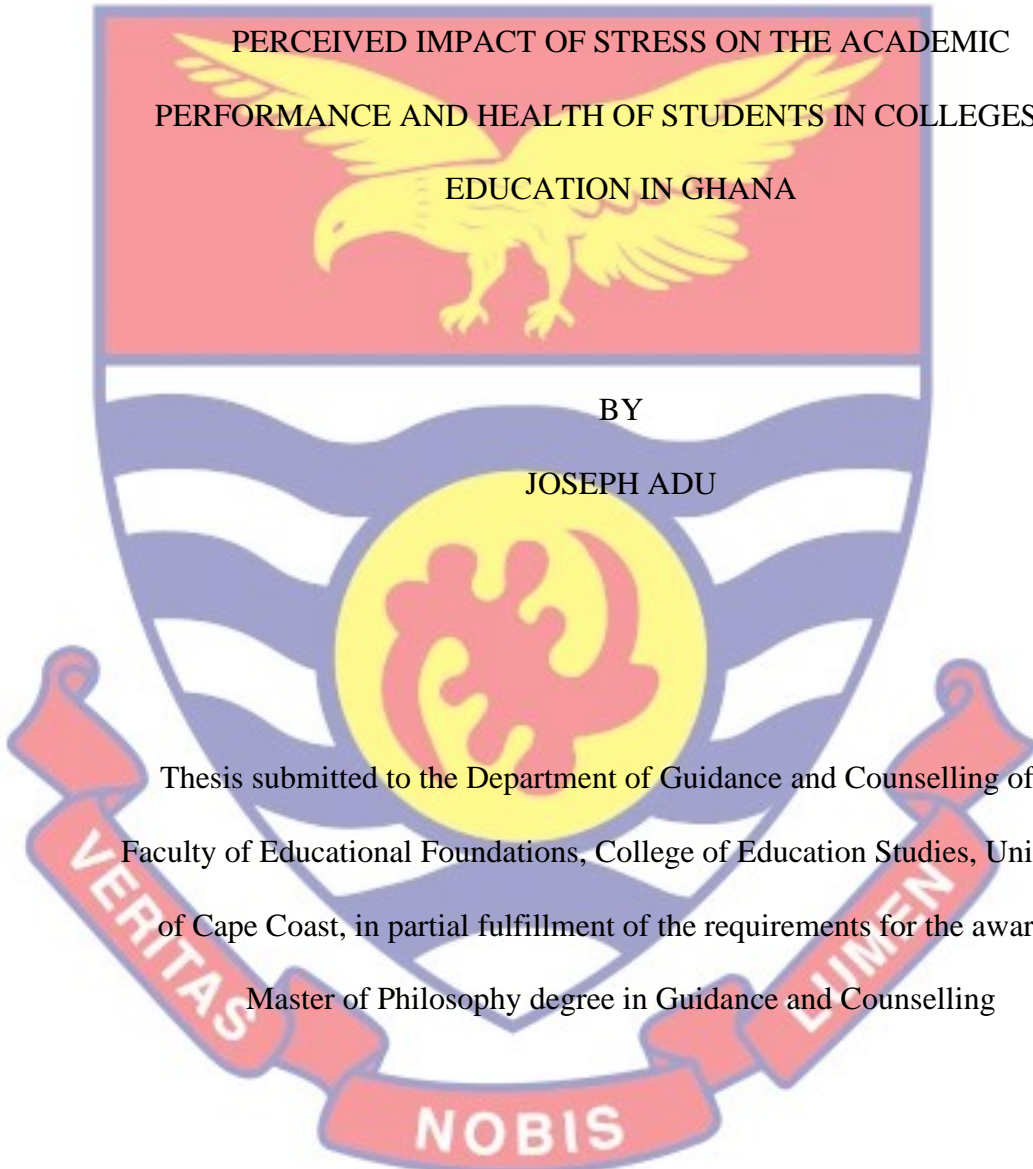


UNIVERSITY OF CAPE COAST



PERCEIVED IMPACT OF STRESS ON THE ACADEMIC  
PERFORMANCE AND HEALTH OF STUDENTS IN COLLEGES OF  
EDUCATION IN GHANA

BY  
JOSEPH ADU

Thesis submitted to the Department of Guidance and Counselling of the  
Faculty of Educational Foundations, College of Education Studies, University  
of Cape Coast, in partial fulfillment of the requirements for the award of  
Master of Philosophy degree in Guidance and Counselling

JANUARY 2023

## DECLARATION

### Candidate's Declaration

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

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

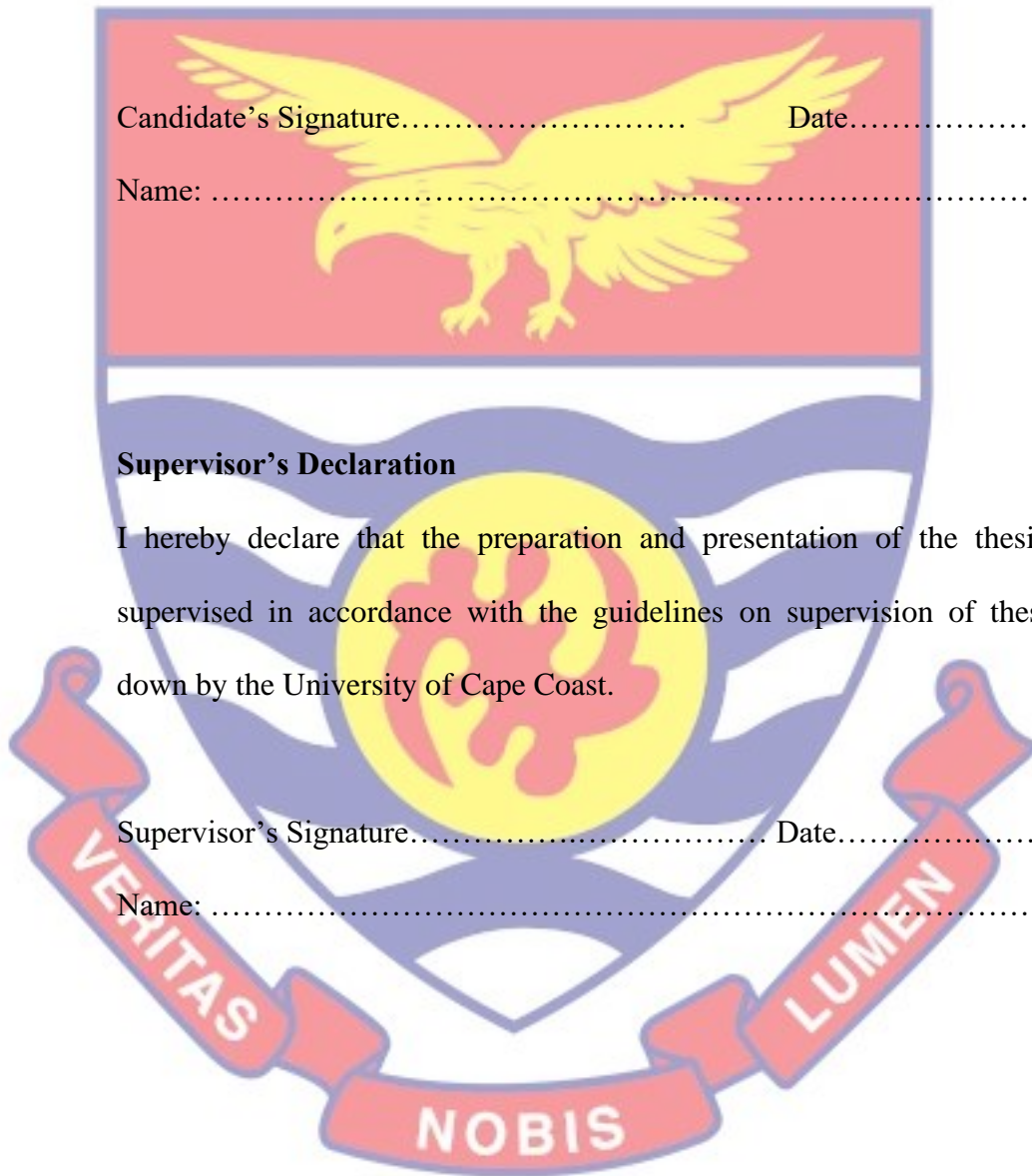
Name: .....

