	
	N	154	154

**. Correlation is significant at the 0.01 level (2-tailed).

Hyp3

Descriptive Statistics

	Mean	Std. Deviation	N
COPING_STRATEGY	63.7012	2.60999	164
Acad_ Achievement	2.3726	.26314	164

Correlations

		COPING_STRATEGY	Acad_ Achievement
COPING_STRATEGY	Pearson Correlation	1	.951**
	Sig. (2-tailed)		.000
	N	164	164
Acad_Achievement	Pearson Correlation	.951**	1
	Sig. (2-tailed)	.000	
	N	164	164

**. Correlation is significant at the 0.01 level (2-tailed).

Hyp4

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
COPING_STRATEGY	63.8377	2.47727	154
Acad_Achievement	2.3805	.25923	154

Correlations

		COPING_STRATEGY	Acad_Achievement
COPING_STRATEGY	Pearson Correlation	1	.893**
	Sig. (2-tailed)		.000
	N	154	154
Acad_Achievement	Pearson Correlation	.893**	1
	Sig. (2-tailed)	.000	
	N	154	154

**. Correlation is significant at the 0.01 level (2-tailed).

Hyp5

T-Test

Group Statistics

	Location	N	Mean	Std. Deviation	Std. Error Mean
STRESS	Imo	164	139.8521	6.12201	.46763
	Kaduna	154	139.3728	5.64396	.45134

Hyp6

T-Test

Group Statistics

	Types	N	Mean	Std. Deviation	Std. Error Mean
STRESS	Federal	163	138.9632	6.11201	.47873
	State	155	138.4839	5.74496	.46145
	Federal	163	3.6233	.60242	.04719
	State	155	2.4458	.59196	.04755

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference

									Lower	Upper
STRESS	Equal variances assumed	.262	.609	.720	316	.472	.47932	.66596	-.83095	1.78959
	Equal variances not assumed			.721	315.959	.472	.47932	.66492	-.82891	1.78754
Acad_Achievement	Equal variances assumed	.235	.628	1.98	316	.044	1.1775	.06702	-.05435	.20936
	Equal variances not assumed			1.157	315.657	.044	1.1775	.06699	-.05429	.20930

Hyp7

T-Test

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
COPING_STRATEGY	male	153	64.5882	2.08860	.16885
	Female	165	63.0061	2.69258	.20962

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
COPING_STRATEGY	Equal variances assumed	18.334	.000	5.823	316	.000	1.58217	.27171	1.04758	2.11677
	Equal variances not assumed			5.878	306.600	.000	1.58217	.26917	1.05253	2.11182