CAUSES, EFFECTS AND MANAGEMENT OF STRESS AND ANXIETY AMONG AHMADU BELLO UNIVERSTY, ZARIA UNDERGRADUATES

M.ED THESIS

BY

SORUNKE, ADELINE MOJISOLA (MRS)

DECLARATION

I hereby declare that this thesis has been written by me. It is a true record of my research work and, it has not been presented in any previous application for a higher degree or as a published work.

In the course of writing this thesis, references were made to various sources of information. These were fully acknowledged by means of references.

SONUNKE, ADELINE MOJISOLA (MRS).

C E R T I F I C A T I O N

This thesis titled "CAUSES, EFFECTS AND MANAGEMENT OF STRESS AND ANXIETY AMONG AHMADU BELLO UNIVERSITY, UNDERGRADUATE" by Sorunke, Adeline Mojisola (MRS) meets the regulations governing the award of the degree of Masters of Education (M.Ed) in Guidance and Counselling of Ahmadu Bello University, Zaria, and it is approved for its contributions to knowledge and literary presentation.

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D E D I C A T I O N

DEDICATED

to

The young ones

and

The Adolescents

Who I pray should always submit

Themselves for guidance.

All good people who have

influenced my life positively

to date.

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ABSTRACT

This study was designed to find out the causes, effects and management of stress and anxiety among the undergraduate students of A.B.U., Zaria. Sources of stress and anxiety are issues that are intricately related to university life because of its peculiar nature and these may have serious consequences on the lives of undergraduate students.

Three faculties have been used as samples in the study. From these faculties 347 and 210 students and academic staff have been used respectively as subjects.

Two sets of validated questionnaire were used to gather the data analysed for the study. Four pairs of hypotheses were formulated on the causes, degree of seriousness (the rating of causes, the effects and the coping strategies. The focus of the hypotheses was to identify gender differentials among students and academic staff.

The main statistical tool applied for testing the hypotheses was the t-test. It was found out that the students and the academic staff did not differ significantly except on the hypotheses which states that "There will be no significant difference between the male and female students as to the preferred coping strategies when they are under stress and anxiety", It was found that the t-value of -3.00 is greater than the critical value of ± 1.96 at p 0.05 hence the hypothesis was rejected.

The results of the, study can be summarised as follows.

(i) The students and academic staff of Ahmadu Bello University, Zaria could identify the causes of stress and anxiety among the undergraduate students,

(ii) They rated the degree of seriousness of the identified causes as either extremely serious or serious,

(iii) They agreed that students experience various effects of stress and anxiety,

(iv) The preferred coping strategies in the events of stress and anxiety were also identified by the students and academic staff.

Based on the findings therefore, the researcher made the following recommendations.

jt is recommended that the university should have functional counselling units, at least one in each faculty which should be well Staffed with professional counsellors. Such counselling units should develop appropriate seminar/Workshop materials on the causes, effects and management of stress and anxiety. Such counselling units should also hold regular workshops for and with university officials who usually have the first contact with the students on arrival on the campus. The university counselling units can also develop some counselling written materials on "negative" coping strategies such as Indect coping strategies like smoking, drinking, prostituting and use of drugs to highlight the ineffectiveness of such strategies and such materials should be made available for students' reading during orientation and counselling sessions.

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LIST OF ABBREVIATIONS

Abbreviations		Page
A.B.U.	Ahmadu Bello University	7
S.G.R.S.	School of General and Remedial Studies	41

DEFINITION OF TERMS

1. Stress and Anxiety. Are referred to as twin terms and they are used to describe a situation perceived as dangerous or threatening (Tkeotuonye and Rashmir (1989) Spielberger (1979) also stated that stress and anxiety are interwoven with one leading to the other and that both of them refer to situations and experiences that directly affect peoples lives. They therefore deal with abnormalities of the personality usually not based on disease, but on the individual's unfavourable adjustment to life.

2. Stressor. The term stressor refers to the factor that causes stress or the cause of a stress provoking situation. e.g. the sight of a snake.

3. General Adaptation Syndrome (GAS): This is Hans Selye's (1976) theory on stress. In this theory, it is explained that every stressful situation causes the body to mobilize its organs to produce extra energy and strong emotions to ward off stress each time it experiences one.

4. Shift in equilibrium; Change in balance.

5. psychosomatic disorders also referred to as psychosomatic illnesses are diseases having emotional origin. Examples of such diseases are asthma, ulcers, hyperthension, headaches, strokes, heartattack and so on (Wilkening, 1973; Coon, 1982) in (Iwuji, 1990).

6. Anti social behaviour refers to a mode of self comportment that is opposed to the good of the society.

7. psychological feeling: Feeling of fraustration.

Chapter I

1.0 THE PROBLEM

1.1 Introduction

The daily life of a human being is filled with a wide range of activities broadly made up of thinking and doing . These activities take place between people as individuals or as groups. Consequently, behavioural patterns often emerge to deal with each form of interaction. In many cases, the emergent behaviours to given situations are normal while in some instances they appear abnormal.

Hilgard (1971) in writing on "Behaviour Disorders" states that all people are occasionally placed under conditions of stress and conflict that cause them to experience strong feelings of anxiety. According to him, some of us by virtue of our biological make-up, the techniques we have developed to handle conflict and the amount of support provided by our environment are better able to withstand stress than others. We, however, confirmed that there is no such thing as an 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.

Youth, of course, are often thought of as being carefree and boyant but the teacher who has worked with a troubled child - one wracked by fears and doubts - knows all too well that even children are not always happy. Infact, Ikeotuonye and Bashmir (1989) remarked that stress and anxiety are tied to everyday living and that there is no question of being free from them whether one is a child, an adult or an aged person.

Stress and anxiety are intricately interwoven as human experiences. Whenever there is a sustained period of anxiety, stress usually follows in its wake. This is so because anxiety puts one's mind under strain and psychological pressure and until the source of anxiety is removed, the stress persists. Thus, stress and anxiety are twins-terms.

Stress and anxiety as stated earlier are part of human life. The university environment comprises people who are living and are expected to be experiencing stress and anxiety. Some of the undergraduate students are adolescents and as stated by Ikeotuonye (1983), the adolescence is generally accepted by psychologists as one of storm and stress. A typical university community may fit into one or a number of the following descriptions:

i) It is a place of high intellectual activity.

ii) The community is relatively free and democratic.

iii) Individuals enjoy some measure of independence.

iv) It is a place of faster academic work.

v) It is a meeting point for students of all the socio-economic, socio-cultural, political and religious backgrounds.

vi) It is a highly heterogeneous community in terms of ideas, psychological dispositions, philosophical view point and social life style.

vii) There can be a wide range of interpersonal relationships; from intimate to distant.

viii) It is probably the first location where some youths are left completely on their own for the first time.

In the light of some of the characteristics listed above, a student coming into the university for the first time is not likely to be completely used to it. Some of the features of the university life will be conducive to his personality, some others will constitute sources of problems like stress and anxiety.

Moreover, life in the university and other tertiary institutions is seen as an intermediate stage between.

i) School life and work life.

ii) youthful life and adult life.

iii) Dreamer's life and realist's life.

It is then necessary that students be helped by identifying the causes of their anxiety and stress, the effects they have on them and the management strategies. Having identified the strategies for the management of stress and anxiety, such could be brought to their attention and possibly they can be trained in them.

1.2 Statement of the problem

The sources of stress and anxiety as highlighted by Ikeotuonye and Nashmir (1989) are issues that are intricately related to university life; thus, a student can hardly go through the university without giving some thought or attention to some if not all of them. In some cases, students are not capable of knowing what their problems are. It is part of the focus of this study to identify the causes and effects of stress and anxiety among selected university undergraduates. The study will also suggest management strategies.

In the administration of various programmes in the university, some key senior officers are often involved. These include the academic staff (i.e. Lecturers), Student Affairs personnel, Hall Wardens, personnel in Academic Office and so on. These officers are often involved in the identification and resolution of students' problems. The students and these staff do not exist in isolation of each other. There are various degrees of interaction between them. In the light of this relationship, certain questions are raised in relation to stress and anxiety.

1.3 Research Questions

1) What are the students' and academic staff's perception of the causes of stress and anxiety among Ahmadu Bello University undergraduates?

2) What level of seriousness will the students and staff attach to the perceived causes of stress and anxiety?

3) Are there some perceived effects of stress and anxiety on Ahmadu Bello University undergraduates?

4a) Which coping strategies are most preferred by students under stress and anxiety?

4b) Which coping strategies will the academic staff recommend for Ahmadu Bello University undergraduates who are under stress and anxiety?

In order to facilitate responses to the above stated questions, appropriate instruments were designed and students and staff members were expected to react to the questions that relate to the causes, effects and preferred methods of handling stress and anxiety by the university undergraduates.

1.4 Delimitation of the Study

It is already argued that students' encounter with the various components of university life is bound to bring about some disturbing effects in the emotional, social and psychological make up of the students. The shift in equilibrium will bring about effects such as stress and anxiety. In studying the causes, effects and management of stress and anxiety among undergraduates, the investigation has the following delimitations:

a) The sample is limited to a sample of the population of second, third and final year undergraduate students of Ahmadu Bello University, Zaria, on the main campus. The first year students (i.e. 100 level) are excluded from the sample because they will be new in the environment. The post-graduate students are also excluded because they had passed through the university system once and many of them must have developed some positive or negative coping strategies of their own.

b) Students in the 200 - 600 level are being considered for coverage because, being in the adolescent stage of development, their developmental needs according to Durojaiye (1976) as reported by Okon (1984) include learning to attain adult status by vocational plans, by family relations, by social relations and by good citizenship - a study of this nature will help them to make the necessary adjustments. Also, some of the undergraduates are unable to use their time effectively. This coupled with the other pressures and problems

relating to their personal lives, social relations and academic progress which are capable of generating stress and anxiety and the need to focus attention on the causes, effects and coping methods have spurred the researcher to concentrate on students at these levels.

1.5 The objectives of the study

This study is set out to achive the following objectives.

i) Identification of the causes and effects of stress and anxiety among Ahmadu Bello University undergraduates.

ii) Identification of university academic staff's perception of stress and anxiety among the undergraduate students.

iii) To obtain students' and staff's ratings of the level of seriousness of identified causes of stress and anxiety.

iv) To identify any perceived effects of stress and anxiety among the undergraduate students.

v) To identify most preferred coping strategies for students under stress and anxiety.

1.6 Assumptions

Stress and anxiety are linked together. Individuals possibly vary with respect to causes and effects of stress and anxiety.

1. It is assumed that older people are probably exposed to more experiences and should be able to cope better than younger students.

2. It is also assumed that women, being more resilient should cope better than men.

1.7 Hypotheses

1(a) There is no significant difference between the male and female students as to their perception of the causes of stress and anxiety.

(b) There is no significant difference between the male and female academic staff as to their perception of the causes of stress and anxiety among Ahmadu Bello University undergraduates.

2(a) There is no significant difference between the male and female students in their ratings of the level of seriousness of stress and anxiety on Ahmadu Bello University undergraduates.

(b) There is no significant difference between the male and female academic staff in their ratings of the level of seriousness of stress and anxiety on Ahmadu Bello University undergraduates.

3(a) There is no significant difference between the male and female students with respect to their perception of the effects of stress and anxiety on Ahmadu Bello University undergraduates.

(b) There is no significant different between the male and female academic staff in their perception of the effects of stress and anxiety on Ahmadu Bello University undergraduates.

4(a) There will be no significant difference between the male and female students as to the preferred coping strategies when they are under stress and anxiety.

(b) There will be no significant difference between the male and female academic staff in their perception of recommended coping strategies for Ahmadu Bello University undergraduates under stress and anxiety.

1.8 Significance of the study

The university is an important 'Transit Camp' in the lives of youths. It is not only a seat of academic pursuit but it is also 'a school of life' where youths are exposed to certain realities of life and experiences possibly for the first time.

In the course of university education, an undergraduate will go through some "ups and downs" which inevitably will lead to stress and anxiety. Iwuji (1990) asserts that stress is part of life and necessary for survival and self actualization. Factual as this may be, many researchers have stressed the adverse effect of stress and anxiety on human personality in general and on learning in particular. Stress and anxiety must therefore be controlled so that the concerned subjects do not break under them.

The knowledge about a particular problem helps in finding solutions to it hence the parents, lecturers, university administrators particularly the student affairs office and counselling centre, the counsellors and the students need to acquire the knowledge about the causes and effects of stress and anxiety on students so that they may be able to develop appropriate management skills in resolving stress and anxiety related problems.

In the light of this consideration, this investigation is focused on the causes, effects and management of stress and anxiety among Ahmadu Bello University undergraduates.

It is expected that this study will be different from other studies done on stress and anxiety for the following reasons:

a) Responses will be taken from both the students and the staff on the causes, effects and coping strategies of stress and anxiety.

b) both parties will be expected to identify the causes, rate and the effects and state the preferred coping strategies of stress and anxiety.

Chapter 2

2.0 REVIEW OF RELATED LITERATURE

2.1 Introduction

Many renowned educationlists have given various opinions about stress and anxiety, how they are related, their causes, effects and how they can be managed. In this chapter an attempt shall be made to examine some of such writings.

Ikeotuonye and Rashmir (1989) affirmed that stress and anxiety are twin terms and have used the two terms to describe a situation perceived as dangerous or threatening. They gave the example of a situation of impending examination and the accompanying emotional state of fear, worry, nervousness and tension as stress and anxiety. That is, a stressful state generates anxiety.

Hilgard (1971), a famous psychologist stated that most of us have experienced feelings of anxiety and tension in the face of threatening or stressful situations. These feelings he contended are normal reactions to stress and are considered to be neurotic only when they become habitual ways of responding to situations that most people can handle with little difficulty. He described anxiety neurotic as a person who has strong feelings of inadequacy and inferiority yet at the same time maintains unrealistically high standards of achievement and feels guilty when he fails to live up to them. It is reported that no matter how successful such a person may be he cannot relax. He still feels apprehensive about his ability to meet the demands of the future and any sudden happening in his life situation may precipitate stress and anxiety attack.

Spielberger (1979) infact differed from Selye. He felt that stress refers both to circumstances that place physical or psychological demands on an individual and to the emotional reactions experienced in these situations.

In his own definition of stress, Kaplan (1963) in Nkoli et al (1987) affirmed that the term stress, strain and tension have been borrowed from the physical sciences to describe the psychological pressure that affect people. The difficulties encountered in life to him are referred to as stress, the resultant feelings, emotions and actions of the individual and the strains and tensions are considered to be a state of body mobilization in response to stress. He stated further that physiological stress is a force that can be understood readily since it has an evident effect on the function of the body.

Iwuji (1990) has however described stress as the invisible and silent killer. She explained this by saying that the danger of unresolved stress is that in a situation where it leads to an illness, such illness would be only a symptom of the real "disease" which is stress. She therefore said that the treatment of an illness resulting from stress may mean treatment of symptoms and that unless the source is removed the symptom may persist or reoccur. It is quite evident from these definitions that different situations generate different stressfull states and that stress poses threat to human existence.

Anxiety on the other hand as defined by the dictionary is described as fear, especially as caused by

uncertainty about something. The state of being anxious: (a state of chronic apprehension as a system of mental disorder).

Leighteon (1946) defined anxiety as a vague worry, the source of which is not clearly understood, which has a tendency to be "free floating" and seems excessive to an outside observer. Because anxiety seems excessive, he opined that it may be necessary to have a belief that retionalizes it, that is often far from the real cause. He has identified three types of anxiety. They are: normal acute and chronic high anxieties. The normal anxiety which occurs to most people sometimes is called worry while acute anxiety is panic and chronic high anxiety according to him is characteristic of neurosis.

Sorenson (1964) and Harlot (1972) seemed to have expressed a similar definition for anxiety. While the former defined it as a generalised feeling of apprehension of discontent and of distress, the later too referred to it as a feeling of apprehensiveness, painful worry or uneasiness. To Lerine (1966) however, it is a reaction to the expectation of danger which involves the possibility of being hurt either physically or psychologically. Anxiety therefore is simply seen as a response to threat or feelings of threat.

Another opinion of anxiety is that given by Bryant et al (1964). They described anxiety as a condition of mental uneasiness arising from fear, solitude and apprehension. Any situation which threatens the well being of an

organism is referred to as "anxiety producing state". This is why anxiety is perceived as a realistic response to perceived danger in an environment.