### Supervisor's Declaration

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

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

Name: .....



## ABSTRACT

The purpose of this study was to explore the perceived impact of stress on the academic performance and health of students in Colleges of Education in Ghana. Descriptive survey research design was adopted for the study. A sample of 275 students was selected from St. Vincent College of Education, Atebubu College of Education and OLA College of Education using stratified sampling technique. Data were collected using questionnaire adapted from Student-Life Stress Inventory, the Africultural Coping Systems Inventory (ACSI), and Duncan-Williams' (2015) Scale on Impact of Stress. Data were analysed using descriptive and inferential statistics. The study revealed that the respondents expressed stress often as depicted by their desire to be loved by everyone, finding perfect solution to problems, worrying a lot, procrastinating a lot, dealing with too many changes, huge work overload, interpersonal issues and academic workload issues. It was also found that the major causes of stress included high academic workload, lack of learning materials/resources, poor performance in examinations and difficulty reading and understanding modules. Finally, the study found that stress can impact on academic performance and health of students negatively. It was recommended that authorities of Colleges of Education should collaborate with counsellors to organise workshops for students on how to deal with their experience of stress.

## KEYWORDS

Academic performance

Colleges of Education

Health

Perceived impact

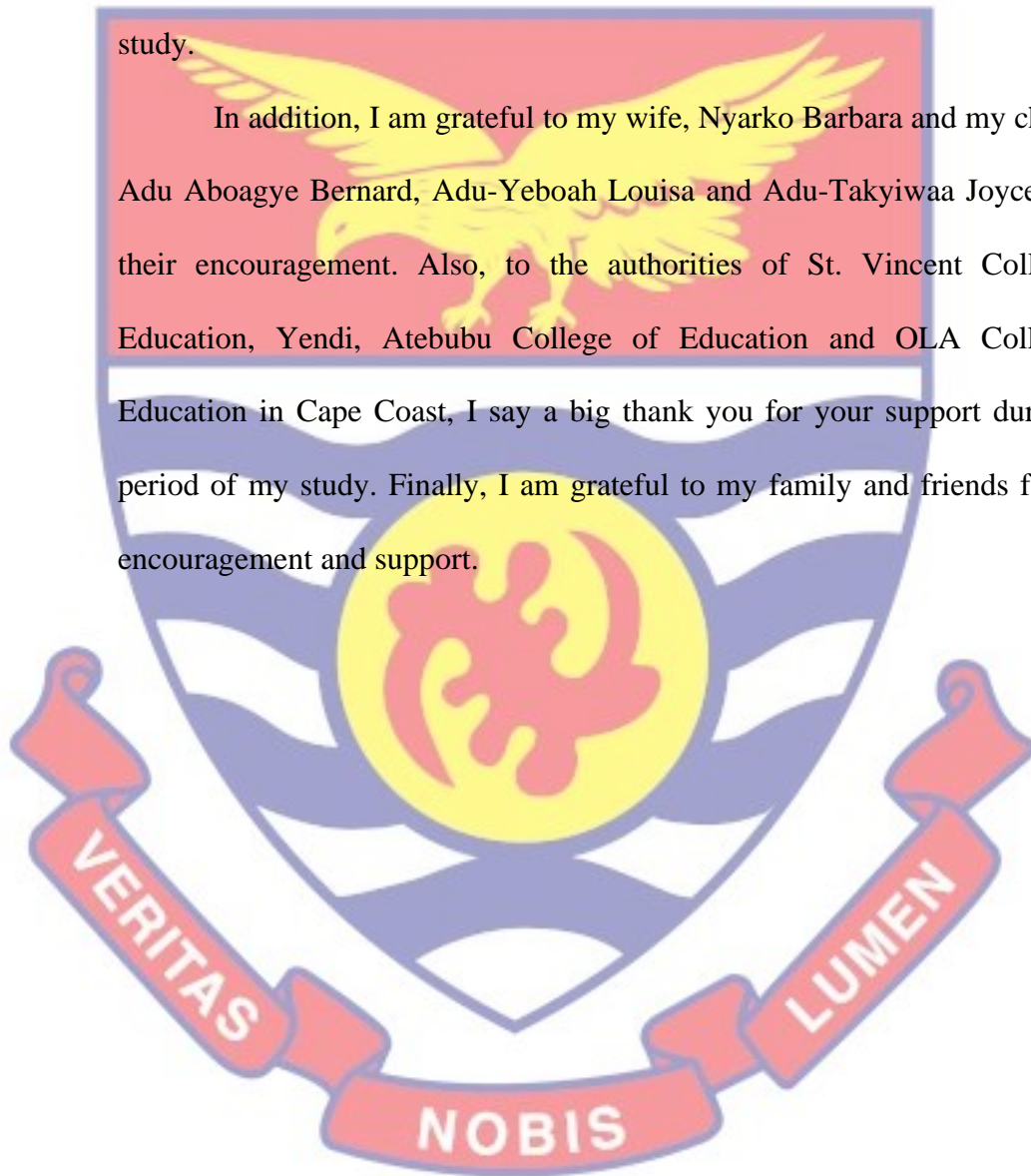
Stress



## ACKNOWLEDGEMENTS

I am grateful to my supervisor, Dr. Stephen Doh Fia for all his support, patience and encouragement throughout the period of conducting this study. I am also thankful to my auntie Adu Georgina, Mr. J. B. Karikari, my father and Paulina Addae, my sister for all their support throughout the period of my study.

In addition, I am grateful to my wife, Nyarko Barbara and my children, Adu Aboagye Bernard, Adu-Yeboah Louisa and Adu-Takyiwaa Joycelyn for their encouragement. Also, to the authorities of St. Vincent College of Education, Yendi, Atebubu College of Education and OLA College of Education in Cape Coast, I say a big thank you for your support during the period of my study. Finally, I am grateful to my family and friends for their encouragement and support.



DEDICATION

To my wife and children.



TABLE OF CONTENTS

Content	Page
DECLARATION	ii
ABSTRACT	iii
KEYWORDS	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
LIST OF FIGURES	xii
<b>CHAPTER ONE: INTRODUCTION</b>	
Background to the Study	1
Statement of the Problem	6
Purpose of the Study	8
Research Questions	9
Hypotheses	9
Significance of the Study	10
Delimitations	10
Limitations	11
Definition of Terms	11
Organisation of the Study	11
<b>CHAPTER TWO: LITERATURE REVIEW</b>	
Transactional Theory of Stress and Coping (TTSC)	13
Ryff's Theory of Psychological Well-being	16
Yerkes-Dodson Law (1908)	18

Conceptual Framework	21
Conceptual Review	22
Concept of Stress and Academic Stress	22
Effects of Stress	24
Managing and Coping with Stress	26
Empirical Review	29
Level of Stress Experienced by Students	29
Major Causes of Stress Experienced by Students	32
Impact of stress on the academic performance of students	37
Impact of Stress on the Health of Students	40
Coping Mechanisms Adopted by Students to Mitigate their Experience of Stress	42
Demographic Characteristics (Gender and Age) and Stress	45
Chapter Summary	47
<b>CHAPTER THREE: RESEARCH METHODS</b>	
Research Design	49
Study Area	50
Population	51
Sample and Sampling Procedure	52
Data Collection Instrument	53
Data Collection Procedures	57
Ethical Considerations	57
Data Processing and Analysis	58
Chapter Summary	58



