

**PERCEIVED UTILIZATION OF STRESS COPING STRATEGIES BY
UNDERGRADUATE STUDENTS IN SELECTED DEPARTMENTS IN SCHOOL OF
BASIC MEDICAL SCIENCE IN UNIVERSITY OF BENIN**

BY

JAMES OSAMUDIAMEN RHODA

BMS1702167

**DEPARTMENT OF NURSING SCIENCE,
SCHOOL OF BASIC MEDICAL SCIENCES,
UNIVERSITY OF BENIN,
BENIN CITY.**

SEPTEMBER, 2023

**PERCEIVED UTILIZATION OF STRESS COPING STRATEGIES BY
UNDERGRADUATE STUDENTS IN SELECTED DEPARTMENTS IN SCHOOL OF
BASIC MEDICAL SCIENCE IN UNIVERSITY OF BENIN**

BY

JAMES OSAMUDIAMEN RHODA

BMS1702167

**DEPARTMENT OF NURSING SCIENCE,
SCHOOL OF BASIC MEDICAL SCIENCES,
UNIVERSITY OF BENIN,
BENIN CITY.**

**IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF BACHELOR OF
NURSING SCIENCE, SCHOOL OF BASIC MEDICAL SCIENCES, UNIVERSITY
OF BENIN, BENIN CITY. FOR THE AWARD OF BACHELOR OF NURSING
SCIENCE CERTIFICATE.**

SEPTEMBER, 2023

DECLARATION

This is to declare that this research project titled **PERCEIVED UTILIZATION OF STRESS COPING STRATEGIES BY UNDERGRADUATE STUDENTS IN SELECTED DEPARTMENTS IN SCHOOL OF BASIC MEDICAL SCIENCE IN UNIVERSITY OF BENIN** was carried out by **JAMES OSAMUDIAMEN RHODA**, is solely the result of my work except where acknowledged as being derived from other person(s) or resources.

Matriculation number

BMS1702167

In the Department of Nursing Science, University of Benin.

.....

Date.....

CERTIFICATION

This is to certify that this research proposal by **JAMES OSAMUDIAMEN RHODA** with Matriculation number **BMS1702167** is a student of Nursing Science, School of Basic Medical Sciences.

Sr. Joan N. Chukwurah, Ph.D.
(Project Supervisor)

Date

Dr.(Mrs.) R.E. Esewe
(Head of department)

Date

External Examiner

Date

Abstract

Any change that puts either a physical, mental, or psychological strain on a person is said to be stressful. The main purpose of the study was to assess the perceived utilization of stress coping strategies by undergraduate students in selected departments in School of Basic Medical Science, University of Benin. Participants included 320 students randomly selected from 100-500 levels from Department of Medical Biochemistry and Department of Nursing Science. A descriptive cross sectional study was employed in this study. The Instrument for data collection was a structured questionnaire. The Statistical Package for Social Sciences was used to analyse the data collected using tables, means, simple percentage and frequency. Findings revealed that there is moderate level of perceived stress amongst undergraduate students in School of Basic Medical Science. This is due to the fact that the mean scores of the items under the level of perceived stress of undergraduate students were above the cut off mean of 2.00 thus resulting in a grand mean of 2.63, a source of stress identified was examination 256(87.7%) and common strategies they used in combating stress was logging in on any social media platform, sleep, pray and listening to music. The results of this study thus call on need for emphasis on positive and effective stress coping strategies in the school curriculum and encouraging the need for students to visit a Psychologist at the school's Department of Guidance and Counselling. Also, academic related stress will prevent quality outcome and output of graduates to the society, therefore, there is the need to incorporate the teaching of stress management to undergraduate students. This will go a long way in equipping them with the skills necessary to cope with different forms of stress they encounter during the course of their studies.

Key words: Utilization, stress coping strategies and undergraduate students.

Dedication

This research project work is dedicated to Almighty God for his grace through the period of this research and to my dear parents, Mr. James & Mrs. Courage Odeh for their continuous support and encouragement throughout this journey.

Acknowledgement

My sincere gratitude goes to Almighty God for his grace, strength, mercy, love and kindness upon my life throughout the period of my study and for making this research work a success. I am glad to acknowledge and appreciate my project supervisor Sr. Joan N. Chukwurah, Ph.D. for the support, guidance and advice throughout this research study, may the Almighty God continue to bless you and your family. Special thanks to the Head of Department, Nursing Sciences Dr. (Mrs.) R.E. Esewe and course adviser Mrs. M.A. Iniomor as well as all my lecturers, Prof. F.U. Okafor, Dr. (Mrs.) J.E. Afemikhe, Dr. (Mrs.) C. E. Omorogbe, Dr. (Mrs.) C. Eneku, Dr.(Mrs) J. N. Oko-ose, Dr. T. A. Ehwarieme, Mrs. C. C. Edo-Osagie, Mrs. E. N. Oyana, Mrs.Chiekwe, Mrs. Orobili and Mrs. Lawal as well as non-academic staffs and technologists and all other lecturers for their immense contribution, dedication and commitment to the success of this research work. I am glad to be under your guidance. Thank you for all your tremendous advice and for the knowledge you have instilled in me.

Special appreciation goes to my wonderful parents, Mr. James and Mrs. Courage Odeh, my Aunt, Mrs. Clara Ojo and Uncle, Engr. Moses Ojo, my siblings, James Ruth, Aimuamwosa, Mercy and Etiosa for their prayers, financial support and understanding throughout the period of this academic pursuit, also to my friends and fellow course mates for their encouragements at one time or the other and for their support in the pursuit of my career.

Table Of Content

Cover Page.....	i
Title page.....	ii
Declaration	iii
Certification	Error! Bookmark not defined.
Abstract	Error! Bookmark not defined.
Dedication	Error! Bookmark not defined.
Acknowledgements	Error! Bookmark not defined.
Table of content	viii
List of tables	xii
List of figures	xiii
CHAPTER ONE	1
1. 0 INTRODUCTION	1
1.1 Background of study	1
1.2 Statement of problem	5
1.3 Objective of the study	6
1.4 Research questions	6
1. 5 Research hypothesis	6
1. 6 Significance of the Study	7
1 .7 Scope of Study	7

1. 8 Operational definition of terms	7
CHAPTER TWO	9
LITERATURE REVIEW	9
2.0 INTRODUCTION	9
2.1 Conceptual Review	9
2.1.1 Concept of Stress/Academic Stress	9
2.1.2 Neutrality of stressors	10
2.1.3 Stressors	11
2.1.4 Categories of stressors in Psychology	13
2.1.5 Classification of stress	14
2.1.6 Academic stress	15
2.1.7 Eustress/Distress	16
2.1.8 Chronic stress	17
2.1.9 Stress management and coping strategies	17
2.1.10 Stress management techniques	19
2.3 Application of the theoretical framework to the proposed study	25
2.4 Empirical Review	26
2.5 Summary of literature review	Error! Bookmark not defined.
CHAPTER THREE	32
METHODOLOGY	32
3.0 INTRODUCTION	32

3.1 Research Design	32
3.2 Research Setting	32
3.3 Target Population	33
3.4 Sample size	34
3.5 Sampling Technique	35
3.6 Instrument for Data Collection	36
3.7 Validity of the Instrument	37
3.8 Reliability the Instrument	37
3.9 Method of Data Collection	37
3.10 Method of Data Analysis	38
3.11 Ethical Consideration	38
CHAPTER FOUR	40
RESULTS	40
4.1 INTRODUCTION	40
4.2 Demographic Characteristics of Respondents	Error! Bookmark not defined.
4.3 Answer to research questions	Error! Bookmark not defined.
4.4 Hypothesis testing	Error! Bookmark not defined.
CHAPTER FIVE	42
DISCUSSION OF FINDINGS	50
5.0 INTRODUCTION	50
5.1 Discussion of Findings	51

5.1.1 Demographic Data	51
5.1.2 Perceived Academic stress	51
5.1.3 Sources of Stress	52
5.1.4 Stress Coping Strategy	53
5.2 Implication of findings to Nursing	54
5.3 Limitations of study	55
5.4 Summary	55
5.5 Conclusion	56
5.6 Recommendations	56
5.7 Suggestion for further studies	57
REFERENCES	59
Appendix I	69
Appendix II	Error! Bookmark not defined.
Appendix III	Error! Bookmark not defined.

List Of Tables

Table 3.1 Population of selected departments	34
Table 4.1: Demographic characteristics of respondents	40
Table 4.2: Perceived Academic stress	42
Table 4.3: Sources of Stress	45
Table 4.4: Stress Coping Strategies	47
Table 4.5: Mean comparison of coping strategy by age group of respondents	50
Table 4.6: Mean comparison of coping strategy by sex of respondents	50

List Of Figure

Figure 2.1: Transactional theory of stress and coping

24

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of study

Everyone experiences stress to some degree, and college students are by no means an exception. Any change that puts either a physical, mental, or psychological strain on a person is said to be stressful.

The word 'stress' was first incorporated into the medical dictionary by Hans Selye. He defined it as the "nonspecific response of the body to any demand" (Selye, 1936; as cited by Fink, 2009). The human body reacts to everything that demands focus or action by causing stress. When the body is faced with stress, the brain releases a series of hormones, including cortisol, epinephrine (also known as adrenaline), and norepinephrine (also known as noradrenaline), which cause physical changes. These alterations, sometimes known as the stress response or the fight, flight-fright reaction, are intended to help individuals in responding to or overcoming a threat or danger they are faced with (Colino, 2022).

Late adolescence and emerging adulthood are transitory ages characterised by considerable bodily and mental changes, including heightened stress (Chiang et al., 2019; Lally & Valentine-French, 2019; Matud et al., 2020). Most students reported having problems especially concerning their new environment, but when they adapt to the new environment, educational problems begin to arise (Babicka-Wirkus et al., 2021). The experienced stress, can however affect how they handle the responsibilities of college life. Short bursts of moderate stress can be beneficial since it can spur individuals to study for examinations or make positive changes in their life. This is known as EUSTRESS. Also, the situations that seem to be stressful to the student can also cause some negative changes in their psychosocial

lives, physical and mental wellbeing on the long term. This is referred to as DISTRESS (Ingram et al., 2020).

Lazarus and Folkman (1988) defined stress as an interactive process between an individual and their environment in which coping determines how stressful events affect an individual's physical and psychological well-being. Nevertheless, persistent or prolonged stress can be damaging since it prevents the body from knowing when to resume normal function. These stressors could be internal or external circumstances that give students a chance to experience alterations in their physiology, emotions, cognition, or behaviour (Pascoe et al., 2020).

Studies by Qutub et al., (2018) and Chapman et al., (2020) showed that students who are under stress may exhibit irritability, lack of focus, decreased academic performance, poor interpersonal relationships, insomnia, and absenteeism. Stress can also lead to exhaustion, depersonalization, and a decrease in personal accomplishments. A student's academic performance may diminish as a result of stressful periods, which could lead to program termination (Pascoe et al., 2020). In a 2015 poll conducted by the American College Health Association and the National College Health Assessment, three out of four university students said they felt stressed, and one out of five said they had thoughts of self-harm as a result of their stress (Liu et al., 2019; American Psychological Association, 2020). According to studies, stress in the University may be a predictor of mental health diagnosis (Liu et al., 2019; Karyotaki et al., 2020). In fact, a lot of mental health issues, like depression, anxiety, and addiction, start at about their undergraduate period (Reddy et al., 2018; Liu et al., 2019; Barbayannis et al., 2022).

While a response to stress may cause anxiety, it may also happen for no apparent reason. In addition, there is the fear of impairment in learning, guilt/embarrassment of not being able to follow remote classes with quality equipment, the uncertainty of when the situation will normalize and insecurity about when they will enter the job market (Rizvi & Nabi, 2021).

These factors can end up making college students more susceptible to emotional and affective disorders, (depression), which in turn can also compromise learning, as well as the perception of stress (Batra et al., 2021). Fear, worry, or unease are all examples of anxiety (Batra et al., 2021). Depression is a mood illness that causes someone to feel down and uninterested in activities they typically find enjoyable. Chronic stress can lead to anxiety and despair. But anxiety is typically regarded as a high-energy condition, whereas sadness is regarded as a low-energy one. A depressed student, in essence, frequently feels anxious, potentially even to the point of having mild to severe panic episodes (Goel, 2021). Depression can also impair a person's ability to focus, sleep, and regulate their diet (Cooper, 2021).

College students often experience stress from a variety of sources, these may include; academic pressure, social troubles, and financial difficulties. The student's psychosocial life, bodily health, and mental wellbeing may suffer long-term consequences from the various sources (Ingram et al, 2020). For the purpose of minimizing the negative effects of stress and to handle painful or challenging emotions when under stress or after trauma, people frequently engage in what is known as a stress coping activity (Hailu, 2020). Lazarus and Folkman (1988) defined coping as the cognitive and behavioural efforts employed in response to external or internal demands that the individual deems to be threats to their wellbeing. It has been considered as a very crucial element in the stress literature, as students under stress can use various coping strategies to buffer, minimize or tolerate the effects of the stressor (Lazarus & Folkman, 1988). It could also be seen as an effort, whether cognitive or action that people use to cope with environmental stressors. The process of managing demands that are perceived as taxing on one's resources and abilities, whether they come from the outside world or from within, is referred to as coping. Stress coping is precisely a person's physiological reaction to an outside stimulus that sets off the "fight-or-flight" reaction. A variety of methods, including psychotherapy, are used in stress management to

help students reduce their overall stress levels, especially chronic stress, and generally to function better every day (Kaur, 2019).

Coping mechanisms are the fundamental categories employed by students to react to the identified stressor. Adopting coping mechanisms that are achievable and applicable can decrease the risk of psychological stress and preserve mental health and physical well-being (Mheidly, 2020). The very characterization of coping strategies as responses to a specific challenge demonstrates their situational specificity. This has led in recent years to the adoption of an approach based on the flexibility of coping, under the supposition that a single individual can combine different strategies, using one or the other depending on the specific situation they are facing (Kobylińska & Kusev, 2019). Rilveria (2018) suggests preference of which coping strategies to adopt and the frequency of use of the strategy will vary from person to person. Some examples include: active coping, effective time management, and participation in extracurricular activities to mention a few.

The many coping mechanisms are typically divided into the fundamental categories of problem-focused, emotion-focused, and adjustment-focused coping (Hatunoglu, 2020). Emotion focused strategies are those that assist the person in reducing the negative emotional response associated with stress, such as embarrassment, fear, and anxiety to name a few (for example, by positive reappraisal and seeking emotional support) based on the perceived controllability of the stressor facing them (Siltanen et al., 2019). Problem focused strategies are highly action focused and involve modifying or managing the problem that is causing the stress for example, by planning and seeking instrumental support (Hatunoglu, 2020).

Coping strategies can also be generally categorized into two broad types, namely: approach (also called active) strategies and evasive (or disengagement) strategies.

Approach strategies involve cognitive and behavioural mechanisms aimed at making an active response to the stressor, directly changing the problem (primary control) or the

negative emotions associated with it (secondary control). This category includes strategies such as planning, taking specific action, seeking support (instrumental and emotional), positive reappraisal of the situation, or acceptance (Zimmer-Gembeck & Skinner, 2016).

Evasive strategies are those which involve cognitive and behavioural mechanisms used to evade the stressful situation, such as distraction, denial, and wishful thinking (Zimmer-Gembeck & Skinner, 2016). Based on this classification, there is a broad consensus that approach strategies are related to good academic, physical, and psychological adjustment (Gustems-Carnicer et al., 2019), whereas evasive strategies usually mean maladaptive consequences for the students (Freire, 2020; Tran & Lumley, 2019).