In the opinion of Freud (1948) however, anxiety is 'something felt' - a specific unpleasant emotional state or condition of the human organism. In putting it broadly that anxiety states are all that is covered by the word 'nervousness' which include experimental, physiological and behavioural components, Freud affirmed that anxiety state can be distinguished from other unpleasant emotions such as anger, sorrow, fear and grief by their unique combination of experimental, physiological and behavioural manifestations.

The physical manifestation of responses to psychological pressures is anxiety since it is only natural that when one is under psychological/emotional/physical pressure (i.e. stress). the physical person must exhibit some manifest behaviour (anxiety) - it follows that stress and anxiety go together.

From the various definitions of stress and anxiety therefore, it is clear that both deal with abnormalities of the personality usually not based on disease as such but on the individual's unfavourable adjustment to life. They become seriously distressed because of problems in their environment for which they could not find adequate solution. For a person who has found life to be so disappointing, experiences of stress and anxiety may become exaggarated to the extent of the individual attempting bodily harm to himself.

This is where the services of a guidance counsellor becomes inevitable because such individual may respond favourably to the kindness and sympathy of some people whom he feels he can trust. It is such a person who may be able to bring about improvement as he tactfully persuades the affected to accept reasonable interpretation of his circumstances.

Successful treatment of stress and anxiety therefore consists of sympathetic relationships in most cases. Other treatments of stress and anxiety according to medical opinions include or consist of removing the cause of the problem if such removal is possible.

2.3 Sources of Stress

If we go by the views expressed by the various educationists on the relationship of stress and anxiety, it will become clearer that so many situations occur in our lives that lead to stress and anxiety.

It should however be stated that some of the causes to be highlighted may not constitute stress and anxiety to others as it has been noted by Ikeotuonye and Nashmir (1989) and others that the degree of stress (and anxiety) experienced as a result of an event differs from person to person depending on one's perception and interpretation of the event.

Girdano et al (1979) has grouped the causes of stress under three broad categories. They are:

i) psychological

ii) bioecological and

iii) personality causes of stress.

2.3.1 psychosocial Causes

They asserted that each of them is capable of inducing the stress response in many human beings. They also labelled them as stressors. Accoring to them, the psychosocial stressors originate as a result of a complex interaction that exists between socialization and perception. The list of psychosocial causes connected to stress given by Girdano et al includes adaptation, frustration, overload and deprivation.

2.3.2 Bioecological Causes

The bioecological stressor has been referred to as stimuli arising out of our relationship with our environment that produce a stressor response in most individuals through an innate biological mechanism. The stimuli which are biologically relevant and which may play a role in distress as given by the source are; the biological rhythms, the nutritional habits and noise polution.

2.3.3 personality Causes

The third category stressor according to Girdano et al (1979) is personality. They said personality may be thought of as the summation of the characteristics, attitudes, values and behavioural patterns that individuals manifest in interacting with their environment. To them, no discussion of stress would be complete without some mention of the elusive and complex construct of personality - that is, what we think of ourselves and the way we behave and react to issues and situations.

Iwuji (1990) seemed to be in support of Giridano et al by affirming in her article, "Stress and Modern Living" that "every organism or living thing (both plant and animal) has numerous sources of stress in its environment". She went on to say that man has unlimited sources of stress in both his internal and external environments which even include each of his five senses which are stress provoking. Man's stressors according to her could be physical such as a feeling of frustration. It could also be internal like an attack of a virus or external like a loud noise or a strong offensive odour.

Selmon (1924) 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.

Hilgard (1971) has expressed the view that when conditions place the organism under great strain, the homeostatic mechanisms 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 own article has described stress as being part of life and that living is a continuous battle with stress. She affirmed 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. Research studies as stated by her have shown that almost every critical event of our life such as marriage, death of a spouse, change in financial position or ceremonial occasion such as Christmas carries with it certain amount of stress. It is further explained that since there is a limit to every person's store of nervous and physical energy, the supply could be used up prematurely by unduly anticipating future difficulties and fretting unnecessarily over past failures. It is reported that when the reserve is exhausted the affected person is left tired our long before the day's work is done.

Iwuji's view tallies with Hilgard's (1971) who also stated that conditions of modern life place some people under stress for long periods of time and that the physiological changes that occur when the body tries to adapt to stress may lead to "diseases of adaptation". He further pointed out that psychosomatic disorders in which psychological stress manifests in form of worry or anxiety may produce tension states resulting in such conditions as ulcers or high blood pressure.

Selye's theory in Iwuji (1990) indicated that every stressful situation call up a pattern of reactions known as "General Adaptation Syndrome" (GAS). According to the findings, when the body is stressed, its first reaction is that of an alarm during which it mobilizes all its organs (namely the brain, the liver, the lungs, the heart and so on) to prepare it to respond to its stressor. The alerted organs then work at increased rates to produce extra energy for the body to fight the stressor or flee from it. The report also indicates that the activities of the organs of the body at the alarm stage usually work up strong emotions such as anger, fear, anxiety or lust depending on the nature of the stress.

Leighton (1946) seemed to have earlier extended the scope of stress by saying that during times of stress, a whole community becomes "a prey to vicious and vivid fears". To him, stress also causes misinterpretation of ordinary events. No wonder why Iwuji (1990) stated that living seems synonymous with stress and that man needs a reasonable amount of stress to survive and actualize himself in his environment. For instance, it is reported that optimum stress levels can improve concentration, prolong endurance, build strength and reduce errors. Infact, Napoli, Kilbride and Tebbs (1982) as reported in Iwuji's article argued that man at birth is an unfinished creature and has the burden of completing himself during his life time through response and adjustment to strains

and stress of living.

2.4 Sources of Anxiety

Shryock et al (1980) stated that illness is not the only circumstance that drains a person's store of vitality and narrows his capacity for abundant living. In other words, they affirmed that illness can cause anxiety and that any factor which draws heavily on one's vital energies has the same effect. The list of such factors they contended includes indiscretions, and dissipations such as over-eating, being deprived of sufficient sleep, the use of intoxicants, recourse to stimulants, sexual excesses or the practice of other devitalizing habits. Emotional excesses according to them do the same. persons haunted by fear or worry for example are said to waste valuable energy which they should conserve and a troubled conscience according to the source, drains the sufferer's reservoir of vital force making him less able to resist diseases. Stress and anxiety being identical in nature are emotional excesses that affect the victim physically, psychologically and emotionally.

Giving his own view of anxiety, Mills (1951) opined that anxiety does not just come from life but is manufactured by systems. A similar school of thought also stated that anxiety and fear come either from life or from the social system. Social system for instance permits job insecurity which according to Iwuji (1990) is a source of anxiety. The modern worker for instance is said to be in a state of constant fear and anxiety for his future.

Contributing to the identification of sources of anxiety, Klapp (1972) affirmed that the world suffered excessive fear and anxiety from many sources - some obvious, some not so obvious. He explained that developing countries suffered the break up of traditional cultures and authority systems as well as outright threats such as starvation. Modern countries he continued suffered insecurities that were focused more on demands and expectations than the mere business of keeping alive. In concluding he said that international tension and threat of aggression which hang over all are sources of anxiety to the citizens of such countries.

Tobias (1979) wrote on text-anxiety and defined it as anxiety aroused in evaluation situations especially by the variety of tests administered in most educational institutions. He went on to identify the three possible points where anxiety can exert a lot of effect on instruction as:

i) the point of processing

ii) during processing

iii) after processing and just before output.

During processing according to him, anxiety affects learning by interferring in the degree to which external stimulation has been internally represented or registered. In continuation, Tobias said that less anxious students generally perform better than anxious ones . who devote more of their attention to task demands and less concern to task that are relevant. He also established that the difficulty of the task, reliance on memory and organization

of the task can arouse anxiety which will affect the cognitive operations of the processing stage and thereby hinder learning.

Spielberger (1966) infact stated that anxiety may mean the expectation of harm rather than obvious external threats while Ikeotuonye and Bashmir (1989) stated that when a stressor is in operation the inevitable result is anxiety, that is, an emotional state of fear, nervousness worry and tension. According to them one has led to the other. They also identified the following as causes of stress and anxiety in the university. They are:

i) physical and health
ii) Financial
iii) Social
iv) Sexual
v) psychological
vi) Religion
vii) Family
viii) Academic
ix) Vocational and Future
x) Environment

Viewing earlier in the same line with Ikeotuonye and Bashmir's (1989) assertion, Hilgard (1971) said that any sudden stress in life situation may precipitate an acute anxiety attack. Other factors that may lead to an acute anxiety attack according to Hilgard (1971) include the following: the threatening loss of professional or social goals, the loss of parents or other persons upon whom one feels dependent and the threatening break through of unacceptable and dangerous impulses.

2.5 Types of Anxiety

Two types of anxiety have been identified by May (1967) who called them neurotic and normal constricting. Neurotic anxiety he argued prevents people from realizing their full potentials, from enjoying life to the fullest and from recognizing personal worth. It causes the sufferer to become less human and to be apathetic. The normal anxiety which he said results from recognizing and accepting the complexities of life, enables people to accomplish what they want. This type of anxiety according to the author helps meet threatening situations. Instead of being constricting, it is said to be expanding and instead of desensitizing a person it enables one to see the real world, to make decisions and to commit oneself to a way of life.

Hilgard's (1971) grouping of anxiety differs from the above mentioned, he grouped anxiety into "free-floating" and the "bound anxieties". While the "free-floating" anxiety is not associated with a particular stimulus or object but occurs in a wide variety of situations, the "bound" anxiety is evoked by specific situations like speaking before a group or going out on a blind date. In his opinion, bound anxiety is less incapacitating than free floating anxiety but it sometimes can be troublesome enough to be classed as neurotic. He however concluded that most anxiety reactions lie between the very diffuse free-floating anxiety and highly specific fears.

Nevili (1977) was of the opinion that anxiety is a necessary and important condition in life which should not be avoided. Proverman (1970), seemed to have agreed with Nevili by saying, "Anxiety is the dissiness of freedom". According to him, to dare, to challenge, to live is anxiety-provoking but that not to venture is to lose one's essential humanness, to lose the capacity to act, to relate, to become enraptured, to lose the chance to become complete individuals by embracing all of life with all its complexities.

Anxieties are also connected with the alienation and loneliness of life in a mass society. This assertion was made by Leighton (1946) who identified status anxiety as a prominent characteristic of a modern society.

2.6 Effects of Stress and Anxiety

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

Hans Selye according to Iwuji (1990) has observed that even though the number and types of stressors to human body are numerous and varied, the body tends to react in a unitary way to each stressful situation.

Selmon (1924), a medical practitioner has traced the symptom for stressful feeling gradually from the time the sufferers concentrate on some small aches until they can think of nothing else. He contended that the more they dwell on the aches, the more serious the condition becomes until they begin to complain of a headache that is throbbing from the back of the head through to the front. The problem according to him sometimes radiates into the back of the neck, the stomach, digestion becomes upset and causes loss of appetite. The bowels are said to be constipated and the nerves become raw and taut. Usually on thorough examination the doctor is reported to find everything organically normal. When it happens like that, the nervous system is said to have been over worked because of a score of everyday worries that eventually sap the ritality of the nerves until they are unable to behave normally. In order to cope with weariness brought about by the stressful reaction, Selmon (1924) explained that some resort to taking coffee and a few, cigarettes thereby going more wearily on their way. The result of this restless overloading of the nervous systems is that such people are never happy with themselves nor life generally. They are reported to be easily issitated with those around them, with close friend "getting on their nerves".

Noises he further explained bother them and they begin to dislike their work and cannot stand the pressure.

Infact, Iwuji (1990) who noted that there is an association between the amount of stress a body cumulates at a given period of time and a probability of mental or physical breakdown and also stated that the prolonged unresolved stress is associated with psychosomatic illness. These according to her are illnesses that are precipitated by emotional arousal, which include asthma, ulcers, hypertension, headaches, strokes, heart-attack, etc. She also reported (Wilkening 1973; Coon 1982) Napoli et al 1982) as arguing that prolonged unresolved stress could result in a mental illness.

Shryock et al (1980) who referred to anxiety reaction as emotional illness said that there are attacks of an unsettled state of mind characterised by apprehension, nervous tension, physical and mental fatigue and panic. Anxiety has also been linked with such reactions as the phobic reaction and phobias has been explained as representing a carry-over of some unresolved conflict and the individual concerned manifests an unreasonable, unjustified anxiety regarding some particular situations.

Sorenson (1964) stated that emotion-laden behaviour often occurs as a response to anxiety which is aroused by fears and conflicts and their attendant worries that grow out of actual or foreseen frustrations of efforts to satisfy our needs, exercise our drives or fulfil our motives.

He stated further that if the situation does not improve anxiety emerges in form of a state of mind characterized by tension and fear and worry sometimes over specific or generalized objects. Sorenson has given the underlisted items selected from the 12 questions on the children's form of the "Taylor Manifest Anxiety Scale" as being accurate though incomplete list of some symptoms of childhood anxiety.

It is hard for me to keep my mind on anything.

I get nervous when someone watches me work.

I feel I have to be best in everything.

Others seem to do everything easier than I can.

I have trouble making up my mind.

I get angry easily.

I have to go to the toilet more than most people.

My feelings get hurt easily.

I worry about doing the right things.

I am afraid of the dark.

It is hard for me to keep my mind on my school work.

The effects of anxiety and stress as given by Hilgard (1971) are similar to those already cited. According to him, in anxiety reactions, the typical anxiety neurotic lives each day with a level of tension much greater than that of a normal individual. The chronic state of apprehension he explained is often punctuated by acute anxiety attacks that may occur as often as several times a day or as infrequently as once a month. During the acute attacks, the

individual is said to have an overwhelming feeling that something dreadful is about to happen, the feeling according to the source is usually accompanied by such physiological symptoms as heart palpitation, rapid breathing, perspiration, muscular tension, faintness and nausea.

Stones (1966) has discussed the effect of anxiety in relation to the incubent's output. He identified excessive anxiety as one of the potent factors in backwardness. He maintained that homes which engender anxiety and insecurity will almost certainly be homes which provide the children with the minimum of stimulation. Anxiety caused by fear of the teacher or even by being in unusual circumstances such as in a strange room for an examination according to him, will tend to act as an inhibitor for a child's activity. He therefore warned that the teacher should ensure that any specific anxiety generated in connection with the solving of problems in children's learning should be overcome by letting the problem solving take place within a generally positively changed emotional situation.

Other opinions expressed on anxiety and its effect on instruction include those of Alaiyemola (1988) and others. She has observed that several independent studies conducted in a variety of school subject areas revealed negative correlations between anxiety and student achievement. Still talking in the same vein, Jegede and Okebukola (1987) said that it is important that anxiety be reduced to the bearest minimum if not entirely eliminated if teaching and learning are to be effective since according them, anxiety as a major psychological variable in

education has been shown to be a serious impediment to students' classroom functioning and achievement of important cognitive and effective outcomes.

Lastly, Okoluonye and Rahmirus (1989) list of the symptoms which could also be called effects of stress and anxiety are as reproduced below:

(1) Tension (2) Headache (3) Shifting aches and pains about your body (4) Feels hot and uneasy all over the body (5) Fear (6) Nervousness (7) Being upset (8) Loss of voice (9) In extreme cases bitterness in the mouth (10) Worry (11) Trembling (12) Change in heartbeat (13) Fast breathing (14) Shortness of breath (15) Dizziness (16) Restlessness (17) Muscles tics or twitches (18) Fatigue or general body tiredness (19) Boredom or mental tiredness (20) Increase in blood pressure (21)Dilation of pupils (22) Sleeplessness or restless sleep (23) Night mares (24) Being confused (25) Disturbing thoughts (26) Cold sweat, particularly in the palms (27) perspiration (28) Dryness in the throat and mouth (29) Aggressive behaviour (30) Intolerance (31) poor performance on problem-solving tasks.

From the review so far, it is evident that the effect of constant physical stress or anxiety can produce a range of distressing symptoms such as headache, muscles cramps or upset stomach. Constant physical stress or anxiety can also impair concentration and reduce reaction time with accidents becoming much more probable. Therefore, unresolved stress and anxiety can be dangerous to human health and inimical to human comfort.