CHAPTER FOUR: RESULTS AND DISCUSSION

Demographic Characteristics	59
Answers to Research Questions	60
Testing of Hypotheses	69
Discussion	75

Level of Stress Experienced by Students	75
Major Causes of Stress Experienced by Students	77
Impact of Stress on the Academic Performance of Students	79
Impact of Stress on the Health of Students	81
Coping Mechanisms Adopted by Students to Mitigate their Experience of Stress	82
Gender Difference and Stress	85
Age Difference and Stress	86
Chapter Summary	87

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND  
RECOMMENDATIONS

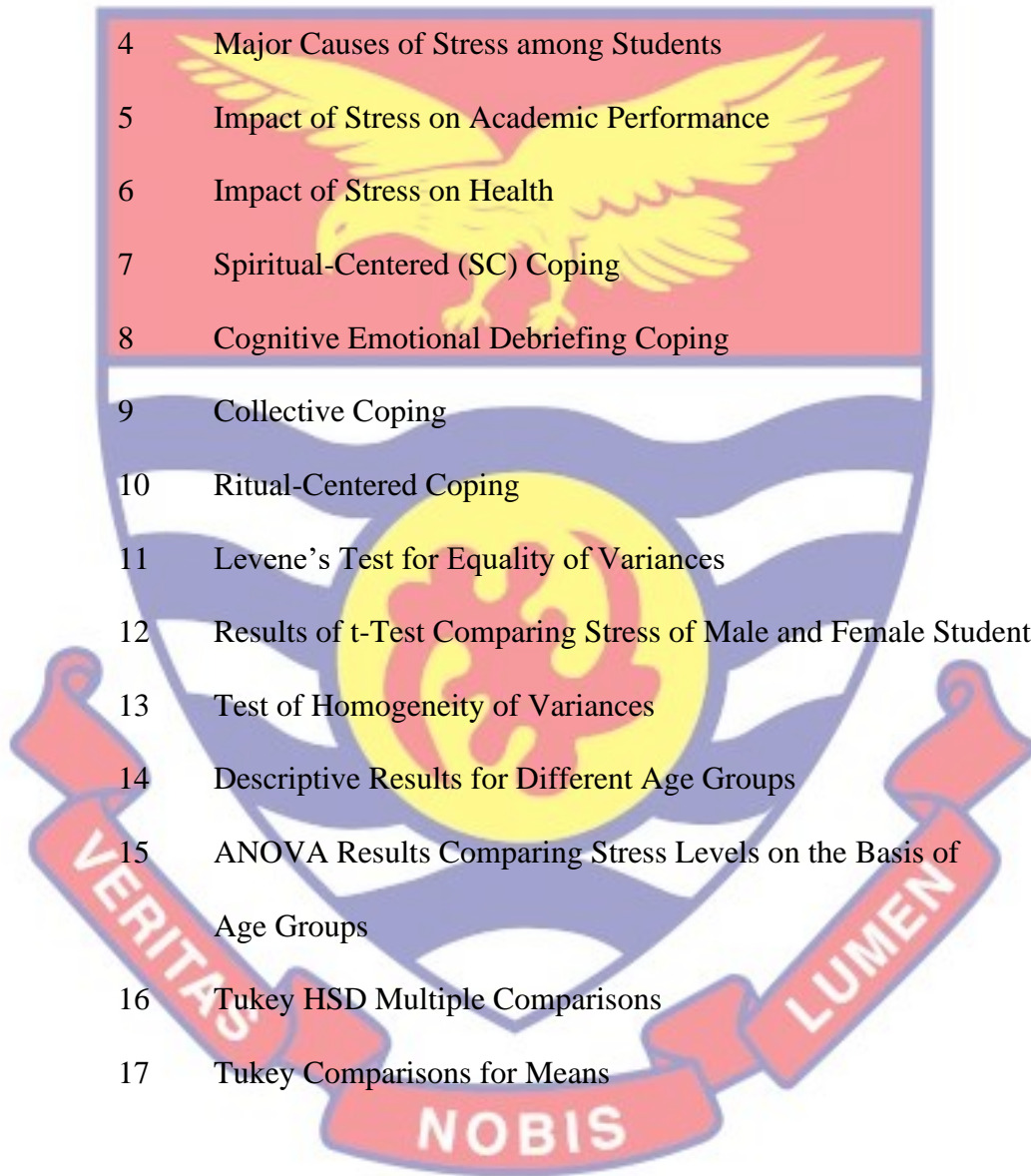
Introduction	89
Summary of Study	89
Major Findings	91
Conclusions	93
Recommendations	94
Implications for Counselling	96
Suggestions for Further Research	96
REFERENCES	97
APPENDICES	119

APPENDIX A: QUESTIONNAIRE	120
APPENDIX B: RELIABILITY OUTPUT	128
APPENDIX C: INTRODUCTORY LETTER	129
APPENDIX D: ETHICAL CLEARANCE	130



LIST OF TABLES

Table	Page
1 Sample Distribution	53
2 Demographic Data of Respondents	59
3 Level of Stress Experienced by Students	61
4 Major Causes of Stress among Students	63
5 Impact of Stress on Academic Performance	64
6 Impact of Stress on Health	65
7 Spiritual-Centered (SC) Coping	66
8 Cognitive Emotional Debriefing Coping	67
9 Collective Coping	68
10 Ritual-Centered Coping	69
11 Levene’s Test for Equality of Variances	70
12 Results of t-Test Comparing Stress of Male and Female Students	70
13 Test of Homogeneity of Variances	71
14 Descriptive Results for Different Age Groups	72
15 ANOVA Results Comparing Stress Levels on the Basis of Age Groups	72
16 Tukey HSD Multiple Comparisons	73
17 Tukey Comparisons for Means	74



## LIST OF FIGURES

Figure		Page
1	Stress Curve by Yerkes and Dodson (1908)	19
2	Conceptual Framework for Impact of Stress	21



## CHAPTER ONE

### INTRODUCTION

Education is a dynamic tool of change that is essential not only to the preservation of freedom in our society, but also to the global expansion of freedom (Akhiero, 2011). As a result, there is a presumption that every individual must be educated. The highly positive nature of the relationship between productivity and the level of education suggests that educated people might be more productive than the uneducated (Jones, 2001). The importance of education can therefore not be overstated. Another important aspect of life is the health of individuals. For students, their health is significant in the sense that it can affect their academic work and to a large extent their overall wellbeing (Pervanidou & Chrousos, 2012). This implies that the health of students cannot be undermined. Student' stress has become a common issue in diverse areas of the world regardless of the culture or ethnicity of the people (Wong, Wong & Scott, 2006).

#### **Background to the Study**

Parents, instructors, students, and society as a whole place a high value on academic accomplishments. This is because academic achievement helps people on social, economic, and personal levels (Gotlib & Wheaton, 1997; Pascarella & Terenzini, 2005). On this basis, all stakeholders of education have consistently paid attention to the factors that affect academic performance negatively. Amidst the numerous factors that have the potency to derail the health and ultimately academic performance of students is stress (Sheykhjan, 2015).

According to Campbell (2006), stress is the unpleasant response of people when they are subjected to extreme pressure or other kinds of expectations. Stress happens when a person is faced with a circumstance that the individual views to be challenging and difficult to deal with. The universality of stress can be seen in the fact that it is an unavoidable bodily state that engulfs every individual, regardless of their distinctive background characteristics, as everyone attempts to adapt to a dynamic and changing society (Bakhsh & Sayed, 2015; Bukoye, 2017; Ramachandiran & Dhanapal, 2018). An interaction with some event or stimulus triggers the occurrence of stress. A stressor has been seen as an occurrence or stimulation that leads to an uncomfortable feeling of stress (Basavanthappa, 2004). Stressors can be good or negative, and how the stressor is interpreted determines whether or not a situation is stressful.