Information about the stressors that students experience during their years of university study will be provided by this research. Also, it aims to identify the stress coping mechanism employed by undergraduate students of University of Benin.

1.2 Statement of problem

Students are one of the most vulnerable groups to stress, as they often encounter stressful situation in their academics. Physical demands of their daily activities in school could result in fatigue, pains and strains. Mentally, the students may have reduced academic performances. Emotionally, they may not be motivated and focused academic wise. All these notwithstanding, the students are still confronted with issues like resource constraints and financial constraints. These also add to the workload expended by the student. The physiological, mental and emotional harm caused by stress can adversely affect their performance (for example, in their grades). A student under stress will be indifferent to academic demand. More so, they may be withdrawn, behave negatively, most often absents themselves from school, and may be faced with the feelings to defer or quit the school. The major concern of this work was “how do students cope or handle stress at the school and

what are those demographic variables that determine coping strategies used by them?” This study intended to find answers to the above questions.

1.3 Objective of the study

The broad objective of the study is to determine the stress coping strategies used by undergraduate students in selected departments in the School of Basic Medical Science, University of Benin, Benin City. Specifically, the objectives of the study are to:

- i. Determine the level of perceived academic stress experienced by undergraduate students in selected departments in School of Basic Medical Science, University of Benin.
- ii. Determine the factors that predispose undergraduate students to stress in selected departments in School of Basic Medical Science, University of Benin.
- iii. Identify the stress coping strategies used by undergraduate students in the selected departments in School of Basic Medical Science, University of Benin.

1.4 Research questions

This research intends to address the following questions

- i. What is the level of perceived academic stress experienced by undergraduate students in selected departments in School of Basic Medical Science, University of Benin?
- ii. What are the factors that predispose undergraduate students to stress in selected departments in School of Basic Medical Science, University of Benin?
- iii. What are the stress coping strategies used by undergraduate students in selected departments in School of Basic Medical Science, University of Benin?

1.5 Research hypothesis

There is no significant relationship between stress coping strategies and the students' age and sex.

1. 6 Significance of the Study

This study is of utmost importance to undergraduates as it will provide a valid information on how students in the tertiary institutions manage stress at school. It could help people working with students to know how they manage and how to help/ advise them if they use unhealthy coping strategies. These coping strategies will assist the students to be more effective in managing stress at school; improving and promoting their well being, academic performance, while reducing the physiological, psychological and behavioural consequences of school related stress. Findings from this study will provide literature for further studies in this area of research.

These coping mechanisms will help them manage stress at school more successfully, enhancing and encouraging their well-being and academic achievement while minimizing the physical, psychological, and behavioural effects of stress associated to school. The research findings will serve as the basis for more studies in this field.

1 .7 Scope of Study

The study is focused on stress coping strategies used by undergraduate students in Departments of Medical Biochemistry and Nursing Science in School Basic Medical Sciences (SBMS) University of Benin.

1. 8 Operational definition of terms

Operational definition of terms refers to a detailed explanation of the technical terms and measurements used during data collection. The key words used in this research include the following:

1. Stress: This is a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation. Stress can also be defined as any

type of change that causes physical, emotional or psychological strain. It is the body's response to anything that requires attention or action.

2. Academic stress: This is defined as a student's mental state resulting from unending social and self-imposed pressure in a school that reduces the student's psychological reserves.
3. Stressors: These refer to any event, force or condition that results in physical or emotional stress. It could be internal or external forces that require adjustment or coping strategies on the part of the affected individual.
4. Coping: The process of managing taxing circumstances, expending effort to solve personal and interpersonal problems, and seeking to master, minimize, reduce or tolerate stress or conflict. Coping usually involves adjusting to or tolerating negative events or realities while keeping a positive self-image and emotional equilibrium. This will be measured using a questionnaire on Perceived Stress Scale.
5. Stress coping strategies: These are strategies employed by an individual to reduce the effects of stress as he goes about his daily activities. People differ in particular styles of coping or prefer to use certain coping strategies over others. These differences in coping styles usually reflect differences in personality. These strategies include positive refraining, planning and emotional support This will be measured using a questionnaire on Perceived Stress Scale.
6. Undergraduates: Undergraduates are students of universities and colleges who are undergoing their first degree. They've graduated from secondary school and have been accepted to college, but they haven't graduated yet.
7. Demographic variables: This includes age, sex, department, level, ethnicity, religion, family type, mode of entry.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter reviews related publications including previous researches, reviews books and grey literature on the study aims. It also summarised and synthesized the arguments and knowledge of previous researches. It will be discussed under the following headings: conceptual review, theoretical framework and empirical review.

The importance of conceptual review is to categorize and describe concepts relevant to the study. Also, the development of the theoretical framework helped to clarify the implicit theory relating to stress adaptation in a manner that was more defined. Empirical review reported methods and findings of different research studies on the subject of interest.

2.1 Conceptual Review

2.1.1 Concept of Stress/Academic Stress

Hans Selye, introduced the term "stress" for the first time in 1936, he defined it as the non-specific response of the body to any need for change (as cited by Fink, 2009). In psychology, it is a type of psychological pain-that brings about emotional strain and pressure. Small amounts of stress may be desired and even healthy. Moreover, it influences motivation,

environmental sensitivity, and adaptation. Yet, extreme stress can have negative health effects. In addition to aggravating a pre-existing condition, stress can increase the risk of strokes, heart attacks, ulcers, and mental conditions including depression (Yaribeygi, 2017).

The source of stress can be internal perceptions that make someone feel anxious or other unfavourable feelings about a situation, such as pressure, discomfort, which they then perceive as stressful. Stress can also be external and related to the environment. In 1936, Hans Selye postulated four different types of stress. He places healthy stress (eustress) and harmful stress on a single axis (distress). Overstress (hyperstress) and understress are on the opposite (hypostress). Selye advises balancing these: the ideal objective would be to have the maximum amount of eustress while precisely balancing hyperstress and hypostress. Greek word eu-, which meaning "good," is the source of the word "eustress" (as in "euphoria"). When a person views a stressor favourably, eustress is the result. Also, Distress is a derivative of the Latin word dis- (as in "dissonance" or "disagreement"). Medically, distress is a threat to the quality of life. It occurs when a demand vastly exceeds a person's capabilities (Selye, 1936).

2.1.2 Neutrality of stressors

Stress is a generalized reaction. It is neutral; the degree of reaction varies. It all depends on the individual's context and how they interpret the circumstances. Stress was described by Selye as "the nonspecific (that is, common) impact of any demand upon the body, be the effect mental or physical" (Selye, 1936). This incorporates the conventional concept of stress as a psychological demand and the medical definition of stress, as a term used to describe a psychological demand in addition to a physical demand. A stressor is intrinsically neutral, which means that it can either generate eustress or distress. Distress or eustress is caused by individual variances and reactions (Bourgeois, 2018).

2.1.3 Stressors

A stressor is any event, circumstance, experience, or environmental stimulus that is viewed as a threat or a challenge by an individual and results in stress. A stressor is, in other words, the origin or cause of stress. Many factors, both internal and external, including the environment, society, psychology, and even critical life events, can be the cause of stress. Knowing these sources can aid in effective coping, stress reduction, and even stress relief (Eredoro & Egbochuku, 2019). Types of stressors include:

a. **Environmental Stressor:** This refers to the aspects of the physical environment and surrounding that disposes one to stress. These types of stressors include weather, noise, overcrowding, pollution, traffic, unsafe and substandard housing (Eredoro & Egbochuku, 2019).

b. **Social Stressor:** Social interactions are important for happiness and health, and a lot of research has shown that social stressors pose a threat to such outcomes. It is not apparent, nevertheless, whether these are truly distinct or represent a single underlying concept. Similar patterns would indicate a shared core construct, while distinct patterns of associations with health/well-being would indicate separate constructs. Any remaining differences could be attributed to situational factors like frequency or intensity. Social stresses include bad social relations with direct superiors, employees, and others. These social stressors directly communicate devaluing social messages. Moreover, social pressures may result from circumstances at work (Dreher et al., 2022).

c. **Physiological Stressor:** Internal homeostasis is disturbed by physiological reactions to stress, which has detrimental effects on one's health. High levels of stress are common among students, which should be quickly addressed to avoid negative effects on health and learning. A certain amount of stress is physiologically advantageous for preparing for upcoming difficulties and creating adaptation. Excessive stress, on the other hand, increases

the central nervous system's defence reaction and upsets the hypothalamic-pituitary-adrenal (HPA) axis. The HPA axis regulates neuroendocrine hormones, and chronic disruption of the HPA axis may result in endocrine, metabolic, and cardiovascular diseases. Also, because the HPA axis influences the sleep centers, it may result in sleep disturbances that impair a student's cognitive ability, mood, and academic performance. Chronic stress-induced altered hippocampal dysfunction has an impact on cognition and memory as well (Al-Rouq et al., 2022).

d. **Psychological Stressor:** After the coronavirus illness (COVID-19) first appeared in December 2019, it quickly spread to people all over the world (Wang & Zhao, 2020). Students were more susceptible to physical and emotional issues during the outbreak because of the strain of quarantine and the academic pressure brought on by the suspension of school. During the commencement of their online classes, students' sleep start times were generally later for every day of the week, according to a poll that Current Biology Magazine released in June 2020 (Wright et al., 2020). In general, a later bedtime is linked to worse health outcomes (Dong et al., 2020). Also, isolation made students use their devices more frequently and reduced the amount of time they spent exercising (Yasmin et al., 2020). Young people who spent more than three hours per day following COVID-19 updates, whether through the news or on mobile devices, were shown to have higher levels of anxiety and despair, which altered their normal biological sleep rhythm (Marelli et al., 2021). Students are also more prone to non-suicidal self-injury (NSSI), suicide, and other issues because they lack experience and crisis management skills. Recent research has demonstrated that NSSI is a better predictor of suicide attempts than other suicide risk factors, increasing the likelihood of suicidal ideation such as depression (Xiao et al., 2022).

2.1.4 Categories of stressors in Psychology

Any circumstance, encounter, or external stimulation that raises someone's stress levels is referred to as a stressor. These occurrences or encounters, which may be physical or psychological, are viewed as threats or difficulties for the person. Researchers have discovered that stressors might increase a person's vulnerability to both physical and psychological issues, such as anxiety and heart disease. When stressors are "chronic, highly disruptive, or viewed as uncontrollable," they are more likely to have a negative impact on a person's health (Pastorino & Doyle-Portillo, 2021).

Researchers in psychology typically divide the various stressors into two groups: crises or tragedies, and significant life events. Ursin (1988) asserts that these categories share an unresolvable contradiction between expected events (referred to as "set values") and seen events (referred to as "actual values"), which emphasizes the larger context of cognitive-consistency theory (Pastorino & Doyle-Portillo, 2021).

a. **Crises/tragedies:** This kind of stressor is unforeseeable and unpredictable, and as a result, it is entirely beyond the person's control. Devastating natural disasters, such as significant floods or earthquakes, wars, pandemics, are examples of crises and catastrophes. Even though it doesn't happen often, this kind of stressor usually adds a lot of tension to a person's life with students included. Also, students who were affected by natural disasters such as the COVID 19 pandemic significantly increased their stress levels afterward (Esterwood & Saeed, 2020).

b. **Major life events:** Common examples of major life events include: marriage, going to college, death of a loved one, birth of a child, divorce, moving houses. These events, either positive or negative, can create a sense of uncertainty and fear, which will ultimately lead to stress. For instance, research has found the elevation of stress during the transition from high school to university, with college freshmen being about two times more likely to be stressed

than final year students (Yee et al., 2018). Research has found major life events are somewhat less likely to be major causes of stress, due to their rare occurrences (Pastorino & Doyle-Portillo, 2019). According to the Institute for Health Metrics and Evaluation (IHME), 2019's findings, mental health illnesses accounted for roughly 15% of all years lived with disability worldwide in 2019 (Filiatreau, 2022). Social isolation is one of the health difficulties that these illnesses cause (Elmer & Stadtfeld, 2020)

2.1.5 Classification of stress

Stress is generally classified into two major types, including acute stress and chronic stress.

Acute stress

The most frequent type of stress that every individual encounters is acute stress, which is brought on by current or upcoming stresses. It may be both favourable and unfavourable. In response to sudden or alarming occurrences, it appears swiftly. The majority of the time, it disappears fast, either on its own or once the stressful event is over. Acute stress rarely results in significant health issues. There is nothing wrong with a student who is experiencing acute stress as long as it doesn't linger for lengthy stretches of time or happen too frequently, like the preconceived stress students feel right before tests or exams. This kind of stress is common and simple to recognize (Yasmin et al., 2020). Common signs and symptoms of acute stress include:

- i. Stomach pain from conditions like heartburn, diarrhea, or an acidic stomach.
- ii. Increased heart rate and blood pressure.
- iii. Chest discomfort or breathlessness.
- iv. Migraines, backaches, and jaw pain (Yasmin et al., 2020).

Acute stress is typically easy to manage and cure because it is so prevalent and transient. A common example of acute stress is academic stress.

2.1.6 Academic stress

According to Zárate et al. (2017, p75) "academic stress is a state that occurs when the student perceives negatively (distress) the demands of his environment, when those situations he faces during his training process are distressing and he loses control to face them and, sometimes, physical symptoms such as anxiety, fatigue, insomnia and academic expressions such as poor school performance, professional disinterest, absenteeism, and even dropout are manifested". Academic stress related to students' ability to succeed in this new environment is one particular area of concern for students in higher education. Even if the number of students taking online courses has grown over the past few years, most of them are still not familiar with it (Clabaugh et al., 2021). Various causes of academic stress among students have been found to include poor study habits and poor time management, and demands of coursework (Macan et al., 2020). Son et al., (2020), further extended the list by adding, lack of expertise which might be made worse by difficult home circumstances, such as restricted access to learning tools (such computers and internet connectivity) and interruptions in the home learning environment. In fact, the preliminary data demonstrates that at-home interruptions (such as those caused by other family members and additional responsibilities) pose a considerable problem for college students (Son et al., 2020). When these elements are considered collectively, severe academic stress and ambiguity are likely to result (Clabaugh, 2021). Among other stressors, Musselin (2018), listed intense competition in the academic setting and a lack of opportunity for students as stressors. Studies have demonstrated that stress makes students tense, afraid, and anxious (Defeyter et al., 2021; Green et al., 2021). The likelihood of failing or passing an exam, which can influence the trajectory of one's academic and professional careers, has been found to be correlated with course overload. Academic stress can be exacerbated by interpersonal interactions, personal characteristics, and the educational environment (Hirvonen, 2019). In order to help student flourish

academically and socially, a supportive academic environment is needed. The critical elements of a supportive academic environment, is one in which students are able to meet their extracurricular obligations and receive assistance that improves their interactions with faculty, staff, and the institution's management. It might be challenging to strike a balance between the additional freedoms and maintaining a good level of academic success (Khan et al., 2019).

2.1.7 Eustress/Distress

Stimuli can be either good or negative, and they are known as stressors. An individual response can be either good or negative depending on these factors. These responses determine whether the stress-related effects are bad (distress) or favourable (eustress) (Gulzar 2022).