2.7 Management of Stress and Anxiety

As many educationalists and psychologists as possible who expressed views on stress and anxiety have also suggested management strategies.

In her opinion, Iwuji (1990) felt that the first thing to do in coping with stress factors is to be conscious of the fact that there are a lot of stress factors in our environment and to view them positively. She explained that the amount of damage to our body by a particular stress depends to a great extent on our attitude towards it and how we perceive it. She cited the example of one who is retired unexpectedly and asked whether he sees it as a disgrace, a provocative incident or as a relief.

She continued by saying that if he sees it as a disgrace or provocative incident the body reacts accordingly. She affirmed that if he gets worked up about the incident he would be doing some damage to his bodily organs and that the best attitude would be to look for something good about it. For example, she felt he should see it as a good push to enable him put into practice all the plans he had been dreaming about but had no courage to resign from the service to pursue.

In addition to the aforesaid, Iwuji (1990) has identified two types of coping with stress, They are:

(a) direct coping and

(b) indirect coping.

2.7.1 Direct Coping

According to Iwuji (1990) is acting in order to alter the environment that is causing the stress. In the example of the retired person, she explained that the retired person tries to find another job or engages himself in a gainful employment.

2.7.2 Indirect Coping

She explained as acting on oneself in order to minimize the significance of the stress. For instance, the retired person may take to excessive drinking, smoking eating or use of drugs. Any of these according to her offers a temporary relief but does not solve the problem and if taken in excess or over a long period it causes additional stress for the body. Indirect coping with stress according to psychologists involves the use of "defence mechanism", most of which Iwuji felt amount to running away from reality or self deceit. They are also referred to as unconstructive type of coping.

Selmon (1924) has reported someone as saying that the only safety is in right thinking. Thinking too much of oneself according to the source is a common mistake made by people. Selmon further presented the following analysis about a stressful patient. He reported that the first violation of the laws of health was in becoming introspective, that is, brooding over his own aches and pains, his weaknesses and failures and magnifying them. He worried over every little pain and allowed one disturbance to lead to the other all contributing to general deterioration of health. He allowed his thought to centre on himself and related every experience of life to his own profit or loss.

He placed upon each minor problem what the author called a morbid interpretation until his outlook became clouded.

The question asked by Selmon then is, "What preventive measures can people take to avoid succumbing to life's stress and strain?" His suggestions included the following: That we must project our lives out to others since centering one's attention on self or living for self is dangerous. He explained further by saying that the most important single pointer to wholesome living is to live for others, to project one's thoughts and interests outwards, to the needs and interests of those around us. In his opinion, this crowds out dangerous and destructive self-centredness and elevates us above the petty annoyances of life and substitutes a challenging aim for an otherwise humdrum existence - that to live for others is the greatest priviledge and highest joy that can come to anyone. He pointed out that the great therapeutic value there is that when people are busy helping others they don't notice their own minor aches and pains.

Girdano et al (1979) in their own view felt that a major factor in the maintainance of health is the ability to live in harmony within society while keeping to a minimum the detrimental effects of one pervasive by product of modern society - excess stress and tension. According to them, we all possess the ability to reduce the stress around the prevent stress-related illnesses.

Horney (1945) as quoted by Alaiyemola (1988) suggested three strategies that can be used to reduce anxiety. They are:

(i) move against (control others, be aggressive

or

(ii) move away (aloof, detached) from

(iii) compliance (conformity, appeasement).

He went further to say that in daily behaviour, anxious persons will use combinations of these responses and may exhibit different methods in different situations.

However, Good (1973) earlier stated that anxiety is typically conceived of as a self-protection mechanism that surfaces in threatening situations and that young children are more likely to handle their anxiety by compliance or withdrawal while older students are likely to exhibit aggressive behaviour in the classroom. According to him, observation of high-anxious children's classroom behaviour provides some emperical support for Horney's (1945) view.

Good (1943) also - reported that Sarason and his colleagues (other psychologists) have been especially concerned about the effects of test anxiety and tried to develop an anxiety measure that identifies low and high-anxious individuals.

The report stated that Sarason's position which derived from psychoanalytic theory suggested that high test-anxious students feel that they must obtain high test scores to continue receiving the provisional approval of the teacher.

Tobias (1979) in suggesting management strategy implored teachers to be aware of test anxiety reducing programmes and adopt instructional strategies that will reduce anxiety interference and deemphasise competition.

Fraser et al (1983) who said that anxiety is a persive emotion experienced by students also stated that lower anxiety levels have been found among students whose teachers used more positive reinforcements and more direvtiveness and exhibited communicative supportive behaviours. He therefore implored teachers to use positive reinforcement and exhibit communicative supportive behaviours for effective teaching and learning.

While still discussing the problem of stress and strain of life, Selmon (1924) suggested other coping strategies for anxiety. He was of the opinion that when we have a problem we should face it with constructive thinking, starting by writing down the problem and then the possible solutions to the problem. This according to him can be followed by counting the cost of each solution and selecting the most promising one. Finally, he contended that we should make up our mind and notify those concerned what we propose to follow and shape all activities accordingly. In his own opinion, if by later on it is discovered that a better course might have been chosen, it is still far better to have made a decision and carried it out than to have welteved indefinitely in the bog of indecision. He felt that

you may change or modify your present thinking in the light of later experience but that you should have confidence in your decisions and do not go over them again, considering and reconsidering. Finally he said that after you have made up your mind you should reckon the matter as being settled.

Selmon also recognised that there are problems that virtually concern every living person over which he has no control whatever. Such problems in his opinion present themselves repeatedly and often result in frustration and despair. He recognized that at times no solution is at sight and there is no one to turn to for help. According to him, under such circumstances he must find support from some source outside oneself that is superior to oneself. He felt that unless the concerned does so, he may go to a state of nervous exhaustion inspite of all his earnest efforts to be brave, Selmon affirmed that it is in times of such extremity that many by turning to such source have found a miraculous solution not only to the immediate problem but to all life's perplexities. In the source he continued, they have discovered the underlying purpose of life, the answer to the question, "What are we here for?" The source, according to Selmon is God - Who, he said impacts to everyone who seeks comfort and enlightenment. He said God supplies power and strength which enable the troubled soul to fulfil life's true purpose.

In conclusion, Selmon said it is Him (i.e. God) he invites the reader to turn to for complete victory over difficulties for which human resources are so inadequate.

Shryock et al (1980) in suggesting management strategies felt that love is the magic factor which gives depth to one's life. - Love of God demonstrated by living with a clear conscience and love to man manifested in rendering service to humanity he affirmed, completes the electric circuit as it were, vitalizing all life's activities.

Still relying on spiritual solution for the management of stress and anxiety, Klapp (1972) said that the prime institution for reassurance in most societies is the Church. To him, the Church functions against primary anxiety induced by death, disease and other causes by prayer and propitiation. The Church according to him also functions to relieve secondary anxiety that he said results from breach of rites and traditions.

In his own view, Hilgard (1971) felt that in dealing with an anxiety neurotic, tranquilizers reduce anxiety and make otherwise disturbed persons more severe". He then suggested that a psychotherapist who takes an eclectic approach might first use tranquillisers and relaxation training to help reduce the patient's level of anxiety. A cient centred therapist on the other hand may according to Hilgard use educational techniques. For instance, he suggested that the therapist may provide information about sex and reproduction to help relieve the anxieties of an adolescent who has been badly misinformed and feels guilty regarding his sexual impulses.

Finally, Okeotuonye and Nashmir (1989) have suggested the following management strategies for stress and anxiety. They are:

1. Recognition of the symptoms which may include those listed at the end of 2.6.
2. Avoidance of the source of stress.
3. Reappraisal of sources of stress (if you cannot avoid the source).
4. Use of coping behaviours. These are further grouped as follows.

(a) Dangerous coping behaviours. These are further grouped as follows

(i) drinking (ii) smoking (iii) over-eating (iv) use of drugs (v) hyperactivity.

(b) Antisocial coping behaviours. They include:

(i) Withdrawal (ii) Quietness, (iii) Aggressive behaviour, for example, shouting.

(c) Strange coping behaviours. They are:

(i) Gum chewing (ii) Singing (iii) Drinking (iv) Dipping one's hand into water (v) Writing down the problem on paper and tearing it.

(d) Normal coping behaviours.

(i) Deep breathing.

(ii) Thinking of pleasant situations.

(iii) Crying.

(iv) Relaxation.

(v) Chatting with a trained helper.

2.8 Summary

Stress and anxiety are described as twin terms which relate to a dangerous or threatening situation. Stress causes anxiety and vice versa and both of them refer to situations and experiences that directly affect human life. In this review, it is emphasised that stress and anxiety form part of modern living and cause psychological, emotional and physical distress which affect living generally and learning in particular.

There are various sources of stress and anxiety. Some of the common sources include physical and health, financial, social, sexual, psychological, religious (moral), family, academic, vocational and future and environment. Each of these sources may produce stress and anxiety on its own or in conjunction with other factors.

University undergraduates as human beings are not precluded from experiencing stress and anxiety. Among this group, the sources are probably similar to those already listed. It has however been stated that the symptoms of stress and anxiety form a long list which includes tension, headaches, fear, nervousness, being upset, general body tiredness, being confused, aggressive behaviour and so on. These symtoms are observed to be prevalent among students.

Various methods of stress and anxiety management have been reviewed. Some of such management strategies are described as dangerous, antisocial and strange while some are normal and helpful.

If all known methods or strategies of managing anxiety fail, it is recommended that one should turn to God - Who imparts to everyone who seeks, comfort and enlightenment and also supplies power and strength to fulfil life's true purpose.

The review has enlightened the researcher with respect to causes, effects and possible management methods of stress and anxiety, hence, the available literature will be of value in resolving some of the questions raised in this study.

Chapter 3

3.0 DESIGN AND PROCEDURE

3.1 Introduction

This chapter discusses the methods and procedures employed in carrying out this study. The areas considered include students and staff's populations in the relevant faculties on the main campus of Ahmadu Bello University, Zaria. Also discussed are the samples from these populations. The instruments used and how they were administered, and the analysis of data are treated. The result of the pilot study conducted to ascertain the reliability of the set of questionnaire is also discussed.

3.2 The population

This study targetted the undergraduate students of the main campus of Ahmadu Bello University, Zaria. Consequently, the population considered relates to the students registered in the faculties on the main campus in the 1990/91 academic year. The eight faculties situated on the main campus of Ahmadu Bello University, Zaria are:

1. Faculty of Education.
2. Faculty of Agriculture.
3. Faculty of Arts and Social Sciences.
4. Faculty of Engineering.
5. Faculty of Medicine.
6. Faculty of Pharmaceutical Sciences.
7. Faculty of Science.
8. Faculty of Veterinary Sciences.

The population of the undergraduate students in the eight faculties is 6.392. (Summary of undergraduate students population on the main campus of Ahmadu Bello University 1989/90 session (Maisamari, 1990). Appendix III.

The population of all the students in the School of General and Remedial Studies (S.G.R.S.), diploma courses, and post graduate students is not considered because the study is limited to the undergraduate students of 200-600 level courses.

The study also required responses from the staff members on the main campus of Ahmadu Bello University, Zaria, who relate to the students on regular basis. All such academic staff members form part of the population sampled for this study.

The summary of the population of academic staff on the main campus of Ahmadu Bello University, Zaria for 1990/91 session is 880 as shown in appendix IV.

Only the academic staff was considered in this study for convenience of obtaining meaningful responses to the questionnaire.

3.3. Sampling procedure

3.3.1 Students

Students sample was taken from three of the eight faculties listed in Appendix III. The table below which was extracted from Maisamari (1990) shows the three faculties and the students population.

TABLE 1: Distribution of Male and Female Students in the Sampled Faculties

Undergraduate student population 1989/90

S/No.	Faculty	200 L M	200 L F	300 L M	300 L F	400 L M	400 L F	500 L M	500 L F	Total M	Total F	Grand Total
1.	Education	486	194	243	134	487	242	-	-	1216	570	1786
2.	Science	222	47	207	39	232	59	8	-	669	145	814
3.	Engineering	113	30	124	19	170	44	-	-	407	93	500
	Total	821	271	574	192	889	345	8	-	2292	808	3100

Ratio of Male Student population: Female Student population is 2292 : 808 or 3 males : 1 female.

The table above shows that there are 3100 students in the three faculties made up of 2292 male and 808 female students. This shows that there are approximately 3 male students to 1 female student in the population under study.

The three faculties from where the students' and staff's populations were drawn have been chosen from the eight faculties on the main campus using the stratified sampling procedure. In the opinion of the investigator, the three faculties also form a good representative for the following reasons:

(i) The faculty of Education admits students of wide range abilities with wide age differences. Also, many disciplines are accommodated within the faculty.

(ii) The Faculty of Science has a population of students in the pure science. This faculty has a large population of students representing the

various aspects of science. The faculty also renders services to students in the applied Sciences.

(iii) The Faculty of Engineering has students who represent the views of applied scientists and technologists.

The number of students sampled for this study is 341 from a population of 3100. This sample size is as recommended in a "Table for determining sample size from a given population" by Krejcie and Morgan (1970).

In all, 272 male students and 68 female students were sampled to reflect the ratio of the genders in the population (i.e. 3 males : 1 female).

The number of student respondents from each faculty was determined using proportionate procedure as follows:

TABLE 2: Number of Student Respondents From Each Faculty

S/No.	Faculty	Student Number	proportion Sampled
1.	Education	1786	196
2.	Science	814	90
3.	Engineering	500	55
	Total	3100	341

3. 3. 2 Staff

The population of the academic staff as shown in Table 3 is 433. The sample of staff is 205. - This is an acceptable proportion going by the statistical guidance

of Krejcie and Morgan (1970) which recommends a sample of 205 for a population of 140. The academic staff members who were drawn from the same three faculties like the students were also sampled using the stratified sampling procedure. The number of respondents from each faculty is as shown in Table 3 below.

TABLE 3: Number of Academic Staff and Sample Size in the Faculties

S/No	Faculty of	Number of Academic Staff	proportion Sampled
1.	Education	136	64
2.	Sciences	205	97
3.	Engineering	92	44
	Total	433	205

The academic staff members lists were obtained from the Deans Office in each of the faculties on the main campus of Ahmadu Bello University, Zaria.

3.4 Administration of the Tool.

The random sampling procedure was adopted to select the respondents from the selected faculties. This involved distribution of the questionnaire to the students in their lecture rooms randomly by giving a questionnaire to every 4th student in each row of seats. However, the distribution was proportionate to accommodate the ratio of 3 males to 1 female student.

Some of the students' questionnaire were administered on them personally by the researcher in the lecture rooms before the commencement of lectures. The others were administered on the students by the lecturers who agreed to perform the task. On each occasion, the copies were collected immediately from the students.

In the case of the lecturers, copies were distributed to them either in their offices or in the lecture rooms. The researcher went round to collect some of the completed copies while some lecturers sent in theirs.

3.5 Instrumentation

The instruments used for data collection in this study were two sets of questionnaire. Each one of the two sets which was further grouped into four parts - A, B, C and D was for gathering information from the university undergraduate students and the university academic staff members who often have regular contact with the students. The students and staff questionnaire therefore contain 30, 30, 26 and 20 items as shown in Appendices I and II.

In each questionnaire, the student and staff respondents were required to identify the possible causes of stress and anxiety and the degree of seriousness of each item considered as a cause of stress and anxiety. Also to be identified by the respondents were the possible effects of stress and anxiety on students and the coping strategies mostly preferred in dealing with each stress and anxiety generating event.

A pilot study was conducted in order to determine the reliability of the questionnaire engaged in this study. The questionnaire were administered to selected students and staff on the main campus for appropriate responses. The results is as follows:

The reliability of the questionnaire on causes of stress and anxiety was determined using the Kular - Richardson Formula 20 reliability tests:

$$r\ KR\ 20 = \frac{K}{K-1} \quad \left(1 - \frac{pq}{S^2}\right)$$

The result was 0.89 as per students' responses and 0.96 as per staff's responses. The reliability coefficient obtained for both staff and students' questionnaire on the degree of seriousness of possible causes of stress and anxiety is rtt = 0.79. This was determined using the split half or Odd - Even method.

For determining the reliability of the questionnaire on the possible effects of stress and anxiety, Kuder Richardson Formular 20 was also used. The outcome was r KR 20 is 0.86, a confirmation that the questionnaire was reliable.