Academic and coursework overloads (Shkulaku, 2015), financial struggles (Essel & Owusu, 2017), bad dietary and sleep patterns (So & Park, 2016), health struggles (Ng et al., 2016), and school environmental situations (Li & Lin, 2003) are several stressors mainly seen in the literature. Aside these, poor resource and time management (Bukoye, 2017), examinations (Ramli, Alavi, Mehrinezhad & Ahmadi, 2018), social appraisals and competitiveness (Ramachandiran & Dhanapal, 2018), absence of academic supervision (Radcliff & Lester, 2003), huge expectations from family and tutors (Yikealo, Tareke & Karvinen, 2018), perceptions of failure (Teh, Ngo, Zulkifli, Vellasamy & Suresh, 2015) and absence of social support (Pedersen & Jodin, 2016) could bring about stress.

According to Wani, Nagar, and Buhroo (2018), stress theorists agree that there are two types of stress: positive stress (eustress) and negative stress (stress) (distress). Eustress may be advantageous for students in terms of adaptability, as it serves as a motivation for hard effort and ultimate output (Saqib, 2018; Yikealo, Tareke & Karvinen, 2018). As a result, completely avoiding stress may not be too bad since without some form of stress, life may be exceedingly dull (Veena & Shastri, 2016). On the other side, high and mismanaged stress can have major emotional, psychological, and physical damages (Essel & Owusu, 2017; Jain & Singhai, 2018; Reddy, Menon & Thattil, 2017). This is connected to the Yerkes-Dodson Law (1908), which argues that performance rises with some level of physiological or mental stress, but only to a limit, and that performance deteriorates when stress levels become too high.

Stress is a widespread issue among children in schools. Because it has previously been shown that the impacts of stress may be good or bad, the way it is managed may have an impact on their academic outcomes and achievements (Salami, 2001). When utilized correctly, stress may be a motivation for bettering one's quality of living. Stress becomes negative when it turns out to be harmful mainly due to how the person perceives and reacts to it (Mallinckrodt & Wei, 2005). Positive stress reactions include communication, requesting help from other people, and active solving of problems.

Negative stress responses comprise rage and getting angry, shifting blames, and avoidance methods such as denying the existence of the situation (Howard & Medway, 2004). Negative stress responses slow down information

processing, impair memory, distract attention away from cognitive activities, and lower academic achievement overall (Andrews & Wilding, 2004; Shields, 2001; Struthers, Perry & Menec, 2000).

Living in college is a huge adjustment for many students, according to Nakalema and Ssenyonga (2013), because they are free to follow their interests without the influence of their parents. They must work hard in order to meet their parents' expectations, which include academic success targets (Smith & Renk, 2007). As a result, stress becomes an unavoidable part of life for college students, with academic stress being the most prominent (Oyerinde, 2004). Academic-related stress is created by a blend of stresses associated with academic work that surpass a person's adaptive capacity (Kadapatti & Vijayalaxmi, 2012). As a result, when conditions appear to endanger college students' well-being, they are more prone to react with stress (Comer, 2010). Such events can have an academic and health impact on pupils.

As a result of the sympathetic nervous system's activation, stress is connected to physiological and behavioral disorders all over the world. Physiological symptoms involve “increased heart rate”, “blood pressure”, “perspiration”, “headaches”, “fatigue”, and “sleeplessness”, as well as “muscle tension”, specifically in the neck and shoulder, “indigestion”, “constipation”, and “diarrhea”. Increased usage of alcohol, cigarettes, food, as well as lack of appetite, restlessness, insomnia, loss of interest, and difficulties focusing are all behavioural signs of stress (Lal, 2014). Also, a sense of being hopeless, variations in dietary and sleep habits, extreme melancholy, guiltiness, lack of excitement, and weight loss are some of the symptoms that might occur (Teh



et al., 2015). All these are related to the academic performance and health of the individual.

Furthermore, past studies have linked self-reported stress to troubling feelings and a decrease in student wellbeing (Carter, Garber, Ciesla, & Cole, 2006; Kessler, 1997; OECD, 2015; Robotham & Julian, 2006). The experience of stress has been connected to a variety of other mental health issues. The link between stress, depression, and anxiety, for example, is widely known (Dantzer, 2012; Dantzer, O'Connor, Lawson, & Kelley, 2011; Maes, 2008). In the vast majority of cases, major stress-related events are seen as significant indicators of the onset of depression (Kessler, 1997; Lewinsohn, Allen, Seeley, & Gotlib, 1999). Academic achievement has been found to be negatively impacted by stress (Bernal-Morales, Rodriguez-Landa, & Pulido-Criollo, 2015). Some studies have reported that in the United States, high level of self-reported stress symptoms among students were linked to worse test scores (Chapell et al., 2005; Hysenbegasi, Hass & Rowland, 2005).

In Ghana, the first teacher training institution (i.e. Presbyterian Training College [PTC]) in the country was established by the Basel Mission in 1835 at Akropong in the Eastern Region. After that, several missions followed and by 1937 (i.e. a century after the establishment of PTC) there were only six (6) teacher training institutions in the country (Aboagye, 2000). However, over the years, the number of teacher training institutions (colleges of education) in Ghana has increased currently to 43 (Ghana Education Service, 2020). Ghana has made significant efforts throughout the years to train and develop teachers in order to meet the country's workforce demands. As a result, teacher education in Ghana has changed considerably in the last

four decades. As a result of these developments, separate cohorts of instructors with various sorts of certifications have emerged (Anamuah-Mensah, 2006). Colleges of Education became the official designation for teacher training institutes having tertiary status as a result of these developments (Ghana Colleges of Education Act, Act 847, 2012).

The reforms in the colleges of education in 2012, has led to several changes in the activities within the Colleges of Education system in Ghana. As a result, the lives of students in Colleges of Education are exposed to several stressors including, the academic workload, financial burdens and navigating life in general in the colleges (Mensah, 2020). It is in this regard that the current study is conducted.

### **Statement of the Problem**

Students in higher education endure a variety of pressures, most of which are typical day-to-day frustrations like constant academic obligations. Students frequently say that they are under constant stress as a result of their academic work (UNESCO, 2012). The pressure to get excellent grades and the fear of receiving low grades are examples of such pressures. It has been found generally that stress is a contributing factor to poor sleep in young people (Bernert, Merrill, Braithwaite, Van Orden, & Joiner, 2007; Curcio, Ferrara, & De, 2006), development of non-communicable diseases, including metabolic syndrome, obesity and reduced insulin sensitivity resulting from unhealthy lifestyle habits and stress system dysregulation (Pervanidou & Chrousos, 2012). Other researchers have found that high and severe kinds of stress can result in poor academic outcomes (Kotter, Wagner, Bruheim, & Voltmer,

2017). As a result, stress among students has become a popular topic for academic research (Agolla & Ongori, 2009; Rees & Redfern, 2000).

Studies on stress among students are not lacking. Many studies on academic stress at universities throughout the world have mostly focused on students (Hanna, Wilson & Hanna, 2018; Oginyi, Mbam, Sampson, Chukwudi & Nwoba, 2018; Stankovska, Dimitrovski, Angelkoska, Ibraimi & Uka, 2018). Many academic-related stress studies are also restricted to certain class or grade levels (Bataineh, 2013) and subject or course of study, like those reading business (Azila-Gbetteor, Atatsi, Danku, & Soglo, 2015), pharmacy (Hanna et al., 2018), and medicine (Saub et al., 2013). These imply that globally, stress is still viewed as a major concern among students.

In Ghana, stress among students has been priority in research in both earlier times and present times (Azila-Gbetteor et al., 2015). As a result, a number of studies have been undertaken, with varying findings, on the experience of stress among students and how it impacts their academic performance. For example, Affum-Osei, Asante, and Forkuoh (2014) found that the majority of senior high students in Ghana's Western Region were under moderate stress, but Budu (2014) found that diploma nursing students in Ghana's Central Region were under higher stress. Amponsah and Owolabi (2011) examined stress levels among first year students in the University of Cape Coast (Ghana), revealing that the majority of them were stressed to a moderate degree. Duncan-Williams (2015) researched the extent to which academic-related stress influence academic outcomes and psychological well-being of senior high school students and established a correlation between the two.