Organizational behaviour and positive psychology are the foundations of the idea of eustress. Distress and eustress as consequences or results have been conceptualized by Selye (1936) in a way that has had significant influence. Yet, the work of Lazarus and Folkman (1984) on stress evaluation led to a shift in how academics thought about (eu) stress. The stress response was no longer considered to be a generalized, one-dimensional phenomenon but rather a sophisticated, appraising process. The occurrence of distress and eustress is identified by a person's classification of stressors as either threatening or challenging. The occurrence of distress and eustress is decided by a person's assessment of stressors, which categorizes them as either dangerous or challenging. Eustress, which manifests in the emotional, bodily, and behavioural dimensions, should be viewed as "a good response to a cognitively assessed stressor" as a result (Gulzar, 2022). Eustress, a pleasant form of stress that is connected with activation and engagement, is a state of positive emotional arousal. A harmful form of stress, distress is characterized by a state of negative emotional reactivity that is linked to discontent and disengagement. A variety of variables affect whether a given stressor is eustressful or

distressful. Distress is linked to low and high levels of demands, whereas eustress is linked to moderate levels of demands. This is consistent with the Yerkes-Dodson Law, (as cited by Quick et al., 1997), which claims that people function best at moderate levels of arousal (as opposed to low and high levels). Quick et al., (1997) used the term "eustress" to describe this ideal level of stress (Pluut et al., 2022).

2.1.8 Chronic stress

From farmers, doctors, and bank employees to university students in Canada, Egypt, and Korea, research demonstrates an empirical link between stress and depression in a variety of populations across the life course, from young adults to senior citizens (Rudolphi, 2020). Researches (Hussenoeder, 2022; Seo, 2017), have emphasized bidirectional, more complicated, and even intergenerational links between depression and stress, even while experimental investigations in particular, suggest toward a causal effect of stress on depression. Depression is linked with increasing autonomic nervous system diseases. Patients with major depressive disorder show increased baseline levels of heart rate and altered heart rate variability (Lutin, 2022). When it comes to mental health, chronic stress is a type of stress that is particularly significant. McEwen and Seeman (2019), demonstrates a link between chronic stress and other disorders and symptoms, including burnout and cognitive impairment, in addition to depression. Since chronic stress is a sort of ongoing arousal that, unlike more acute forms of stress, disables the mechanisms of relaxation and equilibrium, it is so harmful. Chronic stress is also connected to modifications in the physiology and operation of the brain (Hussenoeder, 2022).

2.1.9 Stress management and coping strategies

A predefined action-taking procedure called stress management aims to reduce a person's degree of stress (Amanvermez et al., 2022). In order to operate well, it entails gaining control

of one's thoughts, emotions, and lifestyle as a whole, including how one handles personal issues. Using a wide range of strategies and psychotherapies to effectively control stress is what stress management entails (Amanvermez et al., 2020). According to recent research, college students who participate in stress management programs and receive psychological care for common mental disorders have reductions in their levels of anxiety and depressive symptoms that are clinically meaningful as well as their perception of stress (Amanvermez et al., 2020; Cuijpers et al., 2021; Harrer et al., 2019). But due to constraints including system-related and scheduling challenges (Leviness et al., 2019), treatment uptake among college students is low (Bruffaerts et al., 2019), and access to psychological treatments for common mental disorders is constrained.

Coping was described by Lazarus and Folkman (1984) as a dynamic cognitive and behavioural endeavour to control particular internal and external demands that are deemed to be stressful or outstripping a person's capacity. In response to stressful situations or events, it is also described as a conscious and voluntary attempt to manage emotions, cognition, behaviour, physiology, and the environment. In other words, while stress management improves coping, coping itself attempts to help one master, minimize, or accept stress (Amanvermez et al., 2020). Hence, it becomes crucial for students to use effective coping mechanisms in order to help them get through a difficult scenario (Smith & Renk, 2017). Humans use a variety of coping mechanisms or ways to deal with stress; some are healthy or adaptable, while others are unhealthy or maladaptive and inefficient. Their personality, gender, social context, and even the type of stressor presents frequently have a significant impact on their decisions. Problem-focused coping and emotional focused coping are the two categories into which Lazarus and Folkman (1984) divided coping.

a. **Problem Focused Coping**

This type of coping, also known as active coping, aims to end the stressful circumstance or occurrence. It entails altering or removing the primary cause of the stress (Landy et al., 2022). Students who practice problem-focused coping are better able to manage their stress, find the necessary knowledge or aid, or leave a stressful situation. The most effective stress management strategy for students is problem-focused coping since it addresses the stress's underlying causes and offers a long-term solution. However, problem centered coping cannot be applied in every circumstance; for example, it will not help the bereaved when a loved one has passed away. When such situations occur, the most suitable and efficient form of coping at such times will be emotional centered coping. This suggests that the ability of the stressor to be modified, or changeability, affects the effectiveness of problem focused coping (Landy et al., 2022).

b. Emotion Focused Coping

This type of coping, which is passive, aims to control the negative distressing emotions brought on by stressful situations or events, that is, one modifies their emotions to tolerate or get rid of the stress. When implemented, emotion oriented coping techniques improve one's mood but do not address the underlying cause of misery, just offering a temporary solace. As problem focused coping will not help, emotion focused coping is best and most effective when it pertains to a problematic situation that is out of one's control (for example, terminal illness and abrupt death). The following are some examples of emotion-focused coping techniques: distraction, avoidance, writing, meditation, and cognitive behavioural therapy, using alcohol and other drugs, looking for social support, and having a hot bath (Eredoro & Egbochuku, 2019)

2.1.10 Stress management techniques

When used regularly, stress management techniques aid in triggering the body's relaxation response. According to Benson (1975), the relaxation response, which is the antithesis of the

fight-or-flight response, is a physiologic condition of deep rest that modifies the physical and mental reaction to stress. Techniques for managing stress are advantageous for those who are not yet showing signs of stress as well as for those who are stress-free and use them as preventative measures to deal with stress. Some strategies that are typical of them are described below:

a. **Exercise**

One key stress-reduction strategy that has been demonstrated to support healthy coping is physical activity (Kim & McKenzie, 2014). Stress hormones like adrenaline and cortisol, which are processed during physical exercise to return the body and mind to a calmer and relaxed condition, are often released into the body when we are exposed to stressful events. Exercise loosens and warms cold, tight muscles and tissues, which add to sensations of tension. In addition to enhancing blood flow to the brain, stimulating the nervous system, producing hormones and chemicals like beta-endorphins that have a good impact on how we feel, and improving sleep quality, it creates and maintains a healthy body, which immediately decreases stress and susceptibility. Also, it relieves tight connective tissues and tense muscles, which are frequently to blame for the sensations and symptoms of stress. Exercise also serves as a diversion, taking the person's focus away from the stressor, particularly when it involves a competitive activity since it forces the person to push himself more than he would otherwise. Exercises include jogging, brisk walking, swimming, rowing, biking, and dancing. Choosing an activity that one enjoys rather than dreads is crucial because any exercise can improve fitness and lessen stress (Eredoro & Egbochuku, 2019).

b. **Progressive Muscle Relaxation (PMR)**

This is another method for reducing total body tension and managing stress (Toqan et al., 2022). Reducing tension entails sequentially and methodically tensing and relaxing a particular muscle area. These muscles could be found in the arms, legs, chest, belly, neck,

back, and so on. One must exercise considerable caution when utilizing this technique to prevent injury to oneself while tensing muscles. Before using this technique, one should make an effort to seek medical advice from professionals if they have a medical condition like a bone or muscle problem that can make exercise difficult. Focusing on the difference between the stress and relaxation feelings is necessary for the mental component of PMR (Manansingh, 2019). With frequent practice, PMR teaches one to recognize how different parts of the body feel when they are completely relaxed and when they are tense, making it possible to recognize and treat the early indications of muscular tension brought on by stress (Toqan et al., 2022)

c. **Diaphragmatic Breathing**

Other terms for diaphragmatic breathing include check deep breathing, abdominal breathing, belly breathing, and timed respiration. Diaphragmatic breathing is an additional technique for promoting relaxation, it entails regulating breathing motion by contracting the diaphragm (Hopper et al., 2019). According to the University of Texas Counselling and Mental Health Center (as cited by Hopper et al., 2019), when using diaphragmatic breathing to boost the amount of oxygen that gets into the bloodstream, one can still breathe normally. It is a method for reversing the body's Fight or Flight reaction and triggering its customary calming reaction. Diaphragmatic breathing also improves physical and mental wellness because it activates the parasympathetic nervous system, which encourages calm and reduces physical stress. As an example, anxiety is characterized by small, shallow breaths that are exhaled and inhaled by the shoulder rather than the diaphragm, causing an imbalance of the body's gases (oxygen and carbon dioxide). Stress is frequently accompanied by a shift in respiratory rhythm (oxygen and carbon dioxide). Little, shallow intake of breaths can prolong worry and increase the physical effects of stress. Diaphragmatic breathing improves pulmonary function,

cardiorespiratory fitness, posture, respiratory muscle length, and respiratory muscle strength in addition to reducing stress (Hopper et al., 2019).

d. Visualization/Guided Imagery

Visualization is defined as utilizing one's innate power of imagination to stimulate perceptual experiences across the sensory modalities, such as the imagination of smell, hearing, touch, taste, and movement, to induce a state of relaxation in the body in the same way that one's thoughts that cause anger and anxiety can induce tension and stress in the body. Thus, is a stress management technique

(Stephen et al., 2021). People can employ guided imagery as a method of relaxation to lower stress and improve wellbeing. Usually, it entails visualizing calm situations, things, or scenes. The body should respond to guided visualization by becoming more relaxed naturally. Using guided imagery in stressful situations or everyday life has numerous positive effects. The use of guided imagery can be simple. It begins with a few slow, deep breaths to help you relax, and then you use your preferred technique. (Rai, 2021). Such fantasies can entail visualizing oneself in a calm, quiet, and pleasant environment or setting. It can be a genuine location that one has really been to in the past, or it might be entirely the result of one's imagination. Examples of this type of place include a beach, park, woodland, or tourist attraction (Rai, 2021).

e. Meditation

Another effective method for reducing stress is meditation, which can bring about a profound sense of relaxation and mental peace. It aids in mental calmness and the control or complete eradication of negative thought patterns, which are frequently the main contributors to stress. Moreover, it helps increase resilience and reduce stress reactivity. This results in improved mental and physical health as well as improved overall wellbeing (Munduate, 2022).

f. Social Support

Social support is another potent means of coping with stress (Guo et al., 2021). It is simply referred to as the functions performed to an individual by significant other to help cope with adversity. Such significant others include family members, friends, church and even co-workers (Guo et al., 2021).

2.2 Theoretical Framework

The theoretical framework used for this study is Transactional theory of stress and coping (TTSC). Transactional theory of stress and coping (TTSC) was proposed by Lazarus and Folkman (1984), they maintained that an individual's capacity to cope and adapt to challenges and crises is a consequence of transactions that transpire between an individual and their environment. The theory also identifies two types of appraisals that students tend to make.

I. **Primary appraisals:** The individual evaluates a precise future occurrence based on their potential influence on the student's life. Primary appraisals exist in three categories: harm, threat, and challenge. Harm refers to occurrences that result in an actual loss from the students' perspective. Threats involve hazards that students foresee may occur in the future, meanwhile, challenge refers to damage that might ensue when a student tries to negotiate with another event.

II. **Secondary appraisals:** Unlike primary appraisal which focuses on the circumstances, secondary appraisals focus more on the individual rather than the circumstances surrounding them. These appraisals are established on the choices available for the student if they choose to respond to the threat or not. Therefore, they differ on the availability of aid and resources that students use in dealing with the situation. If the solutions are limited; students may probable to experience elevated levels of stress. Secondary appraisals have two subcategories: the first subcategory include the class of students who are problem-focused and assessments are established based on the quantity and quality of solution that a student can carry out to mitigate the threat. And the second subcategory is the class of students who are emotion-

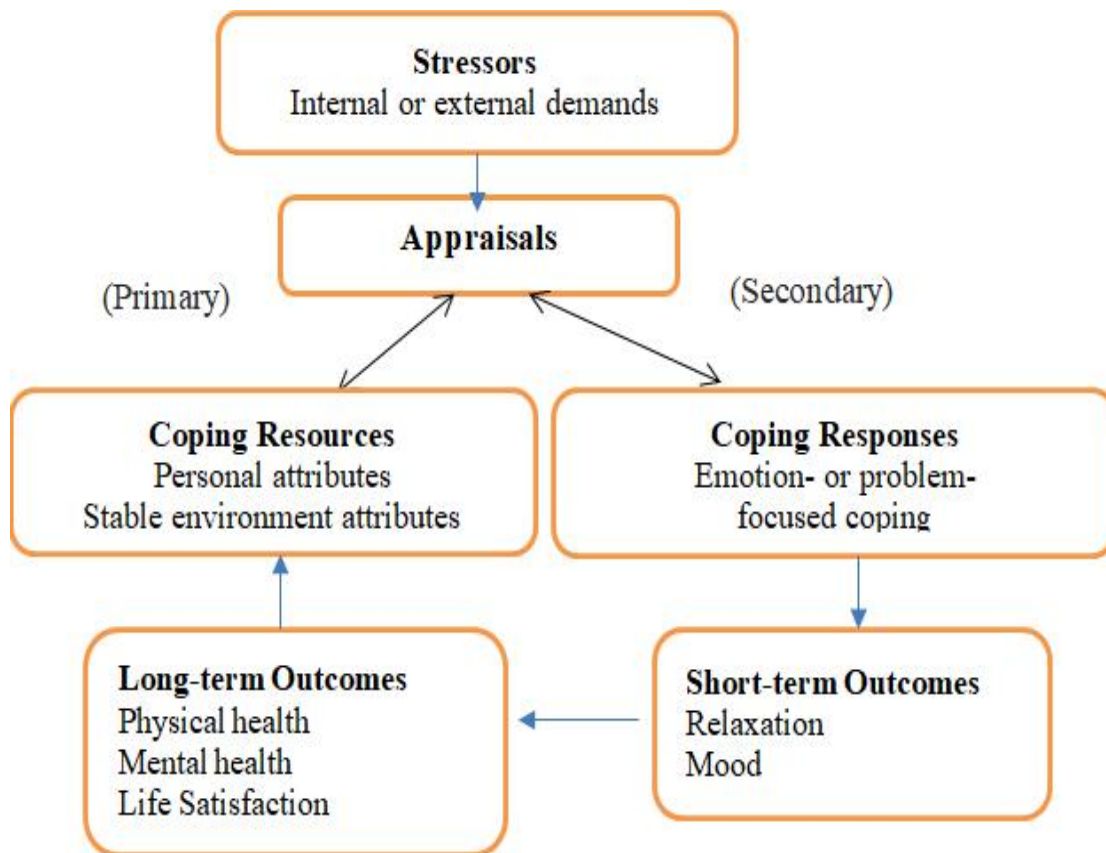
focused. It focuses more on coping strategies that students can use to manage or prevent stress.

- a. Problem focused coping: This is a problem-solving technique in which the student addresses a problem or stressor directly in an attempt to alleviate or eliminate it. It is also referred to as problem-centered coping. For example, a student who is nervous about giving a presentation at a research event may cope by practicing the presentation each night before the event, attending seminars on how to give presentations, or asking friends to listen to the presentation in order to provide feedback to make sure that they are fully prepared for the event.
- b. Emotion focused coping: This is a problem-solving technique in which an individual makes an attempt to control the negative emotional reactions that might arise when faced with a particular problem. The person will try to regulate their emotional reactions rather than trying to address the problem itself. This is often done when the problem cannot be changed or addressed. For example, a student who moves to a new state and is nervous about attending classes may attempt to regulate their negative feelings by talking with friends or family since they can't change the fact that they moved to a new school.

The transactional theory of stress and coping summarizes that stress itself originates from internal negotiations students make with the problem and even though there is the influence of external factors, the level of stress solely depends on how student emerges with their appraisals. Thus, helps the students gain better control over their moods by adjusting to how see the scenario.