In determining the reliability of the instrument on possible coping strategies, the Test - Retest approach at two weeks interval was adopted and the correlation value between the 'test' and the 'retest' was 0.89. This indicated close relationship between the responses in the Test and the Retest (See Appendix V for the detailed result of the reliability test).

The sets of questionnaire were presented to a team of five experts in psychology and Guidance and Counselling for modification, suggestions, correction and addition before they were finally used. The expert opinions of the writers and lecturers in Psykholofy and Guidance and Counselling confer validity on the lists and the instrument.

3.6 Data Analysis

The relevant statistics selected for the treatment of the data were the non-parametric statistics. This was because the data were inherently ranks. Specifically, frequency counts, percentages and T-Test analysis were applied to the sets of data for the resolution of the four groups of hypotheses set for the study.

3.7 Summary

In this chapter, the research design and procedure of data gathering and analysis had been discussed.

The study focussed on population of Ahmadu Bello University undergraduates on the main campus. The samples were however drawn from three faculties. These are faculties of Education, Science and Engineering.

It is the opinion of the researcher that these faculties are representative of the main campus undergraduate population with respect to

(i) Wide Spectrum of academic pursuit (ii) Age
(iii) Gender (iv) World view (v) Social disposition and
(vi) Religious inclination.

The instrument designed for data collection were of two sets of the questionnaire that required responses as to

(i) the causes and degree of seriousness of stress and anxiety.

(ii) the effects of stress and anxiety on the students and

(iii) the preferred coping strategies.

The questionnaire were validated. Reliability tests showed that the questionnaire had high reliability co-efficient.

The statistics employed in the study included frequency counts, percentages and the t-test. Some of these statistics were utilized in testing the hypotheses.

Chapter 4

4.0 RESULTS AND DISCUSSION

4.1 Introduction

This chapter deals with the results generated in the course of this study as well as the discussions on them. There are four broad areas in which relevant data are analysed and results presented. These include:

(i) possible causes of stress and anxiety.

(ii) Extent of seriousness of the identified causes of stress and anxiety.

(iii) possible effects of stress and anxiety and

(iv) Possible coping strategies in the event of stress and anxiety.

4.2 Results

4.2.1 Possible Causes of Stress and Anxiety

The data related to "Possible causes of stress and anxiety" were generated from the responses to Appendices I^A and II^A by both the undergraduate students and the academic staff respectively.

Tables 1 and 2 present the frequency tabulations of responses of the undergraduate students and the academic staff respectively.

4.2.1.1 Students' Responses

In table 1 below the following issues attracted 70% and above "Yes" responses. They are:

1. Death of a close relation.
2. Academic problem.

3. State of physical health.

4. Anxiety over impending examination.

5. Change in financial position.

6. Lack of sufficient sleep.

7. Frustration.

8. Being distressed because of problems for which you cannot find adequate solution.

10. Condition of modern life i.e. struggle for survival.

This researcher is inclined to view any item that attracted 70% and above 'Yes' as a strong cause of stress and anxiety.

Table 4.1 Frequency Distribution of Ahmadu Bello University Undergraduates' Responses to "Possible Causes of Stress and Anxiety"

N = 347

S/No.	Statements on "Possible Causes of Stress and Anxiety	Responses Yes	No
1.	Love relationship	238 (68.6)	95 (27.4)
2.	Death of a close relation	286 (82.4)	49 (14.1)
3.	Academic problems	301 (82.4)	40 (11.5)
4.	State of physical health	269 (77.5)	70 (20.2)
5.	Anxiety over impending examination	251 (72.3)	89 (52.4)
6.	problem of adapting to university life	251 (72.3)	89 (52.4)
7.	Noise pollution in your environment	210 (60.5)	133 (38.3)
8.	Impending challenging events e.g. sporting competition	*108 (31.1)	227 (65.4)
9.	Excessive cold weather	*162 (46.7)	172 (49.6)
10.	Muscular fatigue	*160 (46.1)	175 (50.4)
11.	Change in financial position	307 (88.5)	37 (10.7)
12.	Loneliness	211 (60.8)	131 (37.8)
13.	Lack of sufficient sleep	257 (74.1)	87 (25.1)
14.	Use of intoxicants	174 (50.1)	164 (47.3)
15.	Sexual relationship	*156 (45)	181 (52.2)

S/No.	Statements on "Possible causes of Stress and Anxiety	Responses Yes	No
16.	Being haunted by fear	228 (65.7)	112 (32.3)
17.	Future goals	263 (75.8)	79 (22.8)
18.	Being haunted by troubled conscience	239 (68.9)	102 (29.4)
19.	Religious leanage	*149 (42.9)	183 (52.7)
20.	Speaking before a group	179 (51.6)	157 (45.2)
21.	psychological demands on you	228 (65.7)	106 (30.5)
22.	Frustration.	261 (75.2)	83 (23.9)
23.	Being deprived of sufficient sleep	225 (64.8)	119 (34.3)
24.	Threatening loss of social goals	193 (55.6)	149 (42.9)
25.	Individuals unfavourable adjustment to life.	215 (62.0)	127 (36.6)
26.	Being distressed because of problems for which you cannot find adequate solution	280 (80.7)	62 (17.9)
27.	Feeling of inadequacy because of nutritional habits	176 (50.7)	164 (47.3)
28.	Condition of modern life i.e. struggle for survival	257 (74.1)	85 (24.5)
29.	The way an individual reacts to situations	222 (64.0)	117 (33.7)
30.	Unduly anticipating future difficulties	204 (58.8)	139 (40.1)

Note: Percentages (%) are in parentheses.
*Responses that attracted less than 50% "Yes".

S/No	Statement on "Possible Causes of Stress and Anxiety"	Responses Yes	No
11.	Change in financial position	138 (65.7)	70 (33.3)
12.	Loneliness	134 (63.8)	76 (36.2)
13.	Lack of sufficient sleep	155 (73.8)	52 (24.8)
14.	Use of intoxicants	132 (62.9)	75 (35.7)
15.	Sexual relationship	145 (69.0)	61 (29.0)
16.	Being haunted by fear	148 (70.5)	59 (28.1)
17.	Future goals	173 (82.4)	37 (17.6)
18.	Being haunted by troubled conscience	148 (70.5)	60 (28.6)
19.	Religious leanage	105 (50.0)	101 (49.5)
20.	Speaking before a group	121 (57.6)	87 (41.4)
21.	psychological demands on you	168 (80.0)	42 (20.0)
22.	Frustration	187 (89.0)	21 (10.0)
23.	Being deprived of sufficient sleep	152 (72.4)	57 (27.1)
24.	Threatening loss of social goals	157 (74.8)	51 (24.3)
25.	Individuals unfavourable adjustment to life	149 (71.0)	58 (27.6)
26.	Being distressed because of problems for which you cannot find adequate solution	170 (81.0)	39 (18.6)
27.	Feeling of inadequacy because of nutritional habits	141 (68.1)	66 (31.4)

S/No	Statement on "Possible Causes of Stress and Anxiety	Responses yes	Responses NO
28.	Condition of modern life i.e. struggle for survival	172 (81.9)	36 (17.1)
29.	The way an individual reacts to situations	149 (71.0)	59 (28.1)
30.	Unduly anticipating future difficulties	151 (71.9)	58 (27.6)

Note: Percentage (%) are in parenthesis.
*Responses that attracted less than 50% 'yes'.

Responses with 70% 'yes'

1. Love relationship.
2. Death of a close relation.
3. Academic problems.
4. State of physical health.
5. Anxiety over impending examinations.
6. Problems of adapting to university life.
7. Lack of sufficient sleep.
8. Being haunted by fear.
9. Future goals.
10. Being haunted by troubled conscience.
11. Psychological demands.
12. Frustration.
13. Being deprived of sufficient sleep.
14. Threatening loss of social goals.
15. Being distressed because of problems for which you cannot find adequate solution.
16. Individuals unfavourable adjustment to life.

17. Conditions of modern life.

18. The way an individual reacts to situations.

19. Unduly anticipating future difficulties.

The greater number of causes of stress and anxiety indicated by the academic staff is complementary to the students' list rather than negate it. This is so because the academic staff have the advantage of observing the students in their work and social life. Their perceptions will be of great value in making recommendations in this study.

4.2.2.1 Degree of Seriousness of Identified Causes of Stress and Anxiety

The data related to the degree of seriousness of identified and listed causes of stress and anxiety were collected through the responses to Appendices I^B and II^B by both Ahmadu Bello University undergraduate students and selected academic staff.

The frequency tabulations of the students' and staff's responses are as laid out in tables 3 and 4 below.

Table 4.3 Frequency Distribution of Ahmadu Bello University Undergraduates' Responses to "Degree of Seriousness of Causes of Stress and Anxiety"

N = 317

S/No.	Statements Requiring Responses on "Degree of Seriousness of Possible Causes of Stress and Anxiety".	Responses: Extremely Serious	Serious	Not Serious
1.	Love relationship	125 (36.0)	151 (43.5)	56 (16.1)
2.	Death of a close relation	57 (16.4)	139 (40.1)	137 (39.5)
3.	Academic Problems	57 (16.4)	148 (42.7)	135 (38.9)
4.	State of physical health	96 (27.7)	134 (38.6)	106 (30.5)
5.	problems of adapting to university life	*224 (64.6)	87 (25.1)	26 (7.5)
6.	Anxiety over impending examination	121 (34.9)	161 (46.4)	57 (16.4)
7.	Noise pollution in your environment	*180 (51.9)	126 (36.3)	36 (10.4)
8.	Impending challenging events e.g. sporting competition	*246 (70.9)	76 (21.9)	12 (3.5)

S/No.	Statements Requiring Responses on "Degree of Seriousness of Possible Causes of Stress and Anxiety".	Responses Extremely Serious	Serious	Not Serious
9.	Excessive cold weather	*212 (61.1)	95 (28.2)	26 (6.6)
10.	Muscular fatigue	*212 (61.1)	98 (28.2)	23 (7.5)
11.	Change in financial position	59 (17.0)	195 (64.7)	130 (37.5)
12.	Loneliness	*162 (46.7)	138 (39.8)	41 (11.8)
13.	Lack of sufficient sleep	129 (37.2)	162 (46.7)	53 (15.3)
14.	Use of intoxicants	*165 (47.6)	98 (28.2)	73 (21.0)
15.	Sexual relationship	*201 (57.9)	89 (25.6)	45 (13.0)
16.	Being haunted by fear	131 (37.8)	135 (38.9)	74 (21.3)
17.	Future goals	98 (28.2)	151 (43.5)	71 (26.2)
18.	Being haunted by troubled conscience	127 (36.6)	148 (42.7)	66 (19.0)
19.	Religious leanage	*206 (59.4)	90 (25.9)	34 (9.8)
20.	Speaking before a group	*197 (56.8)	106 (30.5)	31 (8.9)
21.	Psychological demands	143 (41.3)	143 (41.2)	50 (14.4)
22.	Frustration	94 (27.1)	129 (37.2)	121 (34.9)
23.	Being deprived of sufficient sleep	*159 (45.8)	136 (39.2)	41 (11.1)
24.	Threatening loss of social goals	*176 (50.7)	125 (36.0)	41 (11.8)

S/No.	Statements requiring Responses on "Degree of Seriousness of Possible Causes of Stress and Anxiety"	Responses: Extremely Serious	Serious	Not Serious
25.	Individual's unfavourable adjustment to life	*163 (47.0)	125 (40.6)	41 (11.0)
26.	Being distressed because of problems for which you cannot find solutions	88 (25.4)	168 (48.4)	87 (25.1)
27.	Feeling of inadequacy because of nutritional habits	*178 (51.3)	110 (31.7)	51 (14.7)
28.	Conditions of modern life i.e. struggle for survival	103 (29.7)	144 (41.5)	94 (27.1)
29.	The way an individual reacts to solutions	*154 (44.4)	146 (42.1)	36 (10.4)
30.	Unduly anticipating future difficulties	*169 (48.7)	120 (34.6)	52 (15.0)

Note: Percentages are in parenthesis

*Greater proportion of the respondents indicate that all the possible causes of stress and anxiety are serious.

4.2.2.2 Students' Responses

As can be observed from table 3, there is no cause of stress and anxiety that attracted 50% response under the column "Not Serious". It can therefore be inferred that ALL the causes are considered serious in students' judgement.

However, some causes are adjudged "Very Serious". This researcher identified those causes with 50% and above responses in the column "Very Serious" to be worthy of note. Such causes include:

1. problems of adapting to university life
2. Noise pollution in your environment
3. Impending challenging events e.g. Sporting competition.

4. Excessive cold weather

5. Muscular fatigue.

6. Sexual relationship.

7. Religious leanage

8. Speaking before a group

9. Threatening loss of social goal and

10. Feeling of inadequacy because of nutritional habits.

4.2.2.3 Academic Staff's Responses

The responses of the academic staff members to the degree of seriousness are as shown in the frequency tabulation in table 4 below

Table 4: Frequency Distribution of Ahmadu Bello University Academic Staff's Responses on "Degree of Seriousness of Possible Causes of Stress and Anxiety"

N = 210

S/No.	Statements Requiring Responses on Degree of Seriousness of Possible Causes of Stress and Anxiety	Responses		
		Extremely Serious	Serious	Not Serious
1.	Love relationship	50 (23.8)	112 (53.3)	45 (21.4)
2.	Death of close relation	26 (12.4)	95 (45.2)	88 (41.9)
3.	Academic problems	14 (6.7)	83 (39.5)	113 (53.8)
4.	State of physical health	20 (9.5)	86 (41.0)	103 (49.0)
5.	Anxiety over impending examination	30 (14.3)	110 (52.4)	70 (33.3)
6.	problems of adapting to University life	57 (27.1)	97 (46.2)	56 (26.7)

S/No.	Statements Requiring Responses on Degree of Seriousness of Possible Causes of Stress and Anxiety	Responses: Extremely Serious	Serious	Not Serious
7.	Noise pollution in your environment	105 (50.0)	80 (38.1)	22 (10.5)
8.	Impending challenging events e.g. sporting competition	118 (56.2)	66 (31.4)	24 (11.4)
9.	Excessive cold weather	120 (57.1)	73 (34.1)	15 (7.1)
10.	Muscular fatigue	125 (59.5)	67 (31.9)	14 (6.7)
11.	Change in financial position	91 (43.3)	73 (34.2)	44 (21.0)
12.	Loneliness	94 (44.8)	86 (41.0)	30 (14.3)
13.	Lack of sufficient sleep	73 (34.8)	103 (49.0)	32 (15.2)
14.	Use of intoxicants	80 (38.1)	82 (39.0)	47 (22.4)
15.	Sexual relationship	80 (38.1)	91 (43.3)	36 (17.1)
16.	Being haunted by fear	79 (37.6)	78 (37.1)	51 (24.3)
17.	Future goals	59 (28.1)	116 (55.2)	33 (15.7)
18.	Being haunted by troubled conscience	74 (35.2)	93 (44.3)	39 (18.6)
19.	Religious leanage	110 (52.4)	72 (34.3)	26 (12.4)
20.	Speaking before a group	103 (49.0)	87 (41.4)	17 (8.1)
21.	Psychological demands	65 (31.0)	110 (52.4)	33 (15.7)
22.	Frustration	35 (16.7)	103 (49.0)	68 (32.4)

S/No.	Statements Requiring Responses on Degree of Seriousness of Possible Causes of Stress and Anxiety	Responses: Extremely Serious	Serious	Not Serious
23.	Being deprived of sufficient sleep	77 (16.7)	105 (49.0)	68 (32.4)
24.	Threatening loss of social goals	72 (34.3)	109 (51.9)	27 (12.9)
25.	Individual's unfavourable adjustment to life	72 (34.3)	82 (42.4)	45 (21.4)
26.	Being distressed because of problems for which you cannot have adequate solutions	47 (22.4)	107 (51.0)	54 (25.7)
27.	Feeling of inadequacy because of nutritional habits	75 (35.7)	95 (45.2)	37 (17.6)
28.	Conditions of modern life i.e. struggle for survival	52 (24.8)	106 (50.5)	51 (24.3)
29.	The way an individual reacts to situations	78 (37.1)	105 (50.0)	24 (11.4)
30.	Unduly anticipating future difficulties	82 (39.0)	96 (45.7)	30 (14.3)

Note: Percentages (%) are in parentheses.