It appears from the studies mentioned that they mostly focused on how stress affects academic work with minimal focus on health. Also, most of the studies which have been highlighted like that of Affum-Osei et al. (2014), Budu (2014), Amponsah and Owolabi (2011) and Duncan-Williams (2015) focus mainly on students in senior high schools, nursing training colleges and universities. It appears that stress levels of students in Colleges of Education in Ghana have not gained much attention. The impact of stress on academic work and health can be devastating to the student to a point where students may drop out of college (Carter, Garber, Ciesla, & Cole, 2006; Lal, 2014). On this basis, the current study seeks to find out the perceived impact of stress on the academic performance and health of College of Education students in Ghana.

#### **Purpose of the Study**

The purpose of this study was to investigate the perceived impact of stress on the academic performance and stress levels of students in Colleges of Education in Ghana. The study's specific goals were to:

1. Identify the level of stress experienced by students in Colleges of Education in Ghana,
2. Find out the major causes of stress experienced by students in Colleges of Education in Ghana,
3. Explore the impact of stress on the academic performance of students in Colleges of Education in Ghana,
4. Explore the impact of stress on the health of students in Colleges of Education in Ghana,

5. Find out the coping mechanisms adopted by students in Colleges of Education in Ghana to mitigate their experience of stress,
6. Find out the significant difference in the experience of stress of male and female students in Colleges of Education in Ghana, and
7. Find out the significant difference in the experience of stress of students in Colleges of Education in Ghana on the basis of age.

### Research Questions

Based on the purpose of the study, the following research questions guided the conduct of the study:

1. What is the level of stress experienced by students in Colleges of Education in Ghana?
2. What are the major causes of stress experienced by students in Colleges of Education in Ghana?
3. What is the impact of stress on the academic performance of students in Colleges of Education in Ghana?
4. What is the impact of stress on the health of students in Colleges of Education in Ghana?
5. What are the coping mechanisms adopted by students in Colleges of Education in Ghana to mitigate their experience of stress?

### Hypotheses

The following hypotheses were tested in the study:

- H<sub>0</sub>1: There is no significant difference in the experience of stress of male and female students in Colleges of Education in Ghana.
- H<sub>1</sub>1: There is a significant difference in the experience of stress of male and female students in Colleges of Education in Ghana.

H<sub>0</sub>2: There is no significant difference in the experience of stress of students in Colleges of Education in Ghana on the basis of age.

H<sub>1</sub>2: There is a significant difference in the experience of stress of students in Colleges of Education in Ghana on the basis of age.

### **Significance of the Study**

This study would be significant to the Ministry of Education, management of Colleges of Education, counsellors in Colleges of Education and other researchers. In the first place, the results of the study would enlighten the Ministry of Education about the common stressors of students in Colleges of Education. This can help the ministry make decisions on measures that will help students at colleges of education feel less stressed. Again, the findings of the study would aid college administrators in putting in place measures to help lessen the effects of stress on students' academic performance and health. Counsellors would also benefit from the study's findings since they will be able to give suitable counsel for individuals dealing with stress. Finally, the findings of the study would contribute to the body of knowledge on the influence of stress on academic performance and health among students in educational institutions in Ghana.

### **Delimitations**

The scope of the research was confined to the level of stress experienced by students, the key sources of stress, the impact of stress on academic performance and health, and the coping techniques used by students to alleviate their stress. The study was again confined to students at Ghanaian colleges of education. The population comprised second-year students at

colleges of education. The students were from colleges selected from the Northern Zone, Middle Zone and the Southern Zone.

### **Limitations**

The use of questionnaire in collecting the data for the study made the study limited in terms of the depth of information obtained as would have been possible with an interview guide.

### **Definition of Terms**

This section defines the key words used in the study:

**Academic performance:** This is used to refer to the output of students after instructions usually measured after examinations.

**Stress:** This is used to refer to the responses of individuals to situations deemed to be threatening or challenging. The levels of stress were measured to be either high, moderate or low depending on the mean scores.

**Academic Stress:** This is used to refer to the academic demands made on students to which they have to respond and which affect every aspect of their lives.

### **Organisation of the Study**

The research was divided into five sections. The study's introduction was covered in the first chapter. It included information on the background, statement of the problem, purpose, research questions, and significance. It also addressed the delimitation of the study, its limitations, and the definition of terms and organisation of the study.

The review of related literature is the subject of the second chapter. It contains a theoretical and conceptual framework as well as a review of relevant empirical studies. The study's research methods are discussed in the

third chapter. The research design, study area, population, sample and sampling procedure, instrument used, data collection procedure and data processing and analysis are all addressed in detail.

The fourth chapter presents and discusses the study's findings. The fifth chapter deals with the summary, conclusions, and recommendations for the study. Implications for counselling and suggestions for further research would also be given.





## CHAPTER TWO

### LITERATURE REVIEW

The purpose of this study was to examine the perceived impact of stress on students' academic performance and health at Ghanaian Colleges of Education. The study's literature review is covered in this chapter. This includes the theoretical, conceptual, and empirical reviews.

#### **Theoretical Framework**

Stress and its consequences has been the subject of several research studies. For most of these research studies, some theories have been foundational. In this study, some of the theories in relation to study are reviewed. The “Transactional Theory of Stress and Coping” and Ryff’s “Theory of Psychological Well-being” are discussed in detail. In addition, Yerkes-Dodson’s Law is discussed in this section.

#### **Transactional Theory of Stress and Coping (TTSC)**

Richard Lazarus proposed the Transactional Theory of Stress and Coping (Lazarus, 1966). The goal of the theory was to explain the dynamics of tumultuous encounters (Lazarus, 1966; Lazarus & Folkman, 1984). Stress, according to Lazarus (1966), is the outcome of a transaction between an individual and the environment, rather than an occurrence.

The TTSC is built on the interaction of three types of principles: antecedent factors, mediating processes, and result variables (Parkes, 1986). Commitments and beliefs are two personality resources that are deemed to be important as antecedents of coping. Commitments are the motivating parts of a person's personality that determine the meaning, perceived importance, and

coping strategies they utilize throughout time. The other component has to do with people's perceptions of their own skills.

The key mediator of person–environment exchanges, according to Lazarus (1966), is evaluation. There are three categories of appraisals: primary, secondary, and reappraisal. An individual's primary appraisal involves assessing what he or she believes a situation will hold for him or her. An individual evaluates the impact of stressors on their well-being. If a circumstance's demands exceed the resources the person has, he or she may conclude that the circumstance represents (a) a danger of injury or loss (threat), (b) real injury has happened (harm), or (c) the circumstance has probability for certain form of gain or outcome (benefit or challenge).

In secondary appraisal, the individual assesses whether he or she has the abilities, social support, and other assets to overcome pressures and restore the person-environment balance (Schwarzer, 2001). As a result, an individual's perception of a danger is what leads to secondary appraisal, which involves exploring the coping strategies are available and how effective they are in dealing with the threat. Re-appraisal, on the other hand, is the process of continuously evaluating, altering, or relabeling previous primary or secondary evaluations as a situation changes. As a result, something that was once considered as frightening may subsequently be viewed as a challenge or irrelevant.

The primary and secondary assessment processes are intertwined, and one has an impact on the other (Moos & Schaefer, 1993). Stress sensations rise when the impression of external pressures rises, and this might show as psychological problems. Psychological reactions include denial,

disengagement from reality, and avoidance. The continuous, dynamic reciprocal relationship existing between an individual and the environment is sometimes viewed as an interaction that results in a different state (Lazarus & Folkman, 1987). This is how the transactional stress theory received its name.