Figure 2.1

Transactional Theory of Stress and Coping (TTSC) (Lazarus & Folkman, 1984)



2.3 Application of the theoretical framework to the proposed study

Transactional theory of stress and coping demonstrates the relationship between student stressors and their various coping strategies. Several factors, including age, family, level of education, school, environmental factors, and socioeconomic factors, are likely to influence their coping strategies. Environmental stimuli and coping mechanisms are closely related. There are both internal and external environmental stressors that undergraduate students must deal with. The stimuli or stressor influences the students to act—either adversely or positively—in order to overcome the difficulties through coping mechanisms. The learner can utilize either active or passive coping mechanisms to get through the difficulties. The stressors in the environment and the coping mechanisms or strategies are related to the modalities of adaptation both directly and indirectly. This implies that the coping

mechanisms used by English and Literature students and nursing students will be influenced by the stress they perceive. Consequently, the degree of adaptability is affected. The degree of adaptation will depend on the students' capacity to handle stress, which can be seen in both their interpersonal interactions and academic performance.

The knowledge of this theory to the study will enable undergraduate students in identifying stressors that are more or less important, that may arise as they go about their daily activities, how to minimize stressful situations and also help the student in effective management of stress in order to improve their academic performance.

2.4 Empirical Review

A number of studies have been done to examine the level of perception of academic stress among undergraduate students. Most of these works used qualitative designs to assess the causes of stress and coping strategies utilized by undergraduate students in various institutions across the globe.

Level of perception of academic stress by undergraduate students

A cross-sectional correlational descriptive study by Onieva-Zafra et al. (2020) investigated on anxiety, perceived stress and coping strategies among nursing students. The sample consisted of 190 nursing students enrolled in the Nursing Faculty of Ciudad Real University in Spain. Results showed that approximately half of the students (47.92%) indicated a moderate level of stress. In contrast, Abasimi et al. (2018) in their study among nursing students of Nursing Training College Tamale, Ghana, reported severe level of stress amongst students. Similarly, Bektas et al. (2018) in their research in Turkey with a population of ninety nursing students reported that students had significantly higher (severe) level of stress in clinical practice. More so, Kashmoola (2016) in his study in Dubai reported low levels of stress due to a moderate level of social support received while Yikealo et al. (2018) study in Eritea, East Africa, on level of stress among college students reported that there was a moderate level of

stress among the students. Out of the five domains, academic and environmental stressors were found contributing most to the students' level of stress. Besides, the students' levels of stress were found to have no statistically significant associations with their gender and grade point average.

Another study done by Octasya and Munawaroh (2021) on the level of academic stress among students of Guidance and Counselling Department, Semarang State University reported that students experienced signs of academic stress that have an impact on their physical, emotional, behavioural, and mental health, as well as a number of external and internal (self-) and internal (environmental) elements that affect academic stress (externally). The study's findings indicate that when respondents receive assignments from their professors, their stress level either stays the same or rises. A cross-sectional study by Rehman and Baluja (2021) to evaluate the knowledge, attitude and practice of stress management among 254 undergraduate medical students at tertiary care teaching hospital, New Delhi, reported that majority were females and 28.4% students gave a relevant definition of stress. The most common condition related to stress is anxiety (79.6%). Only 37.4% of students could answer the correct clinical features of stress. Further more, the cross-sectional studies by Gustems-Carnicer et al. (2019) and Satpathy et al. (2021) showed that 41% of the participants suffered from psychological stress which correlated directly with depressive symptoms and 84% of respondents were in severe stress, particularly with the academic related stressors respectively. However, in a cross-sectional study conducted by Samson-Akpan et al. (2017) on Undergraduate students' reported stress levels and coping mechanisms among 154 students in University of Calabar, Nigeria showed that 52.6% of respondents had high levels of stress while 47.4% had low levels of stress. The results also showed that majority entered through the Unified Matriculation Examination (UME), 42.9% of students who entered by direct entry had high levels of stress, while 47.7% of respondents who entered through UME

and all transfer students had high levels of stress as well. Samson-Akpan (2017) pointed out that the respondents suffered from high level of stress. Both diploma and undergraduate nursing students face same high level of stress. Ajibade et al (2016) in a study conducted amongst nursing students selected from schools in southwest, Nigeria reported mild level of stress. However, in Punjab, Rajesh (2015) reported that nursing students experienced moderate stress.

Causes of stress/ stressors among undergraduate students

Edjah et al. (2020) utilised a cross sectional study to assess the impact of stress on the academic and social life among 500 undergraduate students in University of Cape Coast Ghana. The results showed that majority of the students (93.4%) were moderately stressed, 6% were highly stressed and 0.6% had low levels of stress. Among the stressors identified were academic stressors, institutional stressors and external stressors.

Another cross-sectional study by Rehman and Baluja (2021) to evaluate the knowledge, attitude and practice regarding stress management among 254 undergraduate medical students at tertiary care teaching hospital, New Delhi, reported that most common stressors were large syllabus (124%), less study time (28.7%) followed by apprehension to viva-voce. 72.7% of students reported that they have faced difficulties in adapting to the new environment and feeling home sickness, which was particularly seen in first-year students. Lack of friends (58.6%) was the most common non-academic cause of stress. 64.9% students had confronted stress because of competition related stress. However, the study by Lavoie-Tremblay et al. (2020), on sources of stress and coping strategies among undergraduate nursing students at the University of Montreal, Canada. Findings showed that the sources of stress differed according to year of study and related significantly to the specific novelty of that year. For first-year students, their stress was related to their academic courses. High clinical performance expectations and a lack of time for their personal lives was a main

source of stress for second-year students. The prospect of graduating and transitioning into the work environment caused stress for students in their final year. The findings suggest that interventions can be developed to address the sources of stress experienced by nursing students in each year of study. Also, a study conducted by Xu and Wang (2022) on 780 Chinese students on the relationships of creative coping and college students' achievement emotions and academic stress, showed that stressors include academic rivalry, learning efficacy pressure from school work stress, worry about the future and class room environment.

Stress coping strategies used by undergraduate students

Hailu (2020) investigated the practice of stress management behaviours and associated factors among 633 undergraduate students of Mekelle University, Ethiopia. The study found that the practice of stress management behaviours among the students was poor 367(58%) and good 266(42%) respectively. The study also indicated that the socio-demographic variables such as sex, year of education, monthly income, self-efficacy status, and social support status were significant predictors of stress management behaviours of college students.

A study by Ajibade et al. (2016), on stress, types of stressors and coping strategies amongst 285 students in school of nursing in south-west, Nigeria, findings showed that majority of responders (87.7%) were female, with a mean age of 20.24 ± 2.3 . Stress levels were reported as mild (50.2%), moderate (33.7%) and severe (16.1%). The most prevalent stressor among those reported, was assignment/workload stress. Total stress and the respondents' overall coping behaviours are positively correlated with one another. The study also found that the respondents used suitable coping mechanisms to deal with low levels of stress exposure. However, a cross-sectional survey done by Friere et al. (2020), on coping strategies and self efficacy in university students in A-Corua University, Spain, consisted of 1072 students with

ages ranging from 18 to 48, of which majority of the respondents were female (74.2%). Results showed that coping mechanisms do not operate in isolation but rather as a unit. The findings from this study is also similar to the findings of Dexter et al. (2018) who suggested that it is crucial for students to have a variety of coping mechanisms at their disposal so they can respond appropriately to the challenges they are facing, the freshman and sophomores deal with stress less effectively than juniors and seniors. Peer support and spiritual affiliation helped decrease stress, whereas, irrational eating, procrastination, and the Internet addiction were ineffective means of coping. These students are known to utilize many coping strategies such as ventilation, diversion, relaxation, self-reliance, social peer group support, avoidance, praying, day dreaming among others. Dexter et al., (2018), in their research in USA among undergraduate students in a college stated that students deal with stressors in positive and negative ways. The positive ways they dealt with stress included exercise, depending more on faith, and telling themselves that everything will be okay. The negative ways included eating more, sleeping less, increased use of the Internet and more procrastination, as reported by Anye, et al. (2013) in a study conducted in America. Their findings revealed that spirituality has been widely accepted as a dimension or component of health or wellness, thus proving to be an effective coping strategy. Similarly, a research conducted in Jordan by Khejan, et al. (2014) among 597 students, reported that most of the stress came from nursing staff and teachers and the most common coping strategy utilized was problem solving. In line with this Bektas, et al. (2018), in their research in Turkey with a population of 90 nursing students stated that students had significantly higher stress in clinical practice. The most common strategy was still problem-solving approach which included listing priorities and making plans to solve stressful events like adjusting their time tables. Labrague (2017) considered problem solving approach as the most appropriate coping strategy used by students to combat stress.

2.5 Summary of literature review

From the above literatures reviewed, different concepts of stress by various authors including the types, stressors and various coping strategies were also included in the conceptual review. A major stress identified from the literature review was academic stress. Academic stress is a state that occurs when the students perceives negatively (distress) the demands of their environment, when those situations they face during the training process are distressing and loses control to face them and, sometimes, physical symptoms such as anxiety, fatigue, insomnia and academic expressions such as poor school performance, professional disinterest, absenteeism, and even dropout are manifested. Various coping strategies included in the study include the use of exercise (physical and deep breathing) as well as problem focused and emotion focused coping approaches. The theoretical framework used for the study was Transactional theory of stress and coping (TTSC) which was proposed by Lazarus and Folkman (1984), they maintained that an individual's capacity to cope and adapt to challenges and crises is a consequence of transactions that transpire between an individual and their environment. Lastly, empirical literature review showed previous related literature on the topic, including their method of data analysis, population study and results of their study.

CHAPTER THREE

METHODOLOGY

3.0 INTRODUCTION

This section describes the methods and procedures the researcher adopted in conducting this study. The various components of research methodology is discussed under the following sub-headings: research design, research setting, target population, sample size and sampling techniques, instrument for data collection, validity and reliability of the instrument, ethical consideration, method of data collection, and method of data analysis.

3.1 Research Design

A research design is a collection of techniques and procedures used to gather and analyse measurements of the variables listed in the study (Kirumbi, 2018). A descriptive cross-sectional research design was used to investigate the perceived utilization of stress coping strategies used by undergraduate students. It was chosen as the best methodology for this study because it is the least expensive and most suited for learning.

3.2 Research Setting

The environment in which data gathering occurs in a study is known as the research setting (Jilcha, 2020). This include the physical, social, and cultural setting in which the investigation is being conducted. The proposed study was conducted, among students of the Department of Medical Biochemistry and the Department of Nursing Science at the School of Basic Medical Sciences (SBMS) at the University of Benin (UNIBEN), Edo State Nigeria. The University of Benin is a reputable higher institution that was established in 1970 as an institute of technology, and was granted the status of a full-fledged university on July 1st, 1971 by the National Universities Commission (NUC). There are 13 faculties and a school of

child health at the university. The University of Benin also have two campuses located at Ugbowo in Ovia North East Local Government Area and Ekevwan campus in Local Government Area. The faculties are, Faculties of Agriculture, Arts, Education, Social Science, Management Science, Pharmacy, School of Basic Medical Science, Medicine, Life Science, Physical Science, Law, Engineering and Veterinary Medicine. The School of Basic Medical Science (SBMS) took off in the 2003/2004 academic session with the Departments of Anatomy, Physiology and Medical Biochemistry. This was accelerated by the facilities and staff on ground. Presently, there are seven departments at the SBMS, including the Departments of Anatomy, Medical Biochemistry, Medical laboratory Science, Nursing Science, Physiology, Physiotherapy and Radiography/Radiation Science.

The Department of Medical Biochemistry has a programme consisting of four academic sessions. At the end of the programme, a bachelor of science is conferred on successful students. Also, the Department of Nursing Science started in 2007/2008 academic session with an initial student enrolment of 20 through the Joint Admission and Matriculation Board (JAMB) and Post University Matriculation Board (Post UTME). The programme was established as a response to the national need of nursing manpower development, towards development of polyvalent graduates who will provide quality care in health care delivery, and runs for five academic sessions.

3.3 Target Population

According to Majid (2018), the term 'target population' refers to the entire group of people, things, or scores from an investigation that the researcher is interested in examining. The target population of the study comprised of all nursing students in Department of Nursing, and all students in Department of Medical Biochemistry in School of Basic Medical Science, UNIBEN in Edo State totalling 1061. This target population was chosen because the

researcher is an undergraduate student of Department of Nursing Science and Medical Biochemistry students were easily accessible to the researcher.

3.4 Sample size

A sample of a study represents a subset of the population. It is a portion of the population that has been chosen to take part in a research study. It describes the chosen set of factors, such as people, groups, or organizations (Taherdoost, 2021). The number of people or participants chosen for the study from which general conclusions will be drawn is known as the sample size (Taherdoost, 2021). In this study, the finite population is 1061 students from Medical Biochemistry and Nursing Science, SBMS. The level of precision/significance assumed was 0.05. The sample size was calculated using Taro Yamane (1967) formula as stated below.

(Yamane,1967).

Where;

n = sample size

N = population size

e = level of precision (confidence interval)

$$n = \frac{N}{1 + Ne^2}$$

$e = 0.05$

$$n = 1061 / (1 + 1061(0.05^2))$$

$$n = 1061 / 1 + 2.6525$$

$$n = 1061 / 3.6525$$

$$n = 291$$

With 10% attrition rate, which is 29.1

$$n = 291 + 29.1 = 320.1$$

The sample size for this study is 320 students in the selected departments (Nursing Science and Medical Biochemistry in SBMS)

3.5 Sampling Technique

The number of students from each level that participated in the study was calculated using the formula:

$$\text{Sample size} / \text{Population size} \times \text{Stratum size}$$

Table 3.1

Population of selected departments

Level	Population	Number of students to be sampled	Approximate number of students to be sampled
Nursing Science			
100	70	$(70/1061) \times 320$	21
200	178	$(178/1061) \times 320$	54
300	148	$(148/1061) \times 320$	45
400	98	$(98/1061) \times 320$	30
500	83	$(83/1061) \times 320$	25
Medical Biochemistry			
100	120	$(120/1061) \times 320$	36
200	142	$(142/1061) \times 320$	42
300	110	$(110/1061) \times 320$	33
400	112	$(112/1061) \times 320$	34
Total	1061		320

For this study, the researcher used purposive sampling method to select the department of Nursing Science and Department of Medical Biochemistry. Convenience sampling technique

was then used to select the 320 students out of 1061 which constituted 30.16% of the respondents. Participants were chosen based on their availability.

Inclusion criterion

To be eligible to participate in the study, the respondent must be a student of Medical Biochemistry and Nursing Science. The study will be opened to both male and female students of the specified department who are willing to participate voluntarily in the study.

3.6 Instrument for Data Collection

Data collection tool is an instrument used to collect data needed to address research questions (Chinweuba et al., 2014). The instrument for data collection in this study was a self-structured questionnaire (Appendix I). It includes set of questions and secured answers that respondents from a specific population fill to give to the researcher about the information needed for the study (Pandey & Pandey, 2015). The questionnaire was constructed in four (4) sections:

Section A covered the demographic characteristics of the participants and contains ten items. Section B consisted of fifteen questions which assessed the level of perceived academic stress among undergraduate students, and was assessed using a four-point Likert scale (strongly disagree, disagree, agree, strongly agree) format. Section C determined the factors that predispose undergraduate students to stress, comprising of fifteen items and was assessed using a yes or no response. Section D determined various stress coping strategies likely to be used by undergraduate students, comprising of twenty-two items and was assessed using a four-point Likert scale (never, rarely, sometimes, always) format.

A copy of the questionnaire can be found in Appendix I.

3.7 Validity of the Instrument

The degree to which a research tool measures what it is intended to measure is referred to as validity (Rozali et al., 2022). Face and content validity was used to validate the questionnaire. To ensure the validity of the instrument, it was structured by the researcher based on the topic's literature review to cover the stated objectives of the study. This helped by ensuring that the measures developed in the instrument were relevant and appropriate. The project supervisor was consulted to scrutinize the questionnaire as well as an expert in the field of statistics. Due correction was made before it was distributed.