All the causes were considered serious because the academic staff did not give up to 50% response to any statement under the column, "Not Serious". Some of the statements however attracted 50% and above under the "Extremely Serious" column. The statements include the folowwing:

1. Noise pollution in your environment.
2. Impending challenging events e.g. sporting competition.
3. Excessive cold weather.
4. Muscular fatigue.
5. Religious leanage.

The students' and staff's responses were subjected to t-test statistical analysis for the resolution of hypotheses 2(a) and 2(b). This will be discussed later.

4.2.3.1 Possible Effects of Stress and Anxiety

In order to assess the possible effects of stress and anxiety on the students, a list of 26 items/statements was presented to both the sampled undergraduate students and academic staff. They gave "Yes" or "No" responses to the given statements. Their responses were subjected to frequency counts which led to the data in tables 5 and 6.

Table 5 Frequency Distribution of Ahmadu Bello University Undergraduates' Responses on "Possible Effects of Stress and Anxiety"

N = 347

S/No.	Statements on Possible Effects of Stress and Anxiety	Responses: Yes Frequency	Yes percentage	No Frequency	No percentage
1.	Anger	*287	82.7	58	16.7
2.	Fear	*274	79.0	73	21.0
3.	Inability to realise full Potentials	225	64.8	117	33.7
4.	Lust	129	37.2	203	58.5
5.	Inability to enjoy life fully	*246	70.9	97	28.0
6.	Becoming aparthetic	194	55.9	138	39.8
7.	Tension over specific objects	*255	73.5	87	25.1
8.	Failure to recognize personal worth	199	57.3	143	41.2
9.	Misinterpretation of events	211	60.8	132	38.0
10.	Headache	*252	72.6	94	27.1
11.	Upset digestion/constipation	146	42.1	194	55.9
12.	Impairment of concentration	240	69.2	98	28.2
13.	Lack of concentration	*265	76.4	98	28.2

Table 4.6 Frequency Distribution of Ahmadu Bello University Academic Staff's Responses on "Possible Effects of Stress and Anxiety"

N = 210

S/No	Statements on "Possible Effects on Stress and Anxiety	Responses Yes		NO	
		Frequency	percentage	Frequency	percentage
1.	Anger	189	90.0	18	8.6
2.	Fear	174	82.9	35	16.7
3.	Lust - eagerness to possess	100	47.6	98	46.7
4.	Inability to realise full potentials	178	84.8	28	13.3
5.	Inability to enjoy life fully	181	86.8	28	13.3
6.	Becoming aparthetic	160	76.2	46	21.9
7.	Tension over specific objects	175	83.3	32	15.2
8.	Failure to recognize personal worth	155	73.8	53	25.2
9.	Misinterpretation of events	165	78.6	40	10.0
10.	Headache	147	70.0	60	19.0
11.	Upset disgestion/constipation	108	51.4	97	46.2
12.	Impairment of concentration	178	84.8	31	14.8
13.	Lack of concentration	179	85.2	28	13.3
14.	Being easily irritated	182	86.7	27	12.9
15.	Disliking one's work	139	66.2	66	31.4
16.	Inability to stand the pressure of work	182	86.7	26	12.4
17.	Illness	138	65.7	68	32.4
18.	Nervous tension	170	81.0	39	18.6
19.	Mental fatigue	172	81.9	37	17.6
20.	Carry over of unresolved conflict	171	81.4	34	16.2
21.	Feeling that something dreadful is about to happen	147	70.0	59	28.1
22.	Feeling uneasy all over the body	150	71.4	56	26.7
23.	Disturbing thoughts	198	94.3	9	4.3
24.	Pains all over the body	111	52.9	94	44.8
25.	Aggressive behaviour	172	81.9	37	17.6
26.	Poor performance in problem solving tasks	181	86.2	26	12.4

4.2.3.2 Students' Responses on Possible Effects of Stress and Anxiety

The table above represents the pattern of the students' responses with respect to the effects stress and anxiety have on them. They have said "No" to the following with responses greater than 50% under 'No':

1. Lust
2. Upset digestion/constipation
3. Disliking one's work and
4. Pains all over the body.

The researcher once again opts to choose 70% respnse to indicate high probability of inclination towards the effects stress and anxiety have on the students. Such effects are as astericked in table 5. They are 10 in all.

4.2.3.3 Academic Staff's Responses on Possible Effects of Stress and Anxiety

The pattern of responses of the sampled academic staff of Ahmadu Bello University, Zaria on the effects of stress and anxiety on the students is as presented in table 6 below.

The response pattern above does not have any response close to or above 50% response under the "No" colum. - This is indicative of the fact that all the listed items or statements carry the potentiality of having effects on the students in varying degrees. As indicated in table 6, twenty-one of the statements attracted 70% and above responses from the academic staff. This value again, (as in the possible causes of stress and anxiety)

is double the students' responses. This repeated pattern of responses confirm the researcher's view that the academic staff are in vantage position to mirror the students and their possible advisers as to what their (students) problems are. In a nutshell, the academic staff possibly see the students better than they see themselves.

4.2.4.1 Coping Strategies Adopted by Students When Under Stress and Anxiety

In this study, the causes and extent of seriousness of stress and anxiety have been examined. Also, the possible effects stress and anxiety could have on undergraduate students were investigated. In order to complete the search, the students and academic staff were requested to pick the coping strategies most preferred when students are faced with stressful and anxiety generating events.

Statements of events that may lead to stress and anxiety were followed by four statements of coping strategies in the fashion of multiple choice items. The respondents identified and ticked the most preferred. Frequency counts and percentage calculations were made for each item. This led to the data presented in table 7, 8 and 9.

4.2.4.2 Students' Response

Table 4.7 Frequency Distribution of Ahmadu Bello University Undergraduate Responses on "Coping Strategies in Stressful and Anxiety Giving Events"

N = 347

S/No.	Statements on Events That May Lead to Stress and Anxiety	Preferred Coping Strategies	Responses Frequency	Responses Percentage (%)
1.	Love relationships	Seek sympathetic relationship with a counsellor	264	76.1
2.	Death of a close relation	I feel like dying too	232	66.9
3.	Change in financial position	I do constructive and positive thinking	289	83.3
4.	Academic Problems	Seek sympathetic relationship	278	80.1
5.	State of physical health	Seek medical attention	261	62.2
6.	Anxiety over impending examination	Relax and settle down to serious work	222	64.0
7.	Problem of adapting to university life	Comply with the rules and regulations	208	59.9
8.	Noise pollution in my environment	Avoid the source	242	69.7
9.	Impending challenging events e.g. sports,	Do extensive practice	216	62.2
10.	Excessive cold	Try to adjust to the situation	234	67.4
11.	Muscular fatigue	Seek medical attention	249	71.8
12.	Loneliness	Seek sympathetic relationship with a counsellor	130	37.5

S/No.	Statements on Events That May Lead to Stress and Anxiety	Preferred Coping Strategies	Responses Frequency	Responses Percentage (%)
13.	Lack of sufficient sleep	Seek medical attention	156	45.0
14.	Use of intoxicants	Seek medical attention	163	47.0
15.	Sexual relationship	Seek sympathetic relationship with a counsellor	167	48.1
16.	Being haunted by fear	Pray to God/Allah for strength	159	45.8
17.	Being haunted by troubled conscience	Turn to God for strength, Try to relax	133	38.3
18.	Future goals	Think of the present first	177	51.0
19.	Religious leanage	Think constructively about it	198	57.1
20.	Speaking before a group	Relax and take things easy	279	80.4

Table 4.8 Least Preferred Coping Strategies by Students

N = 347

S/No	Least Preferred Coping Strategies as Indicated by Students' Responses	Responses: Range of Frequencies	Responses: Range of Percentages
1.	Use of alcohol	2 - 13	0.6-3.7
2.	Withdrawal	0	0
3.	Become aggressive	0	0
4.	Pray	0-1	0-0.3
5.	Smoke cigarette	0-18	0-5.2
6.	Self medication	0-11	0-3.2
7.	Use of drugs	0-5	0-1.4
8.	Let others decide for me	2	0.6

4.2.4.3. Academic Staff's Responses

The responses of the academic staff to an instrument similar to the students' generated the data presented in table 9.

Table 4.9 Frequency Distribution of Responses of Ahmadu Bello University Academic Staff on Coping Strategies Adopted by Students in Stress and Anxiety Giving Events

N = 210

S/No	Statements on Events That May Lead to Stress and Anxiety	Preferred Coping Strategies	Responses Frequency	Responses Percentage (%)
1.	Love relationship	Seek sympathetic relationship with a counsellor	129	61.4
2.	Death of a close relation	Turn to God for comfort and strength	148	70.5
3.	Change in financial position	Do constructive and positive thinking	141	67.1
4.	Academic problem	Seek sympathetic relationship	129	61.1
5.	State of physical health	Seek medical attention	159	75.7
6.	Anxiety over impending examination	Relax and settle down to serious work	160	76.2
7.	Problem of adapting to university life	Comply with the rules and regulations	109	51.9
8.	Noise pollution in my environment	Avoid the source	120	57.1
9.	Impending challenging events e.g. sports, examinations	Do extensive practice	110	52.4
10.	Excessive cold	Adjust to the situation	141	67.1
11.	Muscular fatigue	Seek medical attention	183	87.1
12.	Loneliness	Seek sympathetic relationship with a counsellor	75	35.2
13.	Lack of sufficient sleep	Seek medical attention	113	53.8
14.	Use of intoxicants	Seek medical attention	106	50.5
15.	Sexual relationship	Seek sympathetic relationship with a counsellor	117	55.7

S/No.	Statements on Events That May Lead to Stress and Anxiety	Preferred Coping Strategies	Responses Frequency	Responses Percentage (%)
16.	Being haunted by fear	Pray to God for strength	106	50.5
17.	Being haunted by troubled counscience	Turn to God for strength	86	41.0
18.	Future goals	See a career counsellor	113	53.8
19.	Religious leanage	Think constructively about it	138	65.7
20.	Speaking before a group	Relax and take things easy	197	93.8

The identified coping strategies represent the staff's observations of how Ahmadu Bello University undergraduate students grapple with stress and anxiety in relation to the stated situations. Their patterns of responses are similar to the students' options. The staff however differ in identifying two areas ignored or not preferred by students. These are:

(i) Turn to God for comfort and strength (e.g. in case of death of a close relation) and

(ii) See a career counsellor (e.g. in relation to future goals).

It is understandable that staff members should rate these two coping strategies high - they are older and more experienced about life in general.

The academic staff also ignored some strategies by rating them low. - Such least recommended strategies are listed in table 10 below.

Table 4.10 Least Preferred Coping Strategies as Identified By Academic Staff

S/No	Least Preferred Coping Strategies (as Indicated by Academic Staff)	Responses Range of Frequencies	Responses Range of Percentages
1.	Use of alcohol	0-3	0-1.4
2.	Withdrawal	0	0
3.	Become aggressive	0	0
4.	Pray	0-13	0-6.2
5.	Smoke cigarettee	0	0
6.	Self medication	0	0
7.	Use of drugs	0-1	0-0.5
8.	Let others decide for you	0-3	0-1.4
9.	Feel like dying too	0-2	0-1.0
10.	Cry myself out	0	0
11.	Believe in what the majority believe	0-5	0-2.4
12.	Wear dark glasses	0-1	0-0.5

4.2.4.4 Firdings

The findings of this study are summarized in this unit. The students used in this study do not consider "Problem of adapting to university life, Impending challenging events e.g. sporting competition and sexual relationship" as causes of stress and anxiety from among the list provided in Table 4.1. All the other twenty-seven items are adjudged to be causes of stress and anxiety. However, in the opinion of the academic staff, all the items listed on the table have been rated to be causes of stress and anxiety to students. It should be noted that "Problem of adapting to university life" attracted 80.5% responses from the academic staff. This could be so because of the complaints received from the students.

The students and staff used in this study have agreed that the following causes of stress and anxiety are Extremely Serious. They are: "Noise pollution in their environment, Impending challenging events, muscular fatigue and Religious leanage". In addition, the students have further identified these causes of stress and anxiety as also being Extremely Serious. They are: "Problem of adapting to university life, Sexual relationship, Speaking before a group, Threatening loss of social goal and Feeling of inadequacy"

The effects of stress and anxiety are found to be highly pronounced on the students as rated by the students themselves. Some of the stated effects are Anger, Fear, Inability to enjoy life fully, Tension over specific objects, Headache, Lack of concentration, Nervous tension, Feeling uneasy all over the body, Disturbing thoughts and Poor Performance in problem solving tasks. All these have been shown with their relevant frequencies of responses in table 4.5.

The academic staff consider that all the listed items in Table 4.6 with the exception of three have serious effects on the students. The three which are lowly rated are Lust (47.6%), Upset digestion/ constipation (51.4%) and pains all over the body (52.9%).

There are similarities in the responses of students and staff on the coping strategies to be adopted in the event of stress and anxiety. In all, the students indicated eight least preferred coping strategies. These are: "Use of alcohol, Withdrawal, Becoming Aggressive, Praying, Smoking cigarette, Self medication, Use of drugs, Let others decide for you".

The academic staff on their own identified the following least preferred strategies in addition to those mentioned by the students. These are, "Feel like dying, Cry myself out, Believe in what the majority believe in and Wear dark glasses"

In general, the findings in the four main areas of this study show that the students and the academic staff agree to an appreciable extent on:

(i) The causes of stress and anxiety among the undergraduate students of Ahmadu Bello University, Zaria.

(ii) The fact that the causes of stress and anxiety are very serious.

(iii) The fact that stress and anxiety have adverse effects on the students and

(iv) The fact that coping strategies have been identified.

4.3 Hypotheses Testing

4.3.1 Hypothesis 1^

"There is no significant difference between the male and female students in their perceptions of the causes of stress and anxiety". In order to test this hypothesis, the data generated were subjected to a t-test statistical analysis at level of significance of $P < 0.05$. Table 11 below presents the relevant data.

Table 4.11 T-Test Analysis of Ahmadu Bello University Undergraduates' (Male and Female) Responses to the Possible Causes of Stress and Anxiety

Groups	N	Mean	Std Dev.	Std Error	F Value	Df	T Value
Males	278	50.20	14.98	0.89	1.77	345	-1.08
Females	69	52.55	19.92	2.39			

At P $<$ 0.05, the t value of -1.08 does not show any significant difference between the groups.

The students therefore do not differ significantly in their opinions as to the causes of stress and anxiety, hence hypothesis 1(a) is retained.

4.3.2 Hypothesis 1(B)

This hypothesis states that:

"There is no significant difference between the male and female academic staff as to their perceptions of the causes of stress and anxiety among Ahmadu Bello University undergraduates."

The data which were generated from the staff's responses to the questionnaire on the possible causes of stress and anxiety were subjected to t-test statistics.

Table 4.12: T-Test Analysis of A.B.U. Academic Staff's (Male and Female) Responses to the "possible Causes of Stress and Anxiety" Among A.B.U. Undergraduate Students

Groups	N	Mean	Std. Dev.	Std. Error	F Value	Df	T Value
Males	139	50.57	12.70	1.07	2.48	208	0.42
Females	71	9.88	8.05	0.95			

The calculated t-test of 0.42 indicates that there is no significant difference between the groups, thus hypothesis 1(b) is also retained.

4.3.3 Hypothesis 2(A)

"There is no significant difference between the male and female students in their ratings of the levels of seriousness of stress and anxiety on A.B.U. undergraduates."

In testing this hypothesis, the data from the students' responses were analysed with t-test statistics and the result is as presented in table 13:

Table 4.13: T-Test Analysis of A.B.U. Undergraduates Responses to "The Extent of Seriousness of the Causes of Stress and Anxiety" Among Students

Groups	N	Mean	Std. Dev.	Std. Error	F Value	DF	T Value
Males	278	56.93	17.44	1.04	1.93	345	-1.44
Females	69	60.59	24.07	2.89			

1.44 ($p < 0.05$), t not significant.

T-value of $\pm$ 1.44 suggests that the respondents do not differ in their responses to the extent of seriousness of the causes of stress and anxiety among A.B.U. undergraduates. It should however be noted that all the respondents rated all the listed causes of stress and anxiety as either serious or very serious.