In Lazarus' transactional stress paradigm, coping is an important concept. Lazarus defines coping as a person's continuing cognitive and behavioural struggles to cope with certain external and/or internal pressures that are regarded to be beyond the individual's capacity (Lazarus & Folkman, 1984). Lazarus and Folkman described two primary types of coping: "problem-focused" and "emotion-focused" coping. Attempting to identify the problem, coming up with different solutions, considering the costs and benefits of various possibilities, altering what can be altered, and, if necessary, learning new skills are all examples of problem-focused coping mechanisms. Emotion-focused coping strategies involve "distancing, avoiding, selective attention, blaming, minimizing, wishful thinking, venting emotions, seeking social support, exercising, and meditation".

There are many diverse viewpoints on stress, from the perspective of the transactional theory of stress and coping. Several studies regarded stress to be a stimulus, but they did not evaluate how the stimulus was perceived by the individual (Bee & Bjorklund, 2004; Derogatis & Coon, 1993). Other studies looked at how people react to their surroundings (Katkin, Dermitt & Wine, 1993; Seyle, 1976). Interactionist stress theory (Lazarus & Folkman, 1987) incorporated all of these perspectives and was thus more complete, looking at issues from both the person and environment perspective. According to the interactionist paradigm, stress develops when people interact with their

surroundings. Individuals may feel stressed as a result of this interaction if they evaluate their surroundings' expectations and believe their resources are not sufficient to satisfy those needs.

In connection with the current study, it can be inferred that, how each student evaluates and appraises a particular situation will determine whether the individual will feel stressed or adapted to the college environment. However, stressful situations can be handled by some coping strategies. On the basis of this, the Transactional Theory of Stress and Coping was deemed relevant to the study. The researcher therefore sees this theory as relevant to the current study.

### **Ryff's Theory of Psychological Well-being**

The Theory of Psychological Well-being was propounded by Ryff (1989). There have been several research on psychological well-being, according to Duncan-Williams (2015) with most of the researchers referring to the term "psychological well-being" as a multitude of categories that determine psychological functioning. Ryff's (1989) thesis is founded on the premise that psychological well-being represents an individual's optimal psychological functioning and experience.

According to Ryff (1989), people's well-being is influenced by their life experiences and their interpretations of those events. According to Ryff, psychological well-being is composed of six components: "autonomy, environmental mastery, positive interpersonal relationships, life purpose, personal growth, and self-acceptance". A positive outlook toward an individual's self and one's current and past life choices is a vital component of

psychological well-being, according to the self-acceptance component (Duncan-Williams, 2015).

The component related to positive relationships with others emphasizes the importance of being valued, fulfilling interactions with other people as significant part of psychological well-being, while the component related to autonomy describes the need for people to have some feeling of independence, personal determination and personal freedom (Duncan-Williams, 2015). Individuals should be able to make their own decisions without feeling obligated to satisfy others or match cultural norms.

Furthermore, the “purpose in life component” implies that people should have life objectives and believe that their lives are significant, while the environmental mastery component emphasizes the capacity to control one's life and surroundings (Ryff, 1989). The personal growth component, on the other hand, emphasizes the need of being open to new experiences as well as continuing to improve personally. In general, Ryff's theory of psychological well-being may be inferred to be significant in the study since it reflects that numerous elements contribute to an individual's feeling of stress and overall well-being.

The theory is relevant in the study because the theory focuses on how the experiences of individuals can affect their psychological wellbeing. Based on this, the experiences of students in colleges of education can be said to be influential in their wellbeing. Therefore, the researcher deemed this theory relevant in the study.

### Yerkes-Dodson Law (1908)

The Yerkes-Dodson (1908) law, introduced by Yerkes and Dodson, argues that increasing levels of arousal can boost performance to a degree. Increasing arousal seek to enhance performance, but only to a degree, according to the Yerkes-Dodson Law. Performance declines however when levels of arousal become extremely high (Cherry, 2020).

Yerkes-Dodson Law originated in 1908 by two psychologists, Robert Yerkes and John Dillingham Dodson. These two observed that little electric tremors might motivate rats to go through a maze, but that if the shocks were too powerful, the rats did escape in different areas (Cherry, 2020). They argued that higher degree of stress and arousal can help people keep their motivation and concentration on the assignment or duty to be performed but to some certain extent.

The law's original goal was to characterize the link between the strength of a stimulus and the ability to form habits for activities of varying degrees of discriminating difficulty. However, it has been referred to as the outcomes of “punishment, reward, motivation, drive, arousal, anxiety, tension, or stress on learning, performance, problem-solving, coping, or memory” by subsequent generations of researchers and textbook authors; and the task variable has been described as “difficulty, complexity, or novelty” when it is not entirely taken out (Teigen, 1994).

An individual is capable of handling a far higher range of arousal levels when performing a relatively simple activity. Extremely low or extremely high arousal levels are less likely to impact household tasks like washing laundry or loading the dishwasher. If an individual is working on a

significantly more complicated activity, such as writing a paper for class or memorizing difficult knowledge, low and high arousal levels will have a considerably greater impact on performance. If the individual's arousal levels are too low, he or she may drift off or even fall asleep before completing the activity, while excessive arousal levels might be as troublesome, making it impossible to focus on the material for longer duration to finish the task.

With increasing excitation levels, the Yerkes-Dodson Law is usually seen as a bell-shaped curve that rises and then falls (Ross, 2017). The Yerkes-Dodson law is frequently described as the inverted 'U' model because of this. As a result, the letter 'U' was flipped inside out. The form of the curve might change according to variances in tasks. The connection is monotonous for basic or well-learned jobs, and performance improves as enthusiasm grows. For complicated, uncertain, or challenging activities, however, the link between arousal and performance reverses, implying that performance declines as excitement rises.

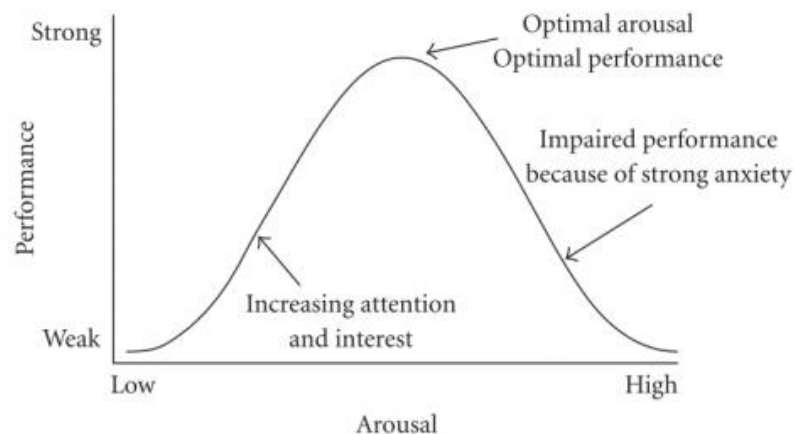


Figure 1: Stress Curve by Yerkes and Dodson (1908)

On the one hand, the energetic effect of arousal is shown by the upper section of the inverted 'U.' On the other side, the detrimental effects of stress on cognition including attention, memory, and problem-solving add to the decline. Four essential aspects influence the Inverted U-Curve: skill level, personality, anxiety characteristic, and work complexity (Ross, 2017).

Because they can rely on their well-rehearsed responses, a highly trained individual who is confident in their abilities is more likely to effectively manage situations when there is a lot of pressure, and so their skill level impacts their performance in the job at hand. Also, because extroverts are thought to be better at handling pressure than introverts, the individual's personality has a large role in how they handle pressure (Ross, 2017). As a result, it's reasonable to infer that introverts do better when they're not under pressure. Furthermore, the difficulty of a task has an impact on an individual's performance. Sweeping a room, for example, is not as tough as statistical analysis. However, the difficulty of a work may differ from one individual to the next.