3.8 Reliability the Instrument

The degree to which a research tool yields reliable and consistent results is referred to as reliability (Creswell & Cresswell, 2018). If the behaviour is measured again using the same scale, a reliable instrument will yield the same results (Rozali, et al., 2022). According to Creswell and Cresswell (2018), there are several approaches to evaluate a measuring tool's dependability. A pilot study was conducted among thirty (30) students (ten each) from 300level-500level, Department of Medical Laboratory Science, SBMS, UNIBEN, because they had similar characteristics with the nursing students. Cronbach alpha was used to statistically determine the reliability of the instrument and a Cronbach alpha value of greater than 0.7 was considered reliable.

3.9 Method of Data Collection

Data collection for this study was done through the administration of questionnaires to students in Nursing Science and Medical Biochemistry, SBMS, UNIBEN, during the break time, between the hours of 12 p.m. and 1 p.m., after it had been explained to them, and their consent had been obtained. They were also given adequate time to fill the questionnaire. Confidentiality was maintained as the identity of the participants was protected and

undisclosed during the course of data collection. The questionnaire was then retrieve immediately upon completion of the questionnaires by the respondents and scanned through to detect any omission of answers. The process was carried out within two weeks, from April 12th to April 23rd 2023.

3.10 Method of Data Analysis

Data analysis is a technique for condensing and organizing data to produce findings that the researcher must interpret (Flick, 2020). The International Business Machine (IBM) Statistical Package for Social Science (SPSS) version 26.0 for windows was used to code, enter, and analyse the data. All questions were individually analysed, taking into considerations all the available factors and supported with descriptive and inferential analysis. Frequency, percentages, mean and standard deviation and graph were also used for the analysis of the data. Results were presented using tables and charts. Using the Chi-square (χ^2) test of association and the Analysis of Variance (ANOVA), the hypothesis was evaluated. $P < 0.05$ served as the cut-off for the level of significance.

3.11 Ethical Consideration

The ethical principles of research include certain requirements for the researcher: these are the research information given by the participants, voluntary and autonomous participation and the possibility to withdraw at any time they wish (Taherdoost, 2021). Here, a written permission was obtained from the ethics and research committee of SBMS UNIBEN. A copy of the ethical approval can be seen in appendix II. An information sheet and an informed consent form are present in appendix III and IV respectively

The following ethical considerations were maintained during the research exercise:

- i. **Confidentiality:** The information provided by respondents was treated with utmost confidentiality, hence, no name or an address was requested for in the questionnaire.

Respondents were made to understand that their responses to the questionnaire remained completely confidential and that the observations are intended to be used only for scientific research purposes solely. To maintain this confidentiality and anonymity, no personal identifier was used or indicated on any document or questionnaire.

- ii. **Avoidance of harm:** The researcher took proactive steps to prevent harm or minimize the risk of harm to respondents and the environment. This involved avoiding activities or decisions that could cause harm, implementing safety measures to prevent accidents and ensuring that all potential risks were identified and adequately addressed.
- iii. **Self-determination/ voluntary participation:** The respondents had the right to voluntarily decide whether to participate in the study or not without the risk of incurring any penalty or prejudicial treatment. They were given the right to decide at any point during the study to withdraw their participation or refuse to provide any information on any point that was not clear to them.
- iv. **Plagiarism:** All authors used in this study were appropriately cited both in the body of the work and at the reference list. All definitions, statements and sentences were also paraphrased in the researcher's own words.
- v. **Informed consent:** The purpose and benefit of the study were explained to the respondents to obtain their informed consent.

CHAPTER FOUR

RESULTS

4.1 INTRODUCTION

This chapter presents the results of the data analysis to answer the research questions and test of hypothesis. and answering of the research questions based on responses obtained from the questionnaires administered to 320 undergraduate students in Department of Medical Biochemistry and Department of Nursing Science, SBMS, University of Benin, Benin City. Frequencies and percentages presented in tables were used to analyze the data. Chi-square was used to test the stated hypothesis of the study.

Out of a total of 320 questionnaires distributed to the respondents, only 292 questionnaires were duly filled and returned, this is about 94.4% response rate. The remaining 6.6% that was

not used in this research was as a result of incorrectly filled response in certain items in the questionnaire or not returned back to the researcher.

Table 4.1***Demographic characteristics of respondents n=292***

Variables	Attributes	Frequency n=292	Percentage (%)
Age (Years)	16 – 19	51	17.5
	20– 24	180	61.6
	25– 29	52	17.8
	30 and above	9	3.1
Sex	Male	83	28.4
	Female	209	71.6
Marital status	Single	275	94.2
	Married	15	5.8
Department	Medical Biochemistry	123	42.1
	Nursing Science	169	57.9
Level	100	54	18.5
	200	85	29.1
	300	75	25.7
	400	54	18.5
	500	24	8.2
Ethnicity	Hausa	7	2.4
	Igbo	65	22.3
	Yoruba	43	14.7
	Edo	130	44.5
	Others	47	16.1
Religion	Christianity	285	97.6
	Islam	4	1.4
	African Traditional	0	0.0
	Pagan	3	1.0
Type of Family	Monogamy	241	82.5
	Polygamy	26	8.9
	Single parent home	25	8.6
Residence	On campus	122	41.8
	Off campus	137	46.9
	Home	33	11.3
Mode of Entry	UTME	228	78.1
	Directly entry	29	9.9
	Relocation/Transfer	35	12.0

Table 4.1 shows demographic characteristics of respondents. More than half (n=180, 61.6%) of the respondents were within the age range of 20-24 years and only 3.1% were above the

age of 30 years. Most of the respondents were females (71.6%), and were from Department of Nursing Science (57.9%). Majority of the respondents (94.2%) were single. Respondents in 200 level have the highest representations in the study (29.1%), while those in 500 level have the least representation (18.2%). Respondents were fewest in Yoruba (24.7%). Furthermore, majority (97.6%) of the participants were christians. More than half (82.5%), were from monogamous homes. About 46.9% of respondents reside in off campus housing and n=35 (12.0%) got admitted via relocation/ transfer UTME.

Table 4.2

Perceived Academic stress n =292

	Strongly disagree	Disagree	Agree	Strongly agree	Mean	Std. Deviation
Competition with my peers for grades is quite intense	47(16.1)	102(34.9)	96(32.9)	47(16.1)	2.49	0.95
My lecturers are concerned about my academic performance	34(11.6)	102(34.9)	129(44.2)	27(9.2)	2.51	0.82
Teachers have unrealistic expectations of me	52(17.8)	149(51.0)	66(22.6)	25(8.6)	2.22	0.84
The unrealistic expectations of my parents stress me out	71(24.3)	108(37.0)	77(26.4)	36(12.3)	2.27	0.97
The time allocated to classes and academic work is enough	62(21.2)	81(27.7)	101(34.6)	48(16.4)	2.46	1.00
The size of the curriculum (workload) is excessive	13(4.5)	51(17.5)	110(37.7)	118(40.4)	3.14	0.86
I feel unable to cope with all things that should be done	27(9.2)	98(33.6)	123(42.1)	44(15.1)	2.63	0.85
The examination questions are usually difficult	17(5.8)	120(41.1)	111(38.0)	44(15.1)	2.62	0.81
Examination time is short to complete the answers	12(4.1)	72(24.7)	134(45.9)	74(25.3)	2.92	0.81
Examination periods are very stressful to me	9(3.1)	45(15.4)	129(44.2)	109(37.3)	3.16	0.79
I'm confident that I will be a successful student	2(0.7)	26(8.9)	73(25.0)	191(65.4)	3.55	0.68
I am able to deal successfully with day to day problems and annoyances	21(7.2)	53(18.2)	141(48.3)	77(26.4)	2.94	0.86
I fear failing courses this year	83(28.4)	60(20.5)	81(27.7)	68(23.3)	2.46	1.13
I think that my worry about examinations is weakness of character	70(24.0)	109(37.3)	84(28.8)	29(9.9)	2.25	0.93
Even if I pass my exams, am worried about getting a job	135(46.2)	92(31.5)	45(15.4)	20(6.8)	1.83	0.93
Grand mean				2.63		

Table 4.2 shows perceived academic stress. My lecturers are concerned about my academic performance had a mean and St.D of 2.51±0.82. The size of the curriculum (workload) is excessive had a mean and St.D of 3.14±0.86. I feel unable to cope with all things that should be done had a mean and St.D of 2.63±0.85. The examination questions are usually difficult had a mean and St.D of 2.62±0.81. Examination time is short to complete the answers had a mean and St.D of 2.92±0.81. Examination periods are very stressful to me had a mean and St.D of 3.16±0.79. I'm confident that I will be a successful student had a mean and St.D of

3.55±0.68. I am able to deal successfully with day to day problems and annoyances had a mean and St.D of 2.94±0.86. The aforementioned listed items had means that were statistically significant at mean significance level of (≥ 2.5), this indicates that these items were associated with perceived stress of respondents.

Table 4.3

Factors of Stress n=292

	Yes (%)	No(%)
Examinations	256(87.7)	36(12.3)
Assignments deadline	201(68.8)	91(31.2)
Returning to classes after a long strike/ break	171(58.6)	121(41.4)
Pressure of combining paid job and study	159(54.5)	133(45.5)

Poor time management (on the part of the student)	185(63.4)	107(36.6)
Pressure from family and friends	153(52.4)	139(47.6)
Leaving assignments to the last minute	176(60.3)	116(39.7)
Not taking enough break for self-care	187(64.0)	105(36.0)
Overcrowding in hostel/ lodge	138(47.3)	154(52.7)
Noise in hostel/ lodge	168(57.5)	124(42.5)
Poor sleeping habits(sleeping less than 6 hours per day)	214(73.3)	78(26.7)
Difficulties with interpersonal relationships (for example, with colleagues or lecturers)	145(49.7)	147(50.3)
Difficulty in adapting to a new environment / hostel	134(45.9)	158(54.1)
Financial difficulties	189(64.7)	103(35.3)
Lack of confidence of during classes	130(44.5)	162(55.5)

Table 4.3 shows sources of stress as reported by respondents. Majority of the respondents (87.7%) identified that a source of stress was examinations, 201(68.8%) reported it was assignments deadline, 44.4% of the respondents reported it was returning to classes after a long strike/break, 159(54.5%) reported it was pressure of combining paid job and study, 185(63.4%) reported it was poor time management (on the part of the student). Also, 52.4% reported it was pressure from family and friends, 176(60.3%) reported it was leaving assignments to the last minute, 187(64%) reported it was not taking enough break for self-care, 138(47.3%) reported it was overcrowding in hostel/lodge, 168(57.5%) reported it was noise in hostel/lodge, A few number of respondents (26.7%) reported it was poor sleeping habit sleeping less than 6 hours per day), n=145 respondents reported it was difficulties with interpersonal relationships (for example with colleagues or lecturers), 134(45.9%) reported it

was difficulty in adapting to a new environment/hostel 189(64.7%) reported it was financial difficulties, and 55.5% of the respondents reported it was lack of confidence during classes.

Table 4.4

Stress Coping Strategy n=292

	Never	Rarely	Sometimes	Often
Saying mean things to people	169(57.9)	73(25.0)	43(14.7)	7(2.4)
Let off steam by complaining to friends and family	47(16.1)	79(27.1)	110(37.7)	56(19.2)
Get angry and yell at people	144(49.3)	107(36.6)	31(10.6)	10(3.4)
Go to see a movie	59(20.2)	88(30.1)	110(37.7)	35(12.0)
Play video games	92(31.5)	94(32.2)	69(23.6)	37(12.7)
Use drugs	238(81.5)	25(8.6)	20(6.8)	9(3.1)
Listen to music	10(3.4)	28(9.6)	89(30.5)	165(56.5)

Read books, novels	17(5.8)	68(23.3)	103(35.3)	104(35.6)
Go shopping	54(18.5)	134(45.9)	78(26.7)	26(8.9)
Watch TV	27(9.2)	97(33.2)	101(34.6)	67(22.9)
Sleep	7(2.4)	27(9.2)	121(41.4)	137(46.9)
Log in on any social media platform	5(1.7)	23(7.9)	78(26.7)	186(63.7)
Relaxing	4(1.4)	25(8.6)	123(42.1)	140(47.9)
Work on a hobby	8(2.7)	74(25.3)	145(49.7)	65(22.3)
Eat food	13(4.5)	54(18.5)	96(32.9)	129(44.2)
Drive around in a car	162(55.5)	69(23.6)	37(12.7)	24(8.2)
Talk to a psychologist	205(70.2)	53(18.2)	28(9.6)	6(2.1)
Talk to a pastor/ imam	150(51.4)	44(15.1)	74(25.3)	24(8.2)
Pray	16(5.5)	17(5.8)	84(28.8)	175(59.9)
Joke and keep a sense of humour	19(6.5)	61(20.9)	108(37.0)	104(35.6)
Try to be funny and take things lightly	17(5.8)	76(26.0)	105(36.0)	94(32.2)
Attending a comedy show	151(51.7)	86(29.5)	32(11.0)	23(7.9)

Table 4.4 shows stress coping strategy among respondents. It was reported by (2.4%) that they often said mean things to people, (19.2%) reported they often let off steam by complaining to friends and family, (3.4%) reported they often got angry and yell at people. Only (1%) of the respondents reported they often go to see a movie, and (12.7%) reported they often play video games. Just (3.1%) reported they often use drugs, and a little more than half (56.6%) reported they often listen to music, (35.6%) reported they often read books/novels, and (8.9%) reported they often go shopping. Only (2.9%) reported they watch often TV, (46.9%) reported they often sleep, (63.7%) reported they often log in on any social media platform, (47.9%) reported they often relaxed, (22.3%) reported they often worked on a hobby, (44.%) reported they often ate food, (8.2%) reported they often drove around in a car. About (70.2%) reported they often talked to a psychologist, while (51.4%) reported they

often talked to a pastor/imam, and (59.9%) reported they often prayed. (35.6%) reported they often joke and keep a sense of humour, (32.2%) reported they often try to be funny and take things lightly, and (7.9%) of the respondents reported they often attend a comedy show. This means that a good number of the respondents never attended a comedy show as a means of stress coping strategy.

4.2 Hypotheses Testing

Table 4.5

Mean comparison of coping strategy by age group of respondents

	Mean	Std. Deviation	F	p
16 – 19	55.43	6.01	1.468	0.223
20– 24	55.24	6.87		
25– 29	57.35	6.72		
30 and above	57.00	6.95		

Table 4.5 shows the mean comparison of coping strategy by age group of respondents. It shows that there is no significant difference in the mean coping strategy employed by the respondents by age group. We therefore accept the null hypothesis

Table 4.6

Mean comparison of coping strategy by sex of respondents

	Mean	Std. Deviation	t	p
Male	55.21	6.41	0.794	0.428
Female	55.90	6.86		

Table 4.6 shows the mean comparison of coping strategy by age group of respondents. It shows that there is no significant difference in the mean coping strategy employed by the respondents by sex. We therefore accept the null hypothesis

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 INTRODUCTION

This chapter provides the discussion of findings in accordance with the research questions and hypothesis, implications for nursing, summary, conclusion, recommendation and suggestion for further studies.