4.3.4 Hypothesis 2(B)

This hypothesis states that :

"There is no significant difference between the male and the female academic staff in their ratings of the level of seriousness of stress and anxiety on A.B.U. undergraduates."

The responses from the sampled academic staff members were subjected to a t-test analysis and the data in table 14 emerged.

Table 4.14: T-Test Analysis of A.B.U. Academic Staff's Responses to the Extent of Seriousness of the Causes of Stress and Anxiety Among Students

Groups	N	Mean	Std. Dev.	Std. Error	F Value	DF	T Value
Male	139	57.64	13.69	1.16	1.31	208	-0.31
Female	71	58.22	11.96	1.42			

$t = \pm$ 0.41, ($p <$ 0.05 t not significant.

The obtained t value of ± 0.31 falls below the critical value of 1.96 at $p <$ 0.05 consequently the respondents do not differ significantly in their perception of the degree of seriousness of the causes of stress and anxiety. Hypothesis 2(B) is therefore retained.

4.3.5 Hypothesis 3 (A)

"There is no significant difference between the male and female students in their perceptions of the effects of stress and anxiety on A. B. U. undergraduates."

The responses made by the students to the statements in appendix 1C generated the data for the testing of hypothesis 3(a). The results are presented in table 15.

Table 4.15 T-Test Analysis of Students' Responses to the "Possible Effects of Stress and Anxiety"

Groups	N	Mean	Std. Dev.	Std. Error	F Value	Df	T Value
Males	276	41.59	8.21	0.49	1.72	345	-0.33
Females	71	41.94	6.25	0.74			

t = 10.33 ($P < 0.05$) t not significant.

The computed t value of -0.33 shows that the students do not differ significantly in their responses as to the effects of stress and anxiety on them. Therefore, hypothesis 3(A) is retained. The frequency tabulation table however shows that all the items have effects of varying degrees on the students.

4.3.6 Hypothesis 3 (B)

"There is no significant difference between the male and female academic staff in their perceptions of the effects of stress and anxiety on A.B.U. undergraduates."

The academic staff's opinions gave rise to the data shown in table 16 after being subjected to t-test statistics.

Table 4.16: T-Test Analysis of Academic - Staff's Responses to the Possible Effects of Stress and Anxiety on A.B.U. undergraduates

Groups	N	Mean	Std. Dev.	Std. Error	F Value	Df	T Value
Males	138	45.00	17.73	1.51	2.27	208	-.76
Females	72	46.76	11.75	1.38			

$t = \pm$ 76 ($P < 0.05$) t is not significant.

At $P < 0.05$ the t value of -0.76 shows no significant difference. Thus the members of the academic staff do not differ in their perceptions of the effects of stress and anxiety on A.B.U. undergraduates. Therefore, hypothesis 3(B) is not rejected.

It should be noted that the academic staff indicated that:

(i) all the listed effects can be manifested by students and

(ii) twenty-one of the items on possible effects attracted 'Yes' responses of 70% and above.

4.3.7 Hypothesis 4(A)

The hypothesis here states that: "There will be no significant difference between the male and female students as to the preferred coping strategies when under stress and anxiety".

The data employed in the resolution of this hypothesis were generated from the frequencies of responses to the items in Appendix 1D. Table 17 presents the data relating to the t-value.

Table 4.17: T-Test Analysis of A.B.U. Undergraduates' Preferred Coping Strategies When Under Stress and Anxiety

Groups	N	Mean	Std. Dev.	Std. Error	F Value	Df	T Value
Males	276	63.92	3.69	0.22	1.15	345	-3.00
Females	71	65.38	3.44	0.40			

$t = -3.00$ ($p < 0.05$) t is significant.

The t-value obtained (-3.00) is more than the critical value of 1.96 at $p < 0.05$ hence the respondents differ significantly in their opinion as to the coping strategies to be preferred or employed in the event of stress and anxiety.

Hypothesis $H_4(A)$ is therefore rejected. That is, that the student respondents do not agree as to the strategies they will adopt to counter or ward off stress and anxiety.

4.3.8 Hypothesis $H_4(B)$

The hypothesis states that: "There will be no significant difference between the male and female academic staff in their perception of the recommended coping strategies for A.B.U. undergraduates when under stress and anxiety."

The analysis of the responses from the academic staff gave the data for t-test analysis as shown below in table 18.

Table 4.18: T-Test Analysis of Academic Staff's Perception of Preferred Coping Strategies Among A.B.U. Undergraduates

Groups	N	Mean	Std. Dev.	Std Error	F Value	Df	T Value
Males	138	65.44	3.42	0.29	1.20	208	1.02
Females	72	64.95	3.12	0.36			

$t = 1.02$ ($P < 0.05$)

The obtained t value of 1.02 is below the critical value of 1.96 at $p < 0.05$ hence there is no significant difference in the perception of the academic staff with regard to the preferred coping strategies.

Therefore hypothesis 4(B) is retained.

4.4 Discussion

In an earlier part of the study the resolution of the hypotheses set for this investigation has been briefly discussed. In each case, the t-test values were stated and the decisions also highlighted. In this section, effort will be made to discuss the findings.

4.4.1 Hypotheses 1 (A & B)

(i) Hypothesis 1 (a) states that:

"There is no significant difference between the male and female students as to their perception of the causes of stress and anxiety".

(ii) Hypothesis 1(b) states that:

"There is no significant difference between the male and female academic staff as to their perception of the causes of stress and anxiety among A.B.U. undergraduates.

Hypotheses 1 (A & B) are retained because as shown in table 1 the frequency tabulation indicates that only five of the thirty items attracted less than 50% "Yes" out of the total responses to the "Possible causes of stress and anxiety" among the students. These items are:

(i) Impending challenging events (31.1%).

(ii) Excessive cold weather (46.1%).

(iii) Muscular fatigue (46.1%).

(iv) Sexual relationship (45%).

(v) Religious leanage (42.9%).

All the other 24 items attracted responses greater than 50% "Yes".

Also in Table 2, the frequency distribution of the staff's responses indicates that only one item attracts less than 50% response for 'yes'. The item is, "Excessive cold weather" - (49.5%).

The students' and staff's responses as shown on the frequency distribution tables 1 and 2 therefore indicate that the respondents are overwhelmingly in agreement as to the "Possible causes of stress and anxiety" among the student population. They did not differ much in their responses.

In addition to the pattern of responses in the distribution tables, the t-test analysis gave values of -1.08 and 0.42 respectively for the students and academic staff as shown in tables 11 and 12. Since these values are far below the critical value at $P < 0.05$, hypotheses 1A and B are retained.

It is hardly surprising that most of the items attracted high percentages of 50% and above in the affirmative (i.e. Yes). Afterall, these items which were perceived by both the students and staff as causes of stress and anxiety are life experiences. They are situations that may occur in our lives that can lead to stress and anxiety. Moreover, they are forces or pressures caused by difficulties in life.

Girdano et al (1979) have grouped them into psycho-social, bioecological and personality causes of stress and (anxiety). In the opinion of Iwuji (1990) too, every organism or living thing (both plant and animal) has numerous sources of stress in its environment.

It is worth nothing that "Religious leanage" is not considered as a serious cause of anxiety by both the students and the staff. Although the students do not also perceive "Problem of adapting to university life" as a cause of stress and anxiety, the academic staff perceived it as a cause. The researcher is inclined to agree with the perception of the staff since in relation to adapting to university life for instance, students are known to have some problems. Such problems like problem of adaptation, frustration, overload, and deprivation according to Girdano et al (1979) are psychosocial causes of stress and anxiety which originated as a result of a complex interaction that exists between socialization and perception.

In the light of the observations therefore, the university counselling unit needs to recognize that students need more enlightenment on the various causes listed in Appendix 1A of this study.

Hypotheses 2 (A & B)

These hypotheses state that

(A) "There will be no significant difference between the male and female students in their ratings of the degree of seriousness of stress and anxiety on AFU undergraduates.

(B) "There will be no significant difference between the male and female academic staff in their ratings of the level of seriousness of stress and anxiety on A.B.U. undergraduates".

The analysis of the data generated for hypothesis 2 gave t-values of -1.44 and 0.31 for students and staff respectively. The -1.44 value confirmed that there is no significant difference between the students. Also the staff do not differ significantly with the 0.31 value.

The frequency tabulations of the responses show a clearer picture. Greater proportions of students and staff indicated that all the possible causes of stress and anxiety are serious though at different degrees as shown in tables 3 and 4. In the students' responses, the following issues are considered extremely serious, having attracted 'yes' responses from more than 50% of the respondents: They are

(1) Problem of adapting to university life.

*(2) Noise pollution in the environment.

*(3) Impending challenging events.

*(4) Excessive cold weather.

*(5) Muscular fatigue.

(6) Sexual relationship.

*(7) Religious leanage.

(8) Speaking before a group.

(9) Threatening loss of social goal.

The academic staff identified (2), (3), (4), (5) and (7)(as astericked above) as extremely serious causes of stress and anxiety.

Although the students earlier failed to identify "Adapting to university life, Impending challenging events, Excessive cold weather, Muscular fatigue, Sexual relationship and Religious leanings" as causes of stress and anxiety, they however, possibly from experience now recognise them as extremely serious issues and therefore rated them as being serious.

Hypotheses 3 (A & B)

Hypotheses 3 state that:

(i) "There is no significant difference between the male and female students with respect to their perception of the effects of stress and anxiety on A.B.U. undergraduates".

(ii) "There is no significant difference between the male and female academic staff with respect to their perception of the effects of stress and anxiety on A.B.U. undergraduates".

The t-test values of the students' and staff's responses here gave values of -0.33 for students and -0.76 for the staff. There was no significant difference between:

(i) the student respondents and

(ii) the academic staff respondents.

Also, the frequency tabulation of the students' responses show that stress and anxiety have profound effects

on them as shown in Table 5 where 10 of the items attracted 70% and above responses for 'Yes'. These 10 effects include 'Anger, Fear, Inability to enjoy life, Tension, Headache, Lack of concentration, Nervous tension, Uneasiness. Disturbing thoughts and Poor performance in problem solving tasks.

Only four items attracted less than 50% responses for 'Yes'. These are, Lust, Upset digestion/constipation, Disliking one's work and Bodily pains." In essence, the student respondents identified 22 out of 26 items as the effects experienced when under stress and anxiety. This represents 85%. The academic staff's responses are similar to the students as shown in table 6.

"Anger, Fear and Tension for example are serious effects that can bring other effects into manifestation.

The students' and staff's responses as shown in Tables 5 and 6 showed that stress and anxiety have effects on the students. Some of such effects are listed above. Hence, the student do not differ within themselves as to the fact that stress and anxiety have effects on them. Also, the academic staff agree that students experience the effect of stress and anxiety.

In the light of the data in Tables 5 and 6 and the t-test values of -0.33 for students and -0.76 for staff, hypotheses 3(A & P) cannot be rejected.

Mills (1951) is of the opinion that anxiety does not just come from life but is manufactured by systems. The university environment itself is full of stress and anxiety

provoking factors while the mode of operating the university system too contributes in large measures to stressful and anxiety generating situations. This view is hereby confirmed by the pattern of the staff and students respondents.

Hypotheses H_4(A & B)

These hypotheses state that:

(a) "There will be no significant difference between the male and female students as to the preferred coping strategies when under stress and anxiety."

(b) "There will be no significant difference between the male and female academic staff in their perception of recommended coping strategies for A.B.U. undergraduates under stress and anxiety".

The obtained t-value of -3.00 for the students indicated that there was a significant difference in their responses while the t-value of 1.02 for the staff did not show any significant difference in the responses of the staff of A.B.U. This implies that the students differed among themselves as to the choice of coping strategies. The academic staff on the other hand agreed on the strategies students should adopt when under stress and anxiety.

Hypotheses H_4(a) was therefore rejected while H_4(b) was retained.

Since the degree of stress and anxiety experienced as a result of an event differs from person to person, (Ikeotuonye and Bashmir, 1989) and the number and types of stressors to human body are numerous and varied, (Hans Selye in Iwuji, 1970), it therefore stands to reason that some persons according to Girdano et al (1979) will use a combination of coping methods and even exhibit different

methods in different situations as in the case of the students.

The frequency distribution of the students' responses shows that 50% and above of the respondents opted for 13 of the items as "Preferred coping strategies". On the other hand, seven of the items attracted responses from 37.5% to 48.1% of the respondents. This pattern of responses shows that all the student respondents did not agree on the selection of coping strategies to deal with prevailing stress and anxiety.

This split in responses among the students and the t-value of -3.00 show that the students differ significantly in their choice of coping strategies. The differences in opinion however lean more heavily towards those 13 items which attracted 50% and above responses. The differences in choice of coping strategies among the student respondents can be attributed to different biological, social, economic, ethnic and religious backgrounds.

It is worth nothing that the students in coping with specific stress and anxiety events will prefer to:

(i) Seek sympathetic relationship with a counsellor

(ii) Do constructive thinking.

(iii) Seek medical attention.

(iv) Relax and settle down to serious work.

(v) Comply with rules and regulations.

(vi) Avoid the source of stress and anxiety.

(vii) Adjust to the situation.

(viii) pray to God for strength.

(ix) Relax and take things easy.

All these in the view of Iwuji (1990) are direct coping strategies. They are beneficial and assist in solving problems.

The academic staff's responses were similar to the students except in two particular circumstances.

In coping with "Death of a close relation", the students preferred "I feel like dying too" while staff preferred "Turn to God for comfort and strength."

The second area of difference is in "Future goals". Here, the students preferred "Think of the present first", while the staff preferred, "See a career counsellor".

Undoubtedly, the staff's preferences are more beneficial on the long run.

It is also worth nothing that there are some coping strategies that are totally abhored by the students. These include:

(i) Use of alcohol.

(ii) Withdrawal.

(iii) Use of drugs.

(iv) Becoming aggressive.

(v) Praying (in some circumstances).

(vi) Smoking cigarette.

(vii) Self medication.

(viii) Let other decide for you.

All these are according to Iwuji (1990), indirect coping strategies which amount to self deceit in that t ev. are temporary measures that never really solve any proble but rather increase problems.

In addition to the above, the academic staff also do not like the following:

(i) Feel like dying.

(ii) Cry myself out.

(iii) Believe in what the majority believe in.

(iv) Wear dark glasses.

The findings here are very useful in guiding students on how to solve some of their problems. They have already indicated the direction they will like to go and have also shown what choices they will not like to take.

Since the university setting poses serious challenges to young people taking on new challenges, they need a well planned approach for their integration into higher level of operating. The issues identified so far call for the need for the university authority to pay attention to other areas in the students' lives as well as their intellectual upbringing. Such areas include the emotional/psychological needs, of students. Appropriate guidance from a functional Guidance and Counselling clinic on how to cope with issues will possibly make intellectual pursuit more rewarding and less rigorous for the students.

4.5 Summary

In this chapter, the results of the analysed data to answer and test the research hypotheses were presented. The choosen level of significance is $p < 0.05$ at the appropriate degrees of freedom. The main statistical test applied for the resolution of the hypotheses is the t-test. Table 19 shows the obtained values

for each hypothesis from the students' and staff's responses. It also indicates the summary of decisions of the hypotheses as either rejected or accepted.

Table 4.19: Summary of Decisions of the Hypotheses

Hypotheses	Obtained T-Test Values	
	Students' Responses (A)	Academic Staff's Responses (B)
Hypothesis 1	- 1.08	.42
Hypothesis 2	-1.44	-.31
Hypothesis 3	-.33	-.76
Hypothesis 4	-3.00	1.02

All the values except that in 4(A) show that the respondents do not differ significantly in their responses since the t-values fall below the critical value of 1.96 at $p < 0.05$. In 4(A) the respondents differ in their responses as indicated by the t-value of -3.00.

Chapter 5

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter, focus will be on the summary, conclusion and recommendations based on the study, "The Causes, Effects and Management of Stress and Anxiety" among Ahmadu Bello University undergraduates".

5.2 Summary

In accomplishing this study, the target was the 200 - 600 level undergraduate students on the main campus of Ahmadu Bello University, Zaria. The students and staff samples were drawn from three of the eight faculties on the main campus. These are the faculties of Education, Sciences and Engineering.

The data for the study were gathered through the use of two sets of questionnaire administered on the students and academic staff of the named faculties.