Despite the fact that it is over a 100 years old, the Yerkes-Dodson Law remains relevant today. In reality, it continues to be researched, particularly in the areas of work and athletic performance. The Yerkes-Dodson Law, in general, demonstrates that there is a connection between high stress levels and poor performance (Cherry, 2020; Ross, 2017). Based on this, the Law is considered a relevant model in the current study. Therefore, it is inferred that the experience of stress by students when moderate can be a boost for academic performance but when stress becomes overly high then it can affect academic performance negatively.



## Conceptual Framework

The conceptual framework which serves as foundation for the current study is shown in Figure 2. The conceptual framework comprises the key variables in the study.

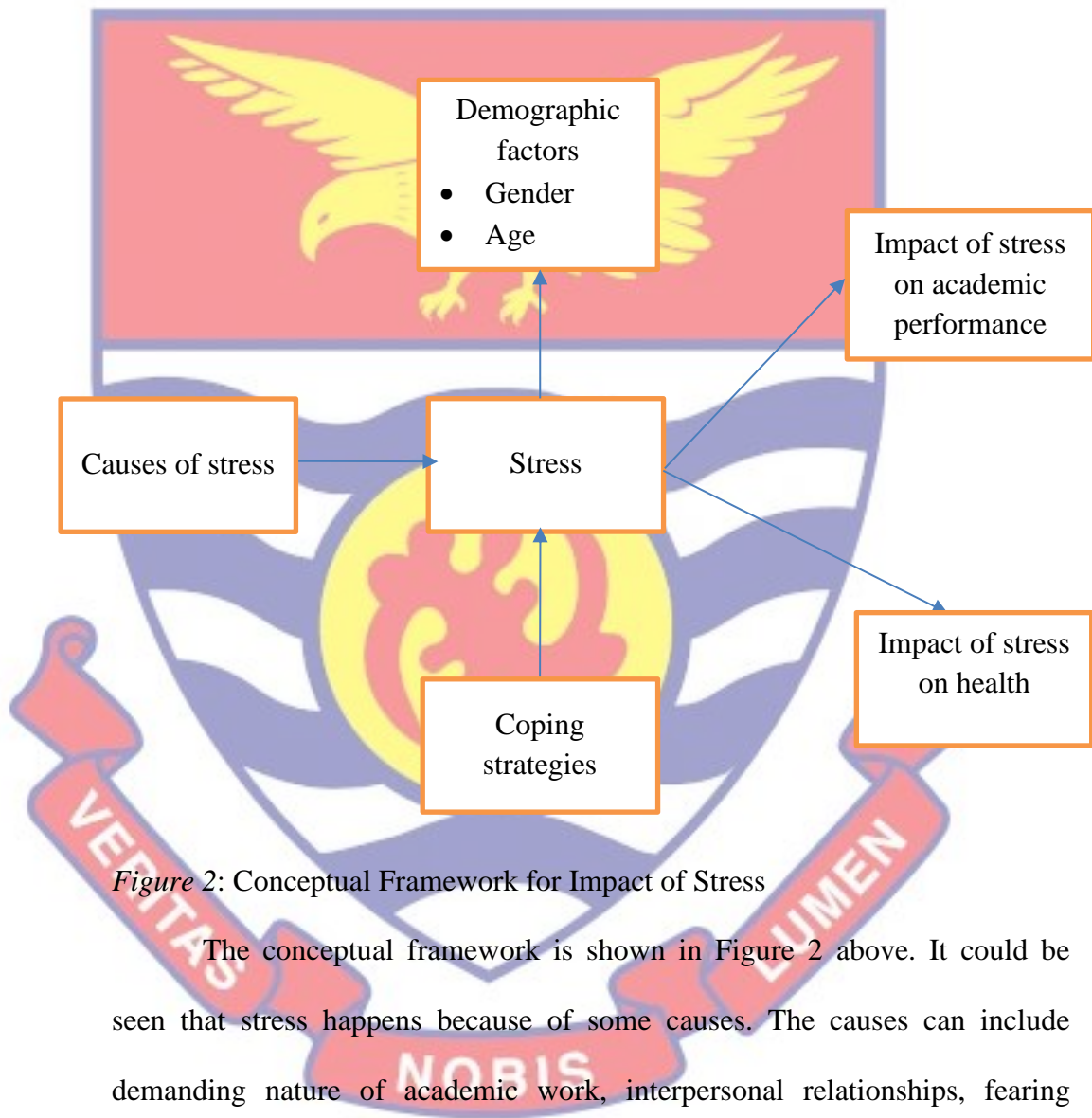


Figure 2: Conceptual Framework for Impact of Stress

The conceptual framework is shown in Figure 2 above. It could be seen that stress happens because of some causes. The causes can include demanding nature of academic work, interpersonal relationships, fearing failure, inadequate preparations, too much tasks and huge expectations to excel (Conner, Pope & Galloway, 2009). It is also seen in Figure 2 that stress can have an impact on the academic achievement and the health of students. This has been confirmed in several studies (Busari, 2012; Essel & Owusu,

2017). From Figure 2, it is demonstrated that some other factors such as gender and age of students are affected in the experience of stress by students. However, the experience of stress can be dealt with through the coping strategies adopted by the students. Students can adopt several coping strategies that may be positive or negative in response to the stress they experience

(Baldwin, Wilkinson & Barkley, 2000).

### **Conceptual Review**

The main concepts in the study are discussed in this section.

### **Concept of Stress and Academic Stress**

Stress is described as how the body reacts to a range of external stressors (Crum, Salovey & Achor, 2013). When the body's homeostasis of balance is disrupted, the body responds with an internal defense mechanism and fights back to defend itself. Stress may also be seen as the body's way of responding to any type of threat. Stress reactions can include “increasing heart rate, blood pressure, muscle tension, and respiration, as well as a decrease in digestive and sexual activities” (Kalli & Shehu, 2018, p. 83).

Greenberg and Baroon (2000) opined that stress involves a series of psychological, physiological, and emotional reactions to a stimulus. It's about what the individual perceives to be the gap stressors and the capabilities of the person to satisfy these expectations (Malach-Pines & Keinan, 2007; Topper, 2007; Vermunt & Steensman, 2005; Vermunt & Steensman, 2005). The presence of stressors, in the view of Chen (2009), influence and lead to stress. According to Feng (1992) and Volpe (1993), everything that challenges a person's ability to adapt or stimulate a person's body or mind can be said to be a stressor. Also, a stressor, according to Basavanthappa (2004), is an

occurrence or any impetus which causes people to have stressful lives. Stress can manifest itself in a variety of ways.

Positive stress (Eustress) and negative stress (Stress) are two types of stress (Distress). According to Shahmohammadia (2011), eustress is a positive emotion that leads to disease, whereas distress is a negative emotion that leads to disease. An incident in a person's life, such as failing in examinations, divorce, debt notice, taxes, and so on, causes this form of misery. Eustress is a type of happy stress triggered by a positive life event such as winning an award, organizing or being in attendance at a wedding, or earning a surprisingly good test score. Individuals can participate in life's challenges thanks to Eustress (Holahan, Moos, Holahan, Cronkite & Randall, 2001).

According to Aafreen, Priya, and Gayathri, stress happens when a person's ability to deal with their situation is surpassed by a combination of internal and external pressures (2018). For many young adults, college and school are the best years of their lives. Depression, worry, and stress can all have a negative impact on these crucial years. Stress has a substantial influence on academic performance and behavior in those who are unable to control it.

One aspect of stress that is of interest in the current study is academic stress. Several definitions have been offered for academic stress. Academic stress is described by Dwyer and Cumming (2001) as the academic pressures placed on students to which they must react to and which have an impact on their physical, psychological, and behavioral life. Students have a variety of reactions to academic activity. Academic work at college can be challenging for some students since it marks a significant transition from high school.

Academic success necessitates commitment, sacrifice, self-discipline, drive, a positive connection between students and lecturers, and the capacity to manage a broad array of obligations and problems (Imonikebe, 2009). Students are under a huge deal of stress because of all of these.