5.1 Discussion of Findings

5.1.1 Demographic Data

The findings of the study showed that the highest percentages for the age distribution of respondents were between the ages of 20-24 years 180(61.6%), majority of the respondent were females 209(71.8%) and a lot of them were single 275(94.2%). Most of the respondents were Christians 285(97.6%) and a good number of the respondents were from 200level 85(291%) and this is because they were the most populated level. Other items in the Table 4.1 showed that majority of the respondents resided off campus 137(46.9%) and finally a vast number of the respondents came in through Unified Tertiary Matriculation Examination (UTME) 228(78.1%). This demographic is in line with Samson-Akpan et al. (2017) study in Calabar among undergraduate nursing students, and that of Shaban (2014) in terms of gender who stated that majority of the population were females, and majority came in through UTME. However, it contrasts with Samson-Akpan et al. (2017) in terms of age range but in agreement with Bektas et al. (2018) in Turkey whose findings reported that the average age of respondents was 19 years and majority were females.

5.1.2 Perceived Academic stress

Question 1: What is the level of perceived academic stress experienced by undergraduate students in selected departments in School of Basic Medical Science, University of Benin?

The findings for research question one (1) revealed that there is moderate level of perceived stress amongst undergraduate students in Medical Biochemistry and Nursing Science, UNIBEN. This is due to the fact that the mean scores (from the responses) of the items under the level of perceived stress of undergraduate students were above the cut off mean 2.00 thus resulting in a grand mean of 2.63. This finding is in contrast with the findings of Abasimi et

al. (2018) in Ghana and Sampson Akpan et al. (2017) in Nigeria who reported high levels of stress among undergraduate nursing students in Calabar. The finding is also in contrast with the study of Kashmoola (2016) in Dubai on level of stress among students studying in higher education institutes, who reported low levels of stress. The response from this study however is in favor of findings of Rajesh (2015) in Punjab on Stress and coping strategies among nursing students, Yikealo, et al. (2018) in East African studies and Ajibade et al. (2016) on a cross sectional study among nursing students in South West Nigeria who reported mild level (50.2%) of stress. Samson-Akpan et al. (2017) in Calabar revealed that 52.6% of respondents had high levels of stress while 47.4% of the respondents had low levels. The results also showed that 42.9% of students who entered by direct entry had high levels of stress, while 47.7% of respondents who entered through UME and all transfer students had high levels of stress as well. Ajibade et al. (2016) found that among respondents in Nigeria, majority had mild stress (50.2%) less than half (33.7%) had moderate stress, while less than one-third (16.1%) had severe stress. Edjah et al. (2020) reported that majority of the students (93.4%) were moderately stressed, 6% were highly stressed and 0.6% had low levels of stress. However, Gustems-Carnicer et al. (2019) found that 84% of respondents were in severe stress.

5.1.3 Factors of Stress

Question 2: What are the factors that predispose undergraduate students to stress in selected departments in School of Basic Medical Science, University of Benin?

The findings from this study reveals that examinations, assignments deadline, financial difficulties noise in hostel/ lodge, increased class workload, low grades, misunderstanding lectures, the environment respondents reside in, financial difficulties as well as pressure of combining paid job and study were sources of stress to undergraduate students in SBMS, UNIBEN. This finding is in agreement with the opinions of Hans Selye and Rajesh (2015) as well as Sampson Akpan et al. (2016) who stated sources of stress were due to academic,

financial, interpersonal and environmental pressures respectively. This also agrees with the study by Oku et al. (2015) on stress and coping among medical students in Nigerian schools which identified major stressors faced by students to include excessive school work, lack of time for recreation and poor learning environment. Furthermore, the findings are in contrast to the study of Lee and Jang (2015) who reported unhealthy form of relationship with family and friends as a source of stress. Edjah et al. (2020) identified academic stressors, institutional stressors and external stressors among respondents. Furthermore, in their study in New Delhi, Rehman and Baluja (2021) found that large syllabus, less study time, followed by apprehension to viva-voce, seventy-two-point seven percent (72.7%) of students marked that they have faced difficulties in adapting to the new environment and feeling home sickness, which was particularly seen in first-year students. Lack of friends was the most common non-academic cause of stress. Students had confronted stress because of competition related stress. Also, a study by Lavoie-Tremblay et al. (2020) in Montreal, Canada revealed for first-year students, their stress was related to their academic courses. High clinical performance expectations and a lack of time for their personal lives was a main source of stress for second-year students. The prospect of graduating and transitioning into the work environment caused stress for students in their final year. Similarly, Xu and Wang (2022) in a study in China, found that stressors include academic rivalry, learning efficacy pressure from school work stress, worry about the future, class room environment.

5.1.4 Stress Coping Strategy

Question 3: What are the coping strategies used by undergraduate students in selected departments in School of Basic Medical Science, University of Benin?

Findings of the study as regards research question three showed the coping strategies adopted by undergraduate students. From their responses, it could be elicited that in an attempt to cope with stress, the respondents choose to sleep, pray, eat, relax, log in on any social media

platform, read book and novels and listen to music. This finding was similar with the findings of Sampson-Akpan et al. (2017) in Calabar, who said that the respondents coped with stress by seeking spiritual support, seeking professional assistance, being amusing. Similarly, Anye, et al. (2013) reported that spirituality has been widely accepted as a dimension or component of health or wellness, thus proving to be an effective coping strategy. Dexter et al. (2018) also reported that the negative ways included eating more, sleeping less, increased use of the Internet. The findings from the study also showed that the least utilized strategy was using drugs, talking to a psychologist, yelling at people and going to a comedy show. Although this was contrast with Sampson-Akpan et al. (2017) where he stated the respondents' used drugs and smoking to cope with stress. The study is also in contrast with the findings of Khejan, et al. (2014), Bektas, et al. (2018) and Labrague (2017) who reported that the most common coping strategy was problem-solving approaches. In Spain, Onieva-Zafra et al. (2020) found that the coping strategy most frequently used by students was problem-solving, followed by social support and cognitive restructuring.

5.2 Implication of findings to Nursing

Evidence from this study could guide nurses to counsel undergraduates on appropriate coping strategies for academic stress. It will help nurses identify sources of academic stress among students. Result of this study has implication for nursing education and the general public. Attrition of student nurses due to moderate stress level can lead to shortage of manpower and inefficient delivery of health care services due. Also, academic related stress will prevent quality outcome and output of graduate Medical Biochemists to the society. There is need to examine and understand the various sources of stress among nursing student and Medical Biochemistry students and give due attention to each source. Nurses in the clinical areas and nurse tutors should ensure that medical students are provided with information that will enable them cope effectively with the stress associated with clinical posting which is a core

part of their training programme. Seeking professional support: Mentorship and mentee relationship should be reinforced in the department of nursing in order to facilitate relationship and communication. There should be students-tutors forum whereby students would be able to discuss their plight with the authorities and those concerned. Lecturers and the clinical staff should provide appropriate guidelines on how to go about their assignments.

5.3 Limitations of study

The limitations to this study included time constraint in explaining the content of the questionnaire to the respondents, slow feedback from the respondents, and difficulty in accessing the final year Medical Biochemistry students as they do had classes during the break time.

5.4 Summary

This study sought to assess stress coping strategies used by undergraduate students of University of Benin, Benin City. The study was outlined into five chapters. This study dealt with the introduction of the topic, statement of problem, objectives of the study, research questions, hypotheses and scope of study, the significance of the study and operational definition of terms. Relevant literatures were reviewed on the subject under discourse, theoretical framework and empirical review of related studies were also discussed in this chapter. Also, research methodology which adopted the descriptive cross-sectional research design and convenience sampling was used to select three hundred and twenty undergraduates in University of Benin, Benin City. A self-structured questionnaire was used as instrument of data collection. Analysis and interpretation of data were discussed, tables with percentage and means represented information, while test of hypothesis was done using chi-square test of association. Some of the identified coping strategies utilized by undergraduate students in the study include; saying mean things to people, letting off steam

by complaining to friends and family, going to see a movie, playing video games, using drugs, listening to music, reading books/novels, going shopping, watching TV, sleeping, logging on any social media platform, relaxing, working on a hobby, eating food, driving around in a car, talking to a psychologist, talking to a pastor/imam, praying, joking and keeping a sense of humor, trying to be funny and taking things lightly, and attending a comedy show.

5.5 Conclusion

This study assessed stress coping strategies used by undergraduates in selected departments in School of Basic Medical Science, University of Benin, Benin City. Saying mean things to people, letting off steam by complaining to friends and family, getting angry and yelling at people, going to see a movie, listening to music, reading books/novels, going shopping, watching TV, sleeping, logging on any social media platform, relaxing, working on a hobby, eating food, talking to a psychologist, talking to a pastor/imam, praying, joking and keeping a sense of humor, trying to be funny and taking things lightly, and attending a comedy show were some of the identified coping strategies utilized in this study. The study however also identified that there is no significant difference in the mean coping strategy employed by the respondents by age group and there is no significant difference in the mean coping strategy employed by the respondents by sex.

5.6 Recommendations

Based on the findings of this study, the following recommendations are made in order to reduce the level of stress among undergraduate students in SBMS and encourage appropriate usage of coping strategies among them.

The University community should make concerted efforts to ensure low level of academic stress among students. Students should be taught to always practice positive stress coping strategies such as praying, relaxing or taking a break and speaking to a psychologist. Nurses

and teachers should health educates the students on the essence of coping strategies, discouraging them on use of detrimental ones (such as eating, use of drugs and yelling at people), continual assessment of how well individuals cope with stress. Students going through one stressful situation or the other are encouraged to speak out and seek professional help such as employing the services of a skilled counsellor. A Psychologist and a Counsellor are available at the Students Guidance and Counseling Center (Department) in UNIBEN. The nurse and lecturers should create awareness of the variety alternatives individuals could use to cope with stress and spread across the students via social media like whatsapp, face book, posters, public announcements, and advertisement, making them know that too much of stressful situation and inability to manage the stressful situations often reduces their lifespan. The nurse and lecturers should promote problem-focused learning as this has been proven to be effective. There is the need to incorporate the teaching of stress management and self-care skills to medical students. This will go a long way in equipping them with the skills necessary to cope with different forms of stress they encounter during the course of their studies. It is recommended that there should be the use of depression, anxiety, and stress-measuring inventories at the time of admission into the university, and then those inventories should be used longitudinally for measuring and comparing their depression, anxiety, and stress levels. If their depression, anxiety, and stress levels are found to be high, timely intervention should be provided.

5.7 Suggestion for further studies

Due to some of the discoveries that was noticed in the course of this study, the researcher will like to raise the following points for further studies.

1. It would be pertinent to have more research studies that involve the sampling of other non-medical and medical students in tertiary institution.

2. It is also suggested that study should cover other medical students in private and public tertiary institutions so that generalization on the issue of perceived stress and coping mechanisms among undergraduate students in Edo state can assertively be made.
3. Further studies should analyze level of stress as relating to level of study, to evaluate the certain class where students perceive stress the more so that measures can be put in place to help overcome the stress.

REFERENCES

- Ajibade, B. L., Olabisi, O. O., Fabiyi, B., Ajao, O. O., & Ayeni, A. R. (2016). Stress, types of stressors and coping strategies amongst selected nursing school students in south-west, Nigeria. *European Journal of Biology and Medical Science Research*, 74(3), 1-15. <https://www.researchgate.net/publication/346901571>
- Al-Rouq, F., Al-Otaibi, A., AlSaikhan, A., Al-Essa, M., & Al-Mazidi, S. (2022). Assessing physiological and psychological factors contributing to stress among medical students: implications for health. *International Journal of Environmental Research and Public Health*, 19(24). <https://doi:10.3390/ijerph192416822>
- Amanvermez Y., Rahmadiana M., Karyotaki E., de Wit L., Ebert D.D., Kessler R.C., & Cuijpers P. (2020). Stress management interventions for college students: A systematic review and meta-analysis. *Clinical Psychology: Science and Practice*. <https://doi:10.1111/cpsp.12342>.
- Amanvermez, Y., Zhao, R., Cuijpers, P., de Wit, L., M., Ebert, D. D., Ronald, C. Kessler, R. C., Bruffaerts, R. & Karyotakia, E. (2022). Effects of self-guided stress management interventions in college students: A systematic review and meta-analysis. *Internet Intervention*. <https://doi:10.1016/j.invent.2022.100503>
- American Psychological Association. (2020). *Stress in America™2020: a national mental health crisis*. Washington, DC: American Psychological Association. <https://www.americanpsychologicalassociation.com/stress>
- Anye, E.T., Gallien, T.L., Bian, H., & Moulton, M. (2013). The relationship between spiritual well-being and health-related quality of life in college students. *Journal of American College Health*, 61(7), 414-421.
- Babicka-Wirkus A., Wirkus L., Stasiak K., & Kozłowski P. (2021). University students' strategies of coping with stress during the coronavirus pandemic: data from Poland. *PLoS ONE*, 16(7), Article 0255041. <https://doi:10.1371/journal.pone.0255041>
- Barbayannis G., Bandari M., Zheng X., Baquerizo H., Pecor K.W., & Ming X. (2022) Academic stress and mental well-being in college students: correlations, affected groups, and COVID-19. *Frontier Psychology*, 13. <https://doi:10.3389/fpsyg.2022.886344>
- Batra K., Sharma M., Batra R., Singh T.P., & Schvaneveldt N. (2021). Assessing the psychological impact of COVID-19 among college students: An evidence of 15 countries. *Healthcare*, 9(2), 22. <https://doi:103390/healthcare9020222>
- Bektas, H., Terkes, N., & Özer, Z. (2018). Stress and ways of coping among first year nursing students: a Turkish perspective. *Journal of Human Sciences*, 15(1), 319-330.
- Bourgeois, T.J. (2018). Effect of Eustress, Flow, and Test Anxiety on Physical Therapy Psychomotor Practical Examinations. Walden University ScholarWorks: 17-18. <https://scholarworks.waldenu.edu/dissertations>

- Bruffaerts R., Mortier P., Auerbach R.P., Alonso J., Hermsillo De la Torre A.E., Cuijpers P., Demyttenaere K., Ebert D.D., Green J.G., Hasking P., Stein D.J., Ennis E., Nock M.K., Pinder-Amaker S., Sampson N.A., Vilagut G., Zaslavsky A.M., & Kessler R.C.(2019). WMH-ICS collaborators lifetime and 12-month treatment for mental disorders and suicidal thoughts and behaviors among first year college students. *International Journal and Methods of Psychiatry Research*, 28(2). <https://doi:10.1002/mpr.1764>.
- Chiang, J. J., Ko, A., Bower, J. E., Taylor, S. E., Irwin, M. R., & Fuligni, A. J. (2019). Stress, psychological resources, and HPA and inflammatory reactivity during late adolescence. *Developmental Psychopathology*, 31, 699–712. <https://doi:10.1017/S0954579418000287>
- Chitra, G. (2021). Stress vs. depression vs. anxiety: similarities and differences. *Axiom Medical*. Available at <https://www.axiomllc.com/blog/stress-vs-depression-vs-anxiety-similarities-and-differences/>
- Chinweuba, A., Iheanacho, P., & Agbapuonwu, N. (2014). *Research and statistics in nursing and related professions: beginners guide* (2nd Edition). Enugu: EL Denmark Publishers.
- Clabaugh, A., Duque, J.F., & Fields, L.J. (2021). Academic Stress and Emotional Well-Being in United States College Students Following Onset of the COVID-19 Pandemic. *Frontier Psychology*, 12. <https://doi:10.3389/fpsyg.2021.628787>
- Colino, S. (2022). How stress can damage your brain and body. *The Washington Post*. Available at <https://doi:washingtonpost.com/wellness/2022/04/26/inner-workings-stress-how-it-affects-your-brain-body/>
- Cooper, A. L., Brown, J.A., Rees C.S., & Leslie, G.D. (2020). Nurse resilience: a concept analysis. *International Journal of Mental Health Nursing*, 29(4), 553-575. <https://doi:10.1111/inm.12721>
- Creswell, J. W., & Cresswell, J. D. (2018). *Research design qualitative, quantitative and mixed methods approach* (H. Salmon, C. Neve, M. O’Heffernan, D. C. Felts, & A. Marks (eds.); 5th ed.). Sage Publication Inc.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16. 297-334. <https://doi.org/10.1007/BF0231055>
- Cuijpers P., Miguel C., Ciharova M., Aalten P., Batelaan N., Salemink E., Spinhoven P., Struijs S., de Wit L., Gentili C., Ebert D., Harrer M., Bruffaerts, R., Kessler, R.C., & Karyotaki, E. (2021). Prevention and treatment of mental health and psychosocial problems in college students: an umbrella review of meta-analyses. *Clinical Psychology: Science Practical*, 28(3): 229–244. <https://doi:10.1037/cps0000030>.
- Defeyter, M. A., Stretesky, P. B., Long, M. A., Furey, S., Reynolds, C., Porteous, D., Dodd, A., Mann, E., Kemp, A., Fox, J., McAnallen, A., & Gonçalves, L. (2021). Mental well-being in UK higher education during covid-19: do students trust universities and the government. *Frontiers in public health*, 9, <https://doi.org/10.3389/fpubh.2021.646916>