It has been established through literature review that various writings on human experiences have indicated that stress and anxiety are not only part of human life but that they are necessary for survival and self actualization. Hilgard (1971) for instance affirmed that all people are occasionally placed under conditions of stress and anxiety while Iwuji (1990) is of the view that stress is part of life and that it could be a means to our maturity in life or a test of it.

A university life with its various inter-personal relationships is likely to constitute some sources of stress and anxiety. The need to identify the causes, effects and management strategies of stress and anxiety actually adopted by students motivated this research.

5.3 Conclusion

From the result of this study, it can be concluded that students and staff of Ahmadu Bello University had identified the causes of stress and anxiety. They had rated their degree of seriousness. They also agreed that students experience various effects of stress and anxiety. Preferred coping strategies were also identified and these coping strategies have been classified into direct and indirect coping methods (Iwuji, 1990).

In all, four hypotheses were generated and tested.

With reference to hypotheses 1 (a & b) the T-values were -1.08, for the students and 0.42 for the staff. The students as well as the staff therefore do not differ significantly in

their perceptions of the causes of stress and anxiety. Infact 70% of the 347 students respondents answered in the affirmative 'Yes' that the listed items are causes of stress and anxiety. Also, ten out of the thirty items attracted 70% and above 'Yes' responses. In the case of the academic staff, all the thirty items attracted 'Yes' responses with nineteen out of the thirty items having 70% and above 'yes' response.

Hypotheses 2 (a & b) too when tested gave the T values of -1.44 and -0.31 for the students and staff respectively thereby causing the hypotheses to be retained. The students as well as the academic staff therefore recognised the seriousness of stress and anxiety as evidenced by their responses in tables 3 and 4. The result indicated that no listed cause of stress and anxiety attracted 50% response under the "Not Serious" column. It can therefore be inferred that the causes are considered serious by the students. In the case of the academic staff too, all the items were considered as being either "Serious or Extremely serious".

The third hypotheses, 3 (a & b) gave the values of T as -0.33 and -.76 for the students and staff respectively thereby confirming that the effects of stress and anxiety on A.B.U. undergraduates were identified by the students and the staff. The frequency counts for the students which were used for the T test indicated that twenty-one out of the twenty-six items attracted 'Yes' responses while in the case of the academic staff all the responses attracted 'Yes' responses with as many as twenty-one of the twenty-six items having 70% and above 'yes' response.

Hypothesis 4(a) was rejected with the T value of -3.00 which is more than the critical value of 1.96. This is because the responses given by the students as to the preferred coping strategies indicated that the students differ considerably in their preferred coping strategies in the event of stress and anxiety. Hypothesis 4 (b) was however retained with the result of the T value being 1.02. This is an indication that the academic staff agreed to some extent on the coping strategies that students can adopt in the cases of stress and anxiety.

Although earlier writings had listed some causes of stress and anxiety e.g. Ikeotuonye and Bashmir (1989) a detailed study had not been done to suggest to A.B.U. students to identify issues that could cause them stress and anxiety and also to rate the seriousness of such issues. More than before, we now stand in a period in time when it becomes necessary to identify problems before they even manifest. This is necessary because most of our undergraduates are coming from 'problem zones' e.g. unsettled homes, poor academic backgrounds, lack of financial support, lack of love and affection, etc. Hence, if we are aware of the possible causes of stress and anxiety for these students we can work out the solutions in advance. It seems economical to do so.

It had been stated once in this study that many of the causes of stress and anxiety on the university campus are caused by the system. It will therefore be helpful if the administrative and academic staff can reduce the causes by looking into the following:

(i) Registration procedure.

(ii) Procedure for payment of fees and dues in the Senate building.

(iii) Procedure of hostel accommodation.

(iv) Students' social life.

(v) Provision of good toilet facilities

(vi) Provision of lecture rooms and

(vii) Establishment of a campus-located bank to encourage savings, and discourage reckless spending.

5.4 Recommendations

In the light of the findings in this study, the following recommendations are made:

(1) It is recommended that the university should have functional counselling units which should be well staffed with professional and matured counsellors. Such counselling units should develop appropriate seminar/workshop materials on causes, effects and managements of stress and anxiety among university students. Also, the counselling units should hold regular workshops for and with university officials who have the responsibility of first receiving the students into the campus. This is necessary because first impression counts.

(2) The administrative mechanism which deals directly with students should be completely overhauled to reduce the rigour and agony usually experienced by students during registration. This can be removed by introducing a workable and soothing system. For instance, the

registration procedure can be modified so that students do not que and que for hours. The system of hall allocation too can be improved upon while the idea of issuing one registration form and asking students to go and photocopy more copies can be eradicated.

(3) The university counselling unit(s) can develop some counselling written materials on "negative" coping strategies (i.e. Indirect, coping strategies) like smoking, drinking, prostituting, use of drugs, etc. to highlight the ineffectiveness of such strategies. Such materials can be made available for students' reading during orientation and counselling sessions.

(4) Finally, it is recommended that other researchers should work on some other groups in the society (e.g. the working mothers) to identify what constitutes to them, causes of stress and anxiety and how they cope.

It is clear from this study that both the students and the academic staff know the effects that stress and anxiety may have on students. Having known these, it is now necessary that steps are taken to reduce the various effects. If some of the suggestions made in this study, particularly under recommendations are carefully examined, solutions to many of the problems are near.

The researcher admits that this study is very wide in scope hence detailed investigation was not possible with respect to each of the four areas identified for the study. It is suggested that further studies be carried out in each of the areas and with respect to other human endeavours. It will be helpful for instance to carry out studies on:

(1) What constitutes the causes of stress and anxiety for:

(a) Housewives.

(b) Obas, Obis and Emirs

(c) Business Executives

(d) Vice-Chancellors

(e) Lecturers

(f) Medical doctors etc and

(2) What coping strategies do they adopt? The outcome of such studies will be helpful.

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please complete the following. your name is not required.

'ick ( ) the appropriate box.

(1) Age

1. 16 - 21 ——
(2). 21 - 26 ——
(3). 26 - 31 ——
(4). 31 - 36 ——
(5). 36 - 41 ——
(6). Above 41 ——

(2) Sex

(1). Male ——
(2). Female ——

(3). Marital Status

(1). Single (never married) ——
(2). Married (or married before) ——

(4). Religion

(1). Christianity ——
(2). Islam ——
(3). None of the above ——

(5). Which level are you

1. 200 level ——
2. 300 level ——
3. 400 level ——
4. 500 level ——
5. 600 level ——

(6). Faculty/Department

.....

(7). Course

.....

SECTION B

APPENDIX 1A & 1B

STUDENTS

INSTRUCTION

Below are some possible causes of stress and anxiety. Please go through the items carefully and indicate which of them are sources of stress and anxiety for you as university undergraduates. You are also implored to indicate the degree of seriousness of each item which is a source of stress and anxiety.

S/NO	POSSIBLE CAUSES OF STRESS AND ANXIETY	IF YES STATE THE DEGREE OF SERIOUSNESS				
		CAUSES yes	CAUSES NO	Extremely Serious	Serious	Not Serious
1.	Love relationship					
2.	Death of a close relation					
3.	Academic problems					
4.	State of physical health					
5.	Anxiety over impending examination					
6.	problems of adapting to university life					
7.	Noise pollution in your environment					
8.	Impending challenging events e.g. sporting competition					
9.	Excessive cold weather					
10.	Muscular fatigue					
11.	Change in financial position					
12.	Loneliness					
13.	Lack of sufficient sleep.					
14.	Use of intoxicants					
15.	Sexual relationship					
16.	Being haunted by fear					
17.	Future goals					
18.	being haunted by troubled by troubled conscience					

S/NO	POSSIBLE CAUSES OF STRESS AND ANXIETY.	IF YES STATE THE DEGREE OF SERIOUSNESS			
		A^1 CAUSES YES NO	Extremely Serious	Serious A^2	Not Serious
19.	Religious leanage				
20.	Speaking before a group				
21.	psychological demands				
22.	Frustration				
23.	Being deprived of sufficient sleep				
24.	Threatening loss of Social goals				
25.	Individuals unfavourable adjustment to life				
26.	Being distressed because of problems for which you cannot find adequate solution				
27.	Feeling of inadequacy because of nutritional habits				
28.	Condition of modern life i.e. struggle for survival				
29.	The way you react , to situations				
30.	Unduly anticipating future difficulties				

INSTRUCTION

Four coping methods are given for each of the events leading to stress and anxiety. Please read them carefully and indicate with a tick ( ) what you usually do to cope with each of the stressful and anxiety giving events numbered 1 - 20.

State other coping methods you will prefer but which are not indicated in any group of four suggested by the investigator.

Use the space after each group.

6

S/NO	EVENTS THAT MAY LEAD TO STRESS AND ANXIETY	POSSIBLE COPING STRATEGIES	TICK THE APPLICABL
	Example (1) Lack of money	(a) I borrow money from friends (b) I pray towards it (c) I labour for it (d) I beg for money	(a) (b) (c) (d)
1.	Love relationship	(a) I seek sympathetic relationship with a cansellor (b) I become withdrawn and aggressive (c) I do constructive and positive thinking (d) I drink alchohol	(a) (b) (c) (d)
2.	Death of a close relation.	(a) I rely on friends to console me (b) I turn to God/Allah for comfort and strength (c) I view the situation positively (d) I feel like dying too	(a) (b) (c) (d)
3.	Change in financial position	(a) I drink alchohol (b) I become withdrawn and aggressive (c) I write down the problem and the possible solutions (d) I do constructive and positive thinking.	(a) (b) (c) (d)
4.	Academic problems	(a) I cry out myself (b) I smoke cigarette (c) I seek sympathetic relationship (d) I do constructive and positive thinking.	(a) (b) (c) (d)

S/NO	EVENTS THAT MAY LEAD TO STRESS AND ANXIETY	POSSIBLE COPING STRATEGIES	TICK THE APPLICABLE
5.	State of physical health	(a) I do self medication (b) I pray over it (c) I seek medical attention (d) I avoid the sources of the illness	(a) (b) (c) (d)
6.	Anxiety over impending examination	(a) I rely on the church/mosque for strength (b) I relax and settle down to serious work (c) I drink alchohol to forget about it (d) I seek help from friends or lecturers.	(a) (b) (c) (d)
7.	problem of adapting to university life	(a) I become withdrawn and aggressive (b) I become conscious of the presence of a lot of stress and anxiety factors around and view them positively (c) I comply with the rules and regulations (d) I pray to God/Allah	(a) (b) (c) (d)
8.	Noise pollution in my environment	(a) I avoid this source of stress and anxiety. (b) I alter the environment that causes stress and anxiety (c) I become withdrawn and aggressive. (d) I seek sympathetic relationship with a counsellor.	(a) (b) (c) (d)
9.	Impending challenging events e.g. Sporting competition, exams.	(a) I remove the source of source stress and anxiety (b) I do extensive practive (c) I drink alchohol (d) I relax	(a) (b) (c) (d)
10.	Excessive cold	(a) I seek medical attention (b) I remove this source of stress and anxiety (c) I try to adjust to the situation (d) I become withdrawn	(a) (b) (c) (d)
11.	Muscular fatigue	(a) I drink alchohol (b) I seek medical attention (c) I remove the source (d) I go to the church/mosque	(a) (b) (c) (d)

S/NO	EVENTS THAT MAY LEAD TO STRESS AND ANXIETY.	POSSIBLE COPING STRATEGIES	TICK THE APPLICABL
12.	Loneliness	(a) I seek sympathetic relationship with a counsellor. (b) I project my life to other i.e. I live for others. (c) I take to drugs (d) I write down the problem and the possible solutions and select the most promising	(a) (b) (c) (d)
13.	Lack of sufficient sleep	(a) I pray over it (b) I seek medical attention (c) I relax (d) I resort to smoking	(a) (b) (c) (d)
14.	Use of intoxicants	(a) I pray over it (b) I become aggressive (c) I project my thoughts and interests outwards to the needs and interests of others (d) I seek medical attention	(a) (b) (c) (d)
15.	Sexual relationship	(a) I seek sympathetic relationship with a counsellor (b) I pray to God/Allah over it (c) I alter the environment that causes it (d) I take to drugs.	(a) (b) (c) (d)
16.	Being haunted by fear	(a) I pray to God/Allah for strength (b) I resort to drinking alchohol (c) I avoid the sources of stress and anxiety (d) I reappraise the sources of stress and anxiety if the source cannot be avoided.	(a) (b) (c) (d)
17.	Being haunted by troubled conscience	(a) I turn to God/Allah for strength (b) I demonstrate my love to God and mankind by rendering services to humanity. (c) I resort to smoking (d) I try to relax	(a) (b) (c) (d)

S/NO	EVENTS THAT MAY LEAD TO STRESS AND ANXIETY	POSSIBLE COPING STRATEGIES	TICK THE APPLICABL
18.	Future goals	(a) I seek sympathetic relationship with a career counsellor (b) I discuss with friends (c) I pray over it (d) I try to think of the present first.	(a) (b) (c) (d)
19.	Religious leanage	(a) I let others decide for me (b) I think constructively about it myself (c) I believe in what the majority believe in (d) I relax and pray over it	(a) (b) (c) (d)
20.	Speaking before a group	(a) I use drugs (b) I put on a pair of dark shade (c) I relax and take things easy (d) I avoid doing so	(a) (b) (c) (d)

STAFF

APPENDIX II

Department of Education
Faculty of Education
Ahmadu Bello University
Zaria.

Sir/Madam,

INSTRUCTION

This researcher is currently undertaking a study on stress and anxiety among A.B.U. undergraduates.

The research is beingg undertaken to find out to what extent students experience feelings of stress and anxiety; what are the causes of stress and anxiety on students, the effects of stress and anxiety on students and the coping strategies you will recommend for students under going stress and anxiety.

It is believed that your honest responses will be of help in planning students' welfare and in assisting them to overcome stress and anxiety related problems.

you are therefore requested to go through the questionnaire carefully and based on your contact with the students respond to the items as honestly as possible.

your cooperation will be highly appreciated sir/ma.

Thanks.

Sotunke, A.M. (MRS).

Please complete the following. Your name is not required sir/ma.

Tick ( ) the appropriate box.

1. Age

(1). 16 - 21 ____ (2). 21 - 26 ____

(3). 26 - 31 ____ (4). 31 - 36 ____

(5). 36 - 41 ____ (6). Above 41 ____

2. Sex

(1). Male ____ (2). Female ____

3. Marital Status

(1). Single (never married) ____

(2). Married (or married before) ____

4. Religion

1. Christianity ____
2. Islam ____
3. None of the above ____

5. Faculty/Department

.....

6. Designation

1. Academic staff ____
2. Academic level ____

STAFF

INSTRUCTION

Below are some possible causes of stress and anxiety. Please go through the items carefully and indicate which of them are sources of stress and anxiety for A.B.U. undergraduates. you are implored sir/ma to indicate the degree of seriousness of each item you identify as a source of stress and anxiety to the students.

	POSSIBLE CAUSES OF STRESS AND ANXIETY	IF YES STATE THE DEGREE OF SERIOUSNESS				
		II^A CAUSES Yes	NO	Extremely Serious	II^B Serious	Not Serious
1.	Students' love relationship					
2.	Death of a student's close relation					
3.	Change in a student's financial position					
4.	A student's state of physical health					
5.	Academic problem of a student					
6.	Anxiety over impending examination					
7.	Students' problem of adapting to university life.					
8.	Noise pollution in students' environment (e.g. hostel)					
9.	Impending challenging events e.g. sporting competition.					
10.	Excessive cold weather					
11.	Muscular fatigue					
12.	Loneliness					
13.	Lack of sufficient sleep					
14.	Use of intoxicants					
15.	Students' sexual relationship					

S/NO	POSSIBLE CAUSES OF STRESS AND ANXIETY	IF YES STATE THE DEGREE OF SERIOUSNESS				
		IT[A] CAUSES		IT[B]		
		Yes	No	Extremely Serious	Serious	Not Serious
16.	Being haunted by fear					
17.	Future goals of students					
18.	Being haunted by troubled conscience					
19.	Students' religious leanage					
20.	Speaking before a group					
21.	Psychological demands on students.					
22.	Frustration					
23.	Being deprived of sufficient sleep					
24.	Threatening loss of social goals					
25.	Individuals unfavourable adjustment to life					
26.	Being distressed because of problems for which students cannot find adequate solution					
27.	Feeling of inadequacy because of nutritional habits					
28.	Condition of modern life i.e struggle for survival					
29.	The way an individual reacts to situations					
30.	Unduly anticipating future difficulties					

STAFF

APPENDIX II[C]

INSTRUCTION

When you observe that students experience ~~stress~~ and anxiety, indicate if they have any of these effects on them.