- Dexter, L.R., Huff, K., Rudecki, M., & Abraham, S. (2018). College students' stress coping behaviours and perception of stress effects holistically: *International Journal of studies in Nursing*, 15(1), 2424-9653
- Dong, Y., Mo, X., Hu, Y., Qi, X., Jiang, F., Jiang, Z., & Tong, S. (2020). Epidemiology of COVID-19 among children in China. *Pediatrics*, 145(6), e20200702. <https://doi.org/10.1542/peds.2020-0702>
- Dreher, A., Yusuf, R., Ashraf, H., Syed A. K. Ahmed, S., Strümpell, C., & Loerbroks, A. (2022). Social stressors and social resources at work and their association with self-reported health complaints among ready-made garment workers in Bangladesh: a cross-sectional study. *BMC Public Health*, 22: 1793. <https://doi:10.1186/s12889-022-14173-x>
- Edjah, K., Ankomah, F., Domey, E., & Laryea, J. (2020). Stress and its impact on academic and social life of undergraduate university students in Ghana: A Structural Equation Modeling Approach. *Open Education Studies*, 2(1), 37-44. <https://doi.org/10.1515/edu-2020-0100>
- Elmer, T., & Stadtfeld, C. (2020). Depressive symptoms are associated with social isolation in face-to-face interaction networks. *Scientific Reports*, 10. <https://doi.org/10.1038/s41598-020-58297-9>.
- Eredoro, C. O., & Egbochuku, O. O. (2019). Overview of Stress and Stress Management. *ARC Journal of Nursing and Healthcare*, 5(2): 12-18. <https://doi:dx.doi.org/10.20431/2455-4324.05020>
- Esterwood, E., & Sy, S.A. (2020). Past Epidemics, Natural Disasters, COVID19, and Mental Health: Learning from History as we Deal with the Present and Prepare for the Future. *The Psychiatric Quarterly*, 91(4): 1121–1133. <https://doi:10.1007/s11126-020-09808-4>
- Filiatreau, L. M., Ebasone, P. V., Dzudie, A., Ajeh, R., Pence, B. W., Wainberg, M., Nash, D., Yotebieng, M., Anastos, K., Pefura-Yone, E., Nsame, D., & Parcesepe, A. M. (2022). Prevalence of stressful life events and associations with symptoms of depression, anxiety, and post-traumatic stress disorder among people entering care for HIV in Cameroon. *Journal of Affective Disorders*, 308. 421-431. <https://doi.org/10.1016/j.jad.2022.04.061>
- Fink, G. (2009). Stress: definition and history. *Encyclopedia of Neuroscience?* 549–555. https://doi:researchgate.net/publication/285784528_
- Flick, U. (2020). *Introducing research methodology*. Sage: California
- Folkman, S., & Lazarus, R.S. (1988). "Coping as a mediator of emotion". *Journal of Personality and Social Psychology*, 54(3), 466-475.
- Freire, C., Ferradás M. M., Regueiro, B., Rodríguez, S., Valle, A., & Núñez, J. C. (2020). Coping strategies and self- efficacy in university students: a person-centered approach. *Frontier in Psychology*, 11, 841. <https://doi:10.3389/fpsyg.2020.00841>
- Ganesan, Y., Tamar, P., Fauzan, N., & Oon, Y.B. (2018). A study on stress level and coping strategies among undergraduate students. *Journal of Cognitive Sciences and Human Development*, 3(2), 37-47. <https://publisher.unimas.my/ojs/index.php/JCSHD/article/view/787>

- Green, Z. A., Faizi, F., Jalal, R., & Zadran, Z. (2021). Emotional support received moderates academic stress and mental well-being in a sample of Afghan university students amid COVID-19. *International Journal of Social Psychiatry*, <https://doi:10.1177/00207640211057729>.
- Gulzar, I., Ashraf, Z., & Mehmood, A. (2022). Workplace Distress and Eustress among Teachers during the Pandemic. *Open Journal of Social Sciences*, 10, 156-176. <https://doi.org/10.4236/jss.2022.1011012>
- Guo, K., Zhang, X., Bai, S., Minhat, H.S., Nazan, A., & Feng J. (2021). Assessing social support impact on depression, anxiety, and stress among undergraduate students in Shaanxi province during the COVID-19 pandemic of China. *PLoS ONE*, 16(7): e0253891. [https://Doi: 10.1371/journal.pone.0253891](https://doi:10.1371/journal.pone.0253891)
- Gustems-Carnicer, J., Calderón, C., & Calderón-Garrido, D. (2019). Stress, coping strategies and academic achievement in teacher education students. *European Journal of Teaching Education*, 42(3) 375–390. <https://doi:10.1080/02619768.2019.1576629>
- Hailu, G.N. (2020). Practice of stress management behaviors and associated factors among undergraduate students of Mekelle University, Ethiopia: a cross-sectional study. *BMC Psychiatry*, 20, 162. <https://doi.org/10.1186/s12888-020-02574-4>
- Harrer M., Adam S.H., Baumeister H., Cuijpers P., Karyotaki E., Auerbach R.P., & Ebert D.D. (2019). Internet interventions for mental health in university students: a systematic review and meta-analysis. *International Journal Methods Psychiatry Restitution*, 28(2):1–18. <https://doi:10.1002/mpr.1759>.
- Hatunoglu, B. Y., (2020). Stress coping strategies of university students. *Cypriot Journal of Educational Science*, 15(5), 1320–1336 <https://doi.org/10.18844/cjes.v15i5.5171>
- Hirvonen R., Yli-Kivistö L., Putwain D.W., Ahonen T., & Kiuru N. (2019) School-related stress among sixth-grade students—associations with academic buoyancy and temperament. *Learning Individual Differences*, 70. 100–108. [https://doi: 10.1016/j.lindif.2019.01.012](https://doi:10.1016/j.lindif.2019.01.012).
- Hopper, S. I., Murray, S. L., Ferrara, L. R., & Singleton, J. K. (2019). Effectiveness of diaphragmatic breathing for reducing physiological and psychological stress in adults: a quantitative systematic review. *JBIS database of systematic reviews and implementation reports*, 17(9), 1855–1876. <https://doi.org/10.11124/JBISRIR-2017-003848>
- Hussenoeder, F. S., Conrad, I., Pabst, A., Lupp, M., Stein, J., Engel, C., Zachariae, S., Zeynalova, S., Yahiaoui-Doktor, M., Glaesmer, H., Hinz, A., Witte, V., Wichmann, G., Kirsten, T., Löffler, M., Villringer, A., & Riedel-Heller, S. G. (2022). Different areas of chronic stress and their associations with depression. *International Journal of Environmental Research and Public Health*, 19(14): 8773. <https://doi:10.3390/ijerph19148773>
- Ingram, J., Maciejewski, G. & Hand, C.J. (2020). Changes in diet, sleep and physical activity are associated with differences in negative mood during COVID-19

- lockdown. *Frontiers in Psychology*, 11, 23-28. <https://doi:10.3389/fpsyg.2020.588604>
- Jilcha, S.K. (2020). Research design and methodology. Cyberspace. <https://doi:10.5772/intechopen.85731>
- Karyotaki, E., Cuijpers, P., Albor, Y., Alonso, J., Auerbach, R. P., & Bantjes, J., (2020). Sources of stress and their associations with mental disorders among college students: results of the World Health Organization world mental health surveys international College student initiative. *Frontiers in Psychology*, 11, 1759. <https://doi:10.3389/fpsyg.2020.01759>
- Kashmoola, B. (2016). Level of Stress among Students Studying in Higher Education Institutes (HEIs) in Dubai. *Arabian Journal of Business Management Review*, 10 (4), 1-4.
- Kaur H. (2019). Strategies for coping with academic stress, stress management. *International Journal of Research and Rebiem*, 6(10). 185-188
- Khan, F. N., Begum, M., & Imad, M. (2019). Relationship between students' home environment and their academic achievement at secondary school level. *Pakistan Journal of Distance & Online Learning*, 5(2). 223-224.
- Kirumbi, A. B. (2018). Modelling the point spread function using principal component analysis. Department of physics and astronomy and college of arts and science. The University of Ohio p10-12
- Labrague, L. J., McEnroe-Petitte, D. M., Gloe, D., Thomas, L., Papathanasiou, I. V., & Tsaras, K. (2017). A literature review on stress and coping strategies in nursing students, *Journal of Mental Health*, 26 (5), 471-480
- Lally, M., & Valentine-French, S. (2019). *Lifespan Development: A psychological perspective*. (2nd Edn. [E-book] San Francisco: Creative Commons. p.246-306). <http://dept.clcillinois.edu/psy/LifespanDevelopment.pdf>
- Landy, J.F., Shigeto, A., Laxman, D.J., & Lawrence, M. S. (2022). Typologies of stress appraisal and problem-focused coping: associations with compliance with public health recommendations during the COVID-19 pandemic. *BMC Public Health*, 22, 784 <https://doi.org/10.1186/s12889-022-13161-5>
- Lazarus, R.S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. Springer; New York, NY, USA.
- Lee, J., & Jang, S. (2015). An exploration of stress and satisfaction in college students. *Services Marketing Quarterly*, 36 (10), 245-260.
- Leviness P., Gorman K., Braun L., Services A., Koenig L., Health C., & Services A. (2019). The association for university and college counselling center directors annual survey: Available at <https://www.aucccd.org/assets/documents/Survey/2019%20AUCCCD%20Survey-2020-05-31-PUBLIC.pdf>
- Liu, C. H., Stevens, C., Wong, S., Yasui, M., & Chen, J. A. (2019). The prevalence and predictors of mental health diagnoses and suicide among U.S. college students: Implications for addressing disparities in service use. *Depress Anxiety*, 36(1) 8–17. <https://doi:10.1002/da.22830>

- Lutin E, Schiweck C, Cornelis J, De Raedt W, Reif A, Vrieze E, Claes, S., & Van Hoof, C. (2022) The cumulative effect of chronic stress and depressive symptoms affects heart rate in a working population. *Frontier Psychiatry*, 13 <https://doi:10.3389/fpsy.2022.1022298>
- Majid, U. (2018). Research fundamentals: study design, population, and sample size. *Urnst Journal*, 2(1). <https://doi:10.26685/urnst>
- Manansingh, S., Tatum S.L., & Morote E.S. (2019). Effects of relaxation techniques on nursing students' academic stress and test anxiety. *Journal of Nursing Education*, 58(9): 534-537. <https://doi:10.3928/01484834-20190819-07>.
- Matud, M. P., Díaz, A., Bethencourt, J. M., & Ibáñez, I. (2020). Stress and psychological distress in emerging adulthood: a gender analysis. *Journal of Clinical Medicine*, 9(9), 2859. <https://doi:10.3390/jcm9092859>
- McEwen, B.S. (2017). Neurobiological and Systemic Effects of chronic stress. *Chronic Stress*, 1. <https://doi:10.1177/2470547017692328>.
- McEwen, B.S., & Seeman T. (2019). Protective and damaging effects of mediators of stress. Elaborating and testing the concepts of allostasis and allostatic load. *Ann New York Academy of Science*, 896:30–47. <https://doi:10.1111/j.1749-6632.1999.tb08103.x>
- Mheidly, N., Fares, M.Y., & Fares, J. (2020) Coping with stress and burnout associated with telecommunication and online learning. *Frontier in Public Health*. <https://doi:10.3389/fpubh.2020.574969>
- Munduate, L., Medina, F. J., & Euwema, M. C. (2022). Mediation: understanding a constructive conflict management tool in the workplace. *Journal of Work and Organizational Psychology*, 38(3), 165-173. <https://doi.org/10.5093/jwop2022a20>
- Musselin, C. (2018). New forms of competition in higher education. *Socio-Economic Review*, 16(3), 657–683. <https://doi.org/10.1093/ser/mwy033>
- Obregon, M., Luo, J., Shelton, J., Blevins, T. & Macdowell, M. (2020). Assessment of burnout in medical students using the Maslach Burnout Inventory-Student Survey: a cross-sectional data analysis. *BMC Medical Education*, 20(376). <https://doi.org/10.1186/s12909-020-02274-3>
- Octasya, T. & Munawaroh, E. (2021). Level of academic stress for students of guidance and counseling at Semarang State University during the pandemic. *Journal of Professionals in Guidance and Counseling*, 2(1). <https://doi.org/10.21831/progcouns.v2i1.40275>
- O'Rourke, M., Hammond, S., O'Flynn, S., & Boylan, G. (2010). The medical student stress profile: a tool for stress audit in medical training. *Medical Education*, 44(10) 1027Educa
- Pandey, P. & Pandey, M. M. (2015). Research methodology: tools and techniques. (vol. 1). Romania: Bridge Center.
- Pascoe, M. C., Hetrick, S. E., & Parker, A.G. (2020). The impact of stress on students in secondary school and higher education. *International Journal of Adolescent and Youth*, 25(1), 104–112. <https://doi:10.1080/02673843.2019.1596823>

- Pastorino, E. & Doyle-Portillo, S. (2021). What is Psychology. Foundations, Applications, and Integration. 5th Ed. Belmont, CA, USA: Cengage Learning.
- Phillips, S. C., Halder, D. P., & Hasib, W. (2020). Academic stress among tertiary level students: a categorical analysis of academic stress scale in the context of Bangladesh. *Asian Journal of Advanced Research and Reports*, 8(4), 1–16. <https://doi.org/10.9734/ajarr/2020/v8i430203>
- Pluut, H., Curşeu, P. L., & Fodor, O. C. (2022). Development and validation of a short measure of emotional, physical, and behavioral markers of eustress and distress (MEDS). *Healthcare*, 10(2): 339. <https://doi:10.3390/healthcare10020339>
- Portoghese, I, Leiter, M. P., Maslach, C, Galletta, M, Porru, F, D'Aloja, E, Finco, G. & Campagna, M. (2018). Measuring burnout among university students: factorial validity, invariance, and latent profiles of the Italian version of the Maslach Burnout Inventory Student Survey (MBI-SS). *Frontier Psychology*, 9: 2105. <https://doi:10.3389/fpsyg.2018.02105>
- Quick J.C., Quick J.D., Nelson D.L., & Hurrell J.J. (1997). *Preventive stress management in organizations*. American Psychological Association; Washington, DC, USA: 180-185.
- Qutub, MF., Azahrani, A.A., Bafail, M.A, Alomari, A.S., Abuznadah, W.T., Alsaywid, B.S., & Munshi, M.F. (2018). Absenteesim among Saudi medical students. *The Egyptian Journal of Hospital Medicine*, 70(8), 1248-1253.
- Rai, R.C. (2021). Importance of imagery visualisation. *International Journal of Physical Education, Sports and Health*, 8(5): 378-380.
- Rajesh-Kumar.R. (2015). Stress and coping strategies among nursing students. *Nursing Midwifery Research Journal*, 7 (4), 141-151.
- Reddy, K. J., Menon, K. R., & Thattil, A. (2018). Academic stress and its sources among university students. *Biomedical Pharmacology Journal*, 11(1), 531-537. <https://doi:10.13005/bpj/1404>
- Rizvi Y.S., & Nabi A. (2021). Transformation of learning from real to virtual: an exploratory-descriptive analysis of issues and challenges. *Journal Research Innovation of Teaching and Learning*, 14(1), 5–17.
- Rozali, M. Z., Putch, S., Yunus, F. A. N., Hamdan, N. H., & Latif, H. F. M. (2022). Reliability and validity of instrument on academic enhancement support for student-athlete using rasch measurement model. *Asian Journal of University Education*, 18(1). <https://doi.org/10.24191/ajue.v18i1.17199>
- Rudolphi J.M., Berg R.L., & Parsaik A. (2020). Depression, anxiety and stress among young farmers and ranchers a pilot study. *Community Mental Health Journal*, 56. 126–134. <https://doi:10.1007/s10597-019-00480-y>.
- Samson-Akpan, P. John, M. E., Edet, O. B., & Ella, R. E. (2017). Stress and coping strategies among undergraduate nursing students in Calabar, Nigeria. *Journal of Nursing and Health Science*, 6(1). 61-70. <https://10.9790/1959-0603086170>.
- Selye, H.(1936). A Syndrome produced by Diverse Nocuous Agents. *Nature*, 138. 32. <https://doi.org/10.1038/138032a0>