S/NO	POSSIBLE EFFECTS OF STRESS AND ANXIETY	YES	NO
1.	Anger		
2.	Fear		
3.	Lust		
4.	Inability to realize full potentials		
5.	Inability to enjoy full life		
6.	Becoming apathetic		
7.	Tension and worry over specific or generalised objects		
8.	Failure to recognise personal worth		
9.	Misinterpretation of events		
10.	Headache		
11.	Upset digestion/constipation		
12.	Impairment of concentration		
13.	Lack of concentration		
14.	Being easily irritated		
15.	Disliking one's work		
16.	Inability to stand the pressure of work		
17.	Illnesses		
18.	Nervous tension		
19.	Mental fatigue		
20.	Carry over of unresolved conflicts		
21.	Feeling that something dreadful is about to happen		
22.	Feeling uneasy all over the body		
23.	Disturbing thoughts		
24.	Pains all over the body		
25.	Aggressive behaviour		
26.	Poor performance in problem solving tasks.		

INSTRUCTION

Four coping methods are given for each of the events leading to stress and anxiety. Please read them carefully and indicate with a tick ( ) which one you will recommend as a coping method for a student who experiences feelings of stress and anxiety as a result of any of the events numbered 1 - 20

State other coping methods you will prefer but which are not indicated in any group of four suggested by the investigator. Use the space after each group.

S/NO	EVENTS THAT MAY LEAD TO STRESS AND ANXIETY	POSSIBLE COPING STRATEGIES	TICK THE APPLICABLE
	Example (1) Lack of money	(a) you can borrow money from friends (b) you can pray towards it (c) you can labour for it (d) you can beg friends for money	(a) (b) (c) (d)
1.	Love relationship	(a) The student can seek sympathetic relationship with a counsellor (b) The student can become withdrawn and aggressive (c) He should think positively and constructively (d) He can resort to drinking alchohol	(a) (b) (c) (d)
2.	Death of a close relation	(a) The student should rely on friends to console him/her (b) He should turn to God/Allah for comfort and strength (c) He should view the situation positively (d) He should think of dying too.	(a) (b) (c) (d)
3.	Change in financial position	(a) The student should resort to drinking alchohol (b) He can become withdrawn and aggressive (c) The student should write down the problem and the possible solutions (d) He should think positively and constructively.	(a) (b) (c) (d)
4.	Academic problems	(a) He should cry himself out (b) He should smoke cigerette (c) He should seek sympathetic relationship with a counsellor	(a) (b) (c)

S/NO	EVENTS THAT MAY LEAD TO STRESS AND ANXIETY.	POSSIBLE COPING STRATEGIES	TICK THE APPLICAB
5.	State of physical health	(a) He should do self medications (b) He should pray over it (c) He should seek medical attention. (d) He should avoid the sources of the illness	(a) (b) (c) (d)
6.	Anxiety over impending exam	(a) He should rely on the Church/ Mosque for strength (b) Relax and settle down to serious work. (c) Drink alchohol to forget about it (d) He should seek help from friends or lecturer	(a) (b) (c) (d)
7.	problem of adapting to university life	(a) The student should become withdrawn and aggressive. (b) The student should be conscious of presence of a lot of stress and anxiety factors around and view them positively. (c) The student should comply with the rules and regulations (d) He should pray to God/Allah	(a) (b) (c) (d)
8.	Noise pollution in a student's environment	(a) He should avoid this source of stress and anxiety. (b) He should alter the environment that causes stress and anxiety. (c) He should become withdrawn and aggressive. (d) He should seek sympathetic relationship with a counsellor.	(a) (b) (c) (d)
9.	Impending challenging events e.g. sporting competition exam.	(a) He should remove this source of stress and anxiety. (b) He should do extensive practice (c) He can drink alchohol. (D) He should relax.	(a) (b) (c) (d)
10.	Excessive cold weather	(a) He should seek medical attention. (b) He should move a way from this source of stress and anxiety. (c) He should try to adjust to the situation. (d) He should become withdrawn	(a) (b) (c) (d)
11.	Muscular fatigue	(a) He should resort to drinking alchohol. (b) He should seek medical attention (c) He should remove the source	(a) (b) (c)

S/NO	EVENTS THAT MAY LEAD TO STRESS AND ANXIETY	POSSIBLE COPING STRATEGIES	TICK THE APPLICABLE
12.	Loneliness	(a) He should seek sympathetic relationship with a counsellor	(a)
		(b) He should project his life to others i.e. live for others	(b)
		(c) He should write down the problems and the possible solutions count the cost of each solution and select the most promising.	(c)
		(d) He should take to drugs.	(d)
13.	Lack of sufficient sleep	(a) He should pray over it	(a)
		(b) He should seek medical attention	(b)
		(c) He should relax	(c)
		(d) He should resort to smoking	(d)
14.	Use of intoxicants	(a) He should pray over it	(a)
		(b) He should become aggressive	(b)
		(c) He should project his thoughts and interests outward to the needs and interest of others	(c)
		(d) He should seek medical attention	(d)
15.	Sexual relationship	(a) He should seek sympathetic relationship with a counsellor	(a)
		(b) He should pray to God/Allah over it	(b)
		(c) He should alter the environment that causes it.	(c)
		(d) He should take to drugs	(d)
16.	Being haunted by fear	(a) He should pray to God/Allah for strength	(a)
		(b) He should resort to drinking alchohol	(b)
		(c) He should avoid the sources of stress and anxiety.	(c)
		(d) He should reappriase the source of stress and anxiety if the source cannot be avoided.	(d)
17.	Being haunted by troubled conscience	(a) He should turn to God/Allah for strength	(a)
		(b) He should demonstrate his love to God and mankind by rendering services to humanity.	(b)
		(c) He should resort to smoking	(c)
		(d) He should try to relax	(d)
18.	Future goals	(a) He should seek sympathetic relationship with a career counsellor	(a)
		(b) He should discuss with friends	(b)
		(c) He should pray over it	(c)
		(d) He should try to think of the present first.	(d)

S/NO	EVENTS THAT MAY LEAD TO STRESS AND ANXIETY	POSSIBLE COPING STRATEGIES	TICK TH APPLICA
19.	Religious leanage	(a) He should allow others to decide for him.	(a)
		(b) He should think constructively about it himself	(b)
		(c) He should believe in what the majority believe in	(c)
		(d) He should relax and pray over it	(d)
20.	Speaking before a group	(a) He should use drugs	(a)
		(b) He can put on a pair of dark shade	(b)
		(c) He should relax and take things easy	(c)
		(d) He should avoid doing so	(d)

APPENDIX III

SUMMARY OF UNDERGRADUATE STUDENTS POPULATION ON THE MAIN CAMPUS OF A.B.U. FOR 1989/1990 SESSION

Fac.	200L I		300L II		400L III		500L IV		600L V		TOTAL
Agriculture	98	18	93	13	69	11	85	6	-	-	393
Arts and Social Sciences.	426	126	429	98	430	153	-	-	-	-	1, 662
Education	486	194	243	134	487	242	-	-	-	-	1, 786
Engineering	113	30	124	19	170	44	-	-	-	-	500
Medicine	128	17	51	16	71	17	79	88	66	8	461
Pharmacy	98	16	81	17	84	25	64	18	-	-	403
Science	222	47	207	39	232	59	8	-	-	-	814
Vetenary Medicine	68	8	50	13	84	11	78	5	51	5	373
	1639	456	1278	349	1627	562	314	37	117	13	6,392

SUMMARY OF ACADEMIC STAFF IN THE FACULTIES ON THE MAIN CAMPUS OF AHMADU BELLO UNIVERSITY ZARIA FOR 1990/1991 ACADEMIC SESSION.

Faculty of Arts and Social Sciences.

1.	Department of Economics	21
2.	Department of English	29
3.	Department of French	10
4.	Department of Geography	16
5.	Department of Nigerian and African Languages	11
6.	Department of History	25
7.	Department of political Science	20
8.	Department of Sociology	23
	Total	155

Faculty of Agriculture

1.	Department of Agric, Econs/Rural Sociology	21
2.	Department of Engineering	5
3.	Department of Science	16
4.	Department of Crop protection	24
5.	Department of Soil Science	17
6.	Agronomy Department	30
7.	Department of Animal Science	10
	Total	123

Faculty of Education

1.	Department of Education	77
2.	Department of Library Science	19
3.	Department of Physical and Health Education	16
4.	Department of Vocational and Technical Education	24
		136

Faculty of Engineering

1.	Department of Agricultural Engineering	15
2.	Department of Chemical Engineering	14
3.	Department of Civil Engineering	14
4.	Department of Electrical Engineering	11
5.	Department of Mechanical Engineering	11
6.	Department of Metallurgical Engineering	9
7.	Department of Surveying Engineering	13
8.	Department of Water Resources & Environmental Engineering	5
	Total	92

Faculty of Medicine

1.	Department of Human Anatomy	7
2.	Department of Community Medicine	4
3.	Department of Human Physiology	8
4.	Department of Medicine	9
5.	Department of Paediatrics	8
6.	Department of Surgery	8
7.	Department of Obstetrics & Gynaecology	3
8.	Department of Traumatic & Orthopaedic Surgery	4
9.	Department of Opthalmology	3
10.	Department of Dental Surgery	5
11.	Department of Pathology	2
12.	Department of Haematology	2
13.	Department of Radiology	2
14.	Department of Microbiology	1
15.	Department of Anaesthesis	1
16.	Department of Chemical Pathology	2
17.	Department of BioChemistry	7
18.	Department of Pharmacology and clinic Phamacy	4
	Total	89

Faculty of Pharmaceutical Sciences

1.	Department of Pharmaceutical & Medicinal Chemistry	10
2.	Department of Pharmacognosy & Drug Development	9
3.	Department of Pharmaceutics & Pharmaceutical Microbiology	13
4.	Department of Pharmacology & Clinical Pharmacy	14
	Total	46

Faculty of Sciences

1.	Department of Biochemistry	14
2.	Department of Biological Sciences	31
3.	Department of Chemistry	27
4.	Department of Geography	16
5.	Department of Geology	16
6.	Department of Mathematics	17
7.	Department of Microbiology	12
8.	Department of Physics	22
9.	Department of Textile Science & Technology	11
10.	Department of Centre for Energy Research and Training	39
	Total	205

Faculty of Veterinary Medicine

1.	Department of Veterinary Anatomy	6
2.	Department of Veterinary parasitology & Entomology	5
3.	Department of Veterinary pathology & Microbiology	5
4.	Department of Veterinary physiology & Pharm.	4
5.	Department of Veterinary public Health & Preventice Medicine	2
6.	Department of Veterinary Surgery & Medicine	7
7.	Department of Veterinary Teaching Hospital	5
	Total	34

1.	Faculty of Arts and Social Sciences	155
2.	Faculty of Agriculture	123
3.	Faculty of Education	136
4.	Faculty of Engineering	92
5.	Faculty of Medicine	89
6.	Faculty of pharmaceutical Sciences	46
7.	Faculty of Sciences	205
8.	Faculty of Veterinary Medicine	34
	Total	880

APPENDIX V

RELIABILITY OF THE QUESTIONNAIRE

In order to determine the reliability of the questionnaire engaged in this study, they were administered to selected students and staff on the main campus for appropriate responses. The section of the questionnaire relating to coping strategy (Appendix 1^C) was readministered two weeks after the first response. This was to collect data for the "Test - Retest" reliability.

RELIABILITY OF QUESTIONNAIRE ON CAUSES OF STRESS AND ANXIETY

The questionnaire on causes of stress and anxiety was made up of two parts or sections, (Appendix 1^A & II^B) section one of each solicited responses (i.e. Yes/No) to the list of causes. Respondents agreed with some causes by ticking in column 'Yes' or disagreed by ticking in the column 'No'. The total responses for 'Yes' and 'No' were determined for both students and staff samples.

The data generated were subjected to Kuder-Richardson Formula 20 reliability Test. $r_{KR\ 20} \frac{K}{K-1} \left(1 - \frac{pq}{S^2}\right)$,

Hopkins and Stanley (1981) argued that Kudar-Richardson (KR Formula 20) secures the mean intercorrelation of the items in a test or questionnaire.

They also hold the view that the value obtained is the reliability co-efficient of the typical item in the questionnaire. The essence of the test was to measure the internal consistency of the instrument.

On applying Kuder-Richardson Formular 20

$$r_{KR\ 20} - \frac{K}{k-1} \left(1 - \frac{pq}{S^2}\right)$$

where r_{KR} 20 = Intercorrelation value

K = number of items in the questionnaire

S = Standard Deviation

p = proportion of respondents who ticked 'Yes'

q = proportion of respondents who ticked 'No'

The data in table 3 were generated from staff and students' responses.

TABLE 3. INTERCORRELATION VALUES OF RELIABILITY

	STAFF N = 50	STUDENTS N = 100
YES	990	2061
NO	298	788
S.D.	30.27	68.21
r_{KR} 20	0.96	0.86

The table shows r_{KR} 20, to be 0.96 and 0.89 respoectively for staff and students responses to causes of stress and anxiety among students. This researcher is inclined to rely on these values from the staff and students.

The reliability of the questionnaire on causes of stress and anxiety was therefore 0.89, as per students responses and 0.96 as per the staff.

RELIABILITY OF QUESTIONNAIRE ON DEGREE OF SERIOUSNESS OF POSSIBLE CAUSES OF STRESS AND ANXIETY.

The staff and students' gave responses to the items in the questionnaire (Appendix 1^B) as to the degree of seriousness along the following goals (i) Extremely Serious, (ii) Moderately serious, (iii) Just serious and (iv) Not at all serious. The scale has the value of 4. 3. 2. 1 respectively.

The reliability of the questionnaire was determined by split half or Odd-Even method.

The mean of the total value of responses per item on the questionnaire was determined. These values were used in calculating the correlation between the odd and even numbered items on the questionnaire.

The correlation (r) is 0.79 for both staff and students' questionnaire.

The odd-even approach was preferred in determining the reliability of the questionnaire so that all content areas could be covered (Fox, 1969). In order to estimate the reliability of the full instrument, Fox (1969) suggested the applixation of Spearman-Brown prophecy formula which is stated as:-

$$r^{tt} = \frac{2r}{1 + r.}$$

where r^{tt} = Estimated Spearman

Brown Reliability of total Instrument, and r' = Actual correlation between halves (i.e. odd and even numbered items) of the instrument.

The reliability co efficient obtained for both staff and students' questionnaire was $r^{tt} = 0.79$. This high value of reliability co efficient showed that the questionnaire is reliable for the purpose it was constructed.

RELIABILITY OF THE QUESTIONNAIRE ON POSSIBLE EFFECTS OF STRESS AND ANXIETY

The items on the questionnaire on possible effects of stress and anxiety on the students were made up of a list to which respondents were to agree or disagree by putting a tick under the columns "YES" and "NO".

The reliability of this questionnaire (Appendix 1^C) was determined by the application of Kuder-Richardson Formula 20 as was done in 3. 8. 1.) r_{KR} 20 was calculated to be 0.86. This value indicated that the questionnaire was reliable.

RELIABILITY OF THE QUESTIONNAIRE ON POSSIBLE COPING STRATEGIES

The questionnaire on possible coping strategies adopted by the student when they are under stress and anxiety was made up of twenty items. Each item was made up of (i) a statement of event that may lead to stress and anxiety, and (ii) suggestion of four possible coping strategies labelled (a) (b) (c) and (d). The respondents ticked preferred one (Appendix 1^D).

The researcher had earlier assigned values, 4, 3, 2, 1, to the suggested coping strategies. 4 was for most acceptable strategy while 1 was for the least acceptable.

In order to determine the reliability of the instrument, Test - Retest approach was adopted with an interval of two weeks after the first Administration of the questionnaire. The same sample of students was used for the test - retest.

The correlation value between the test and the retest was 0.89. This indicated close relationship between the responses in the TEST (1st administration of the questionnaire) and the RETEST (2nd administration of the questionnaire).