- Selye, H. (1983). *The stress concept: Past, present, and future*. In: Cooper C.L., editor. *Stress Research*. John and Wiley and Sons; New York, NY, USA: 1–20.
- Seo J.-S., Wei J., Qin L., Kim Y., Yan Z., & Greengard P. (2017). Cellular and molecular basis for stress-induced depression. *Molecular Psychiatry*, 22:1440–1447. <https://doi.org/10.1038/mp.2016.118>.
- Siltanen, S., Rantanen, T., Portegijs, E., Tourunen, A., Poranen-Clark, T., & Eronen, J. (2019). Association of tenacious goal pursuit and flexible goal adjustment with out-of-home mobility among community-dwelling older people. *Aging Clinical Express Research*, 31(9), 1249–1256. <https://doi.org/10.1007/s40520-018-1074-y>
- Stephen, F. A., Ermalyn, L. P., Yasmin, M. B., Louise, L. J. D., & Juvenmile, T. B.. (2022). A voyage into the visualization of athletic performances: a review. *American Journal of Multidisciplinary Research and Innovation*, 1(3), 105–109. <https://doi.org/10.54536/ajmri.v1i3.479>
- Taherdoost, H. (2021). *Handbook on Research Skills: The essential step-by-step; guide on how to do a research project* (Kindle ed.): Amazon: 2-5
- The learning center, University of North Carolina. (2022). College Stress. <https://learningcenter.unc.edu/tips-and-tools/managing-college-stress/>
- Toqan, D., Ayed, A., Joudallah, H., Amoudi, M., Malak, Z. M., P, Thultheen, I., & Batran, A. (2022). Effect of progressive muscle relaxation exercise on anxiety reduction among nursing students during their initial clinical training: a quasi-experimental study. *Sage Journal*, 59, 1–7. <https://doi.org/10.1177/00469580221097425>
- Tran, A. W. Y., & Lumley, M. N. (2019). Internalized stigma and student well-being: the role of adaptive and maladaptive coping. *Social Work Mental Health*, 17(4), 408–425. <https://doi.org/10.1080/15332985.2018.1563023>
- Wang, C. & Zhao, H. (2020) The Impact of COVID-19 on Anxiety in chinese university Students. *Frontier Psychology*, 11: 1168. <https://doi.org/10.3389/fpsyg.2020.01168>
- Wright, K. P., Jr, Linton, S. K., Withrow, D., Casiraghi, L., Lanza, S. M., Iglesia, H., Vetter, C., & Depner, C. M. (2020). Sleep in university students prior to and during COVID-19 Stay-at-Home orders. *Current biology CB*, 30(14), 797–798. <https://doi.org/10.1016/j.cub.2020.06.022>
- Xiao, J., Wang, R., Hu, Y., He, T., Ruan, Z., Chen, Q., & Ziwen Peng, Z (2022). Impacts of the psychological stress response on nonsuicidal self-injury behavior in students during the COVID-19 epidemic in China: the mediating role of sleep disorders. *BMC Psychology*, 10, 87. <https://doi.org/10.1186/s40359-022-00789-6H>
- Xu, C., & Wang. Q. (2022). The relationships of creative coping and college students’ achievement emotions and academic stress: the mediating role of psychological capital. *Journal of Intelligence*, 10: 126. <https://doi.org/10.3390/jintelligence10040126>
- Yagmur Amanvermez, Y., Ruiying Zhao, R., Pim Cuijpers, P., de Wit, L. M., Ebert, D. D., Kessler, R. C., Bruffaerts, R., & Karyotaki E. (2022). Effects of self-

- guided stress management interventions in college students: a systematic review and meta-analysis. *Internet Interventions*.
[https://doi:10.1016/j.invent.2022.1005036](https://doi.org/10.1016/j.invent.2022.1005036)
- Yaribeygi, H., Panahi, Y., Sahraei, H., Johnston, T.P., & Amirhossein Sahebkar, A. (2017). The impact of stress on body function: a review. *Excli Journal*, 16: 1057–1072. [https://doi:10.17179/excli2017-480](https://doi.org/10.17179/excli2017-480)
- Yikealo, D., Tareke, W. & Karvin (2018). Stress Coping Strategies among College Students: A Case in the College of Education, *Eritrea Institute of Technology*. 3(3)
- Zeng, Y., Wang, G., Xie, C., Hi, X. & Reinhardt, J. D. (2019). Prevalence and correlates of depression, anxiety and symptoms of stress in vocational college nursing students from Sichuan, China: a cross-sectional study. *Psychology, Health & Medicine*, 24(7), 798-811. [https://doi:10.1080/13548506.2019.1574358](https://doi.org/10.1080/13548506.2019.1574358)
- Zhang, X., Gao, F., Kang, Z., Zhou, H., Zhang, J., Li, J., Yan, J., Wang, J., Liu, H., Wu, Q. & Liu, B. (2022). Perceived academic stress and depression: The mediation role of mobile phone addiction and sleep quality. *Frontier in Public Health*, 10. [https://doi:10.3389/fpubh.2022.760387](https://doi.org/10.3389/fpubh.2022.760387)
- Zimmer-Gembeck, M. J., & Skinner, E. A. (2016). *The development of coping: Implications for psychopathology and resilience*, in *Developmental Psychology: Risk, Resilience, and Intervention*, ed. D. Cicchetti (New York, NY: John Wiley & Sons), 485-545.

APPENDIX I
DEPARTMENT OF NURSING SCIENCE
SCHOOL OF BASIC MEDICAL SCIENCES
UNIVERSITY OF BENIN
BENIN CITY, EDO STATE.

QUESTIONNAIRE

**PERCEIVED UTILIZATION OF STRESS COPING STRATEGIES BY
UNDERGRADUATE STUDENTS IN SELECTED DEPARTMENTS IN SCHOOL OF
BASIC MEDICAL SCIENCE IN UNIVERSITY OF BENIN**

INSTRUCTION: Please tick [✓] the options you consider most appropriate in the space provided.

Section A: Demographic characteristics of respondents

1. Age (Years): (a) 16 – 19 [] (b) 20– 24 [] (c) 25– 29 [] (d) 30 and above []
2. Sex: (a) Male [] (b) Female []
3. Marital status: (a) single [] (b) married []
4. Department: (a) Medical Biochemistry [] (b) Nursing Science []
5. Level: (a) 100 [] (b) 200 [] (c) 300 [] (d) 400 [] (e) 500 []
6. Ethnicity: (a) Hausa [] (b) Igbo [] (c) Yoruba [] (d) Edo [] (e) Others []
7. Religion: (a) Christianity [] (b) Islam [] (c) African Traditional Religion [] (d) Pagan [] (e) others
8. What type of family do you belong to: (a) Monogamy [] (b) Polygamous [] (c) Single parent home []
9. Residence: (a) On campus [] (b) Off Campus [] (c) Home []
10. Mode of entry: (a) UTME [] (b) direct entry [] (c) transfer/relocation []

SECTION B: Perceived Academic stress

Please rate your perception about the following statements in contributing to academic stress (Please tick (✓) as appropriate)

Strongly disagree, disagree, agree, strongly agree

	Items	Strongl	Disagree	Agree	Strong
--	-------	---------	----------	-------	--------

		y Disagre e			ly agree
11.	Competition with my peers for grades is quite intense				
12.	My lecturers are concerned about my academic performance				
13.	Teachers have unrealistic expectations of me				
14.	The unrealistic expectations of my parents stress me out				
15.	The time allocated to classes and academic work is enough				
16.	The size of the curriculum (workload) is excessive				
17.	I feel unable to cope with all things that should be done				
18.	The examination questions are usually difficult				
19.	Examination time is short to complete the answers				
20.	Examination periods are very stressful to me				
21.	I'm confident that I will be a successful student				
22.	I am able to deal successfully with day-to-day problems and annoyances				
23.	I fear failing courses this year				
24.	I think that my worry about examinations is weakness of character				
25.	Even if I pass my exams, am worried about getting a job				

SECTION C: This is to access the possible sources of stress, you encounter. Kindly tick what causes stress to you. Please tick (√) Yes or No

	Item	Yes	No
26.	Examinations		
27.	Assignments deadline		
28.	Returning to classes after a long strike/ break		
29.	Pressure of combining paid job and study		
30.	Poor time management (on the part of the student)		
31.	Pressure from family and friends		
32.	Leaving assignments to the last minute		
33.	Not taking enough break for self-care		
34.	Overcrowding in hostel/ lodge		
35.	Noise in hostel/ lodge		
36.	Poor sleeping habits (sleeping less than 6 hours per day)		
37.	Difficulties with interpersonal relationships (for example, with colleagues or lecturers)		
38.	Difficulty in adapting to a new environment / hostel		
39.	Financial difficulties		
40.	Lack of confidence of during classes		

Section D: Stress Coping Strategy

What measures have you put in place to overcome the stress you encounter.

Please, tick (✓) never, rarely, sometimes, often

	Stress coping strategy	never	rarely	sometimes	Often
	Ventilating feelings				
41.	Saying mean things to people				
42.	Let off steam by complaining to friends and family				
43.	Get angry and yell at people				
	Seeking diversional therapies				
44.	Go to see a movie				
45.	Play video games				
46.	Use drugs				
47.	Listen to music				
48.	Read books, novels				
49.	Go shopping				
50.	Watch TV				
51.	Sleep				
52.	Log in on any social media platform				
53.	Relaxing				
54.	Work on a hobby				
55.	Eat food				
56.	Drive around in a car				
	Seek help				
57.	Talk to a psychologist				
58.	Talk to a pastor/ imam				
59.	Pray				
	Being humorous				
60.	Joke and keep a sense of humor				
61.	Try to be funny and take things lightly				
62.	Attending a comedy show				



RESEARCH ETHICS COMMITTEE
COLLEGE OF MEDICAL SCIENCES
UNIVERSITY OF BENIN, BENIN CITY, NIGERIA.



Chairman: Prof. F. A Imarhiagbe
MBChb Cert Neuroscience, FMCP
MD, Cert Clin Res and ethics.
0803449092

Email: researchethics.cms@gmail.com

P.M.B 1154, BENIN CITY

Our Ref: CMS/REC/01/VOL.2/398

Date: 21st August, 2023.

**Re: PERCEIVED UTILIZATION OF STRESS COPING STRATEGIES BY
UNDERGRADUATE STUDENTS OF UNIVERSITY OF BENIN**

Name of Principal Investigator: JAMES OSAMUDIAMEN RHODA
Department Of Nursing Science
School Of Basic Medical Sciences
College Of Medical Sciences.
University Of Benin
Benin City

REC Approval No: CMS/REC/2023/398

This is to inform you that the research described in the submitted proposal, the Informed Consent Forms and other participant information materials have been reviewed and approved by the College Research Ethics Committee, University of Benin.

This approval dates from **21st August, 2023 to 20th August, 2024**. In multi-year research, Endeavour to submit your annual report to the REC early in order to obtain renewal of your approval and avoid disruption of your research.

The National Code of Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the code including ensuring that all adverse events are reported promptly to the REC. No, changes are permitted in the research without prior approval by REC except in circumstances outlined in the code. REC reserves the right to conduct compliance visit to your research site without prior notice.

Thank you.

PROF. F.A IMARHIAGBE
Chairman, REC

Promoting best ethical & scientific standard for research in Nigeria

APPENDIX III

INFORMATION SHEET

TITLE OF STUDY: Perceived utilization of stress coping strategies by undergraduate students in selected departments in School of Basic Medical Science in University of Benin.

DEPARTMENT: Department of Nursing Science, School of Basic Medical Sciences, University of Benin.

PRINCIPAL INVESTIGATOR: James Osamudiamen Rhoda

SUPERVISOR: Sr. Joan N. Chukwurah, PhD.

SPONSORSHIP: This research study was self-sponsored.

PURPOSE OF THE RESEARCH: This study aimed to assess the perceived utilization of stress coping strategies used by undergraduate students in Departments of English and Literature, Faculty of Arts and Nursing Science, School of Basic Medical Science, University of Benin.

PROCEDURES INVOLVED IN THE STUDY: In this study, students was asked questions about their perception about the utilization of stress coping skills, factors that predisposes them to stress and the types of coping strategies commonly used by students.

CONFIDENTIALITY: All information obtained in the course of the survey was treated with utmost confidentiality. The name of the participant was not written on the questionnaire. All information obtained from the questionnaire was coded in the personal computer of the principal investigator and pass-worded.

COMPENSATION: There shall be no financial compensation for participation in the study.

VOLUNTARY PARTICIPATION: Your participation in this study is entirely voluntary and you may wish to withdraw from it whenever you choose. If you desire to withdraw out of this study at any time, no punitive measures will be meted out against you on the account of your withdrawal. Your refusal to participate or withdraw from the study will not involve any negative consequences or loss of benefits to which you are otherwise entitled to.

RISK: It is not that any harm will come to you because of your participation in this study. The study does not entail any activity that would result in harm to you.

BENEFITS: Results obtained from this study will help us assess the perception of stress of undergraduate students in departments of medical biochemistry and nursing science, factors that predisposes undergraduate students to stress, and also create awareness among students and suggest measures to curb stress.

FINANCIAL SPONSORSHIP: This study was sponsored by the principal investigator, James Osamudiamen Rhoda.

The under-listed may be contacted in case you need any clarification to make.

James Osamudiamen Rhoda

Department of Nursing Science,

School of Basic Medical Science,

P.M.B. 1111,

Benin City, Edo State, Nigeria.

Email: osamudiamen.james@bmedsci.uniben.edu

Sr. Joan N. Chukwurah PhD.

Supervisor

Email: nkechi.chukwurah@uniben.edu

Department of Nursing Science,

School of Basic Medical Science,

College of Medicine,

University of Benin,

Benin City.

APPENDIX IV

INFORMED CONSENT FORM

I have read the above information on the topic "Perceived utilization of stress coping strategies by undergraduate students in selected departments in School of Basic Medical Science in University of Benin". I had the opportunity to ask questions about it and I have been answered to my satisfaction.

(A) I consent voluntarily to take part as a participant in this study.

(B) I do not consent to participate in this study.

Signature of Participant:.....

Date:.....