The easiest way to understand academic stress is to look at how different students react to different forms of stress. Some children have high likelihood of being able to deal with stress than others. On the other side, a person's relationship with another adult who gives counsel, guidance, or support can help to relieve stress (Bernier, Larose, Boivin, & Soucy, 2004; Soucy & Larose, 2000).

### **Effects of Stress**

Acute stress symptoms might include headaches and other musculoskeletal pain, as well as an increase in blood pressure and irritability in the individual who is going through it (American Psychological Association, 2013). Acute stress is followed by some episodes of stress or consistently long-term stress. Thus, acute stress occurs on a consistent basis which corresponds to living in a chaotic environment. Chronic stress, which follows episodic stress, is stress which has become a part of an individual's life, whether it's the stress of being a dysfunctional family or being a relationship that perpetuates abuse, or the stress of poverty's relentless grip on an individual's opportunities. The experiences of "regular headaches or migraines, hypertension, chest pain, and heart disease" are all symptoms of prolonged stress (Hill, 2014). Chronic stress describes the sort of stress that people experience on a regular basis. Acute or episodic stress has significantly less severe consequences than chronic stress, which can result in violence and,

in extreme cases, suicide. It frequently leads people to assume that they are trapped in a bad situation with no way out (Hill, 2014).

Stress touches almost every segment of life. Stress, according to Olape, Lasiele, Chiaka, and Abidoeye (2017), is a significant cause of illness. It is hazardous to an individual's psychological and physical wellbeing, and it might result in a complete breakdown of the person's system. Lack of appetite, difficulty retrieving from memory, inability to concentrate, sorrow, impatience, anxiety, and high blood pressure have all been associated to stress in Nigeria (Adewole, cited in Olape et al., 2017). Stress has a variety of impacts, according to several writers.

Stress can negatively affect an individual's "psychology, physiology, and sociology" (Lin & Chen, 2009); significantly reduces learning and retention (Saipanish, 2003); prevents suicidal thoughts (Oginyi, Mbam, Sampson, Chukwudi, & Nwoba, 2018); and lowers productivity (Oginyi, Mbam, Sampson, Chukwudi, & Nwoba (Essel & Owusu, 2017). Aside these, depressive disorders (Busari, 2012); general lethargy and poor sleeping habits (Ramachandiran & Dhanapal, 2018); eating disorders, drug and alcohol abuse (Duncan-Williams, 2015); and decreased student motivation and excitement (Ackon, 2014).

Excessive exposure to school-related stress can lead to "physical, emotional, and behavioural symptoms" such as exhaustion, rage and anger, sadness, and a drop in academic accomplishments (Copeland, 2008; Muir, 2006; Sedere, 2010; Wilde, 2008). The following are some of the most common side effects of prolonged or high stress:

1. Physical ailments;

2. Sleep problems;
3. Anxiety and depressive disorders;
4. Being irritable or always on edge;
5. Reduction in academic accomplishments;
6. Interpersonal withdrawal;
7. Alcohol and drug usage; and
8. Academic dishonesty.

### **Managing and Coping with Stress**

In stress literature, the term "coping" has several meanings, according to Shahmohammadia (2011). Coping can be seen as a means of handling or managing situations when a solution is not present in sight (Park & Adler, 2003). Lazarus, one of the first stress and coping researchers, believed that coping entails dealing with difficulties that are beyond one's adaptive capacity (Lazarus, 1997). Lazarus highlighted the importance of cognitive processes in coping mechanisms, as well as the significance of coping in determining the quality and degree of emotional response to stress. As a result, people constantly self-regulate their emotional reactions in a number of ways, including as delaying unpleasant experiences, changing potentially dangerous circumstances, or just distancing oneself from them (Lazarus, & Cohen, 1977).

According to Moos and Billings (1982), the coping process can be grouped in diverse ways. They did, however, divide coping techniques into three categories. They are as follows:

*Appraisal focused coping:* This covers the strategies involving how individuals modify the way they think concerning the stressors they encounter.

*Problem focused coping:* This displays a desire to take action in order to reduce the stressful situation. Individuals that apply problem-focused solutions want to get to the base of the issue. They accomplish this through learning more about the problem, developing new abilities to deal with it, and reorganizing their lives (Shahmohammadia, 2011).

*Emotion focused coping:* To control the emotional impacts of difficult or possibly stressful situations, this requires letting go of built-up emotions, diverting one's attention, dealing with aggressive attitudes, meditating, and adopting systematic relaxation habits.

According to Shahmohammadia (2011), there are some other forms of coping strategies. These are discussed below:

*Active coping:* This speaks of a person's capacity to deal with unpleasant situations by going straight to the source of the issue or pro.

*Avoidant coping:* This is a term that describes how a person copes with difficult situations by avoiding them. This strategy induces a mental condition that stops people from tackling the subject head-on. This seems to be a psychological indicator of a bad response to a sequence of stressful events (Holahan & Moos, 1987).

Students utilize a variety of coping mechanisms when they are stressed at school, according to the research. Some cope passively through “avoidant coping, drug abuse, denial, and behavioural disengagement”, while other students coped actively through “acceptance, planning, and positively reframing and taking the necessary steps to overcome academic stress” (Baldwin, Wilkinson & Barkley, 2000; Macan, Shahani, Dipboye & Philips,

1990). Sports, music, hanging out with friends, and sleeping are some of the other coping techniques employed by students (Shaikh et al., 2004).

Each difficulty or circumstance, in general, needs the application of a different coping strategy. As a consequence, a particular strategy may be useful or less useful on the basis of whether the individual considers the situation to be hazardous (Lazarus & Folkman, 1984; Carver, Scheier & Weintraub, 1989). When presented with uncontrollable conditions, more optimistic people use more successful ways; but, when confronted with uncontrollable situations, they are more prone to choose ineffective remedies like acceptance or submission to the situation at hand (Scheier, Weintraub & Carver, 1986).

Students in higher education may endure several difficult shifts and transitions, which often increases the amount of stresses they confront in this sector. Some researchers have come up with a variety of techniques that students use in reaction to such stressful conditions. For example, Denovan and Macaskill (2013) discovered that under stressful situations, university students used a diversity of coping techniques such as being optimistic, hopeful and having self-control to aid in the adjustment and adaption process. Sheykhjan (2015) also mentioned that eating healthy, exercising, sleeping well at night, avoiding drug addiction, setting realistic goals, developing stress management skills, being organized, being positive, and building resiliency are all techniques that can assist students in dealing with academic stress. It has been demonstrated that young people may utilize a number of coping techniques to cope with stressful situations.



Heinrichs, Baumgartner, Kirschbaum, and Ehlert (2003) observed that social support reduced cortisol, anxiety, and stress levels in individuals. People with a huge social support system tend to be able to handle lot of stress and do it more effectively. At all levels, including personal, societal, and institutional, academic stress management is becoming increasingly crucial.

This is because improving a student's total well-being will benefit not just the individual but also the institution's overall productivity (Reddy, Menon & Thattil, 2018).

### **Empirical Review**

Some of the already studies related to this current study are discussed in this section. The review is done under following sub-headings:

1. Level of Stress Experienced by Students
2. Major Causes of Stress Experienced by Students
3. Impact of Stress on Academic Performance of Students
4. Impact of Stress on Health of Students
5. Coping Mechanisms Adopted by Students to Mitigate their Experience of Stress
6. Demographic Characteristics (Gender and Age) and Stress

### **Level of Stress Experienced by Students**

Stress is an unavoidable part of college life, and it has a substantial impact on a student's ability to cope (Dusselier, Dunn, Wang, Shelley & Whalen, 2005). College students have been identified to experience distinctive set of pressures that might negatively impact their daily lives (Garrett, 2001). Stress levels of students have been the subject of several studies. Elias, Ping, and Abdullah (2011) evaluated “the stress and academic performance of

undergraduate students from several disciplinary areas at a local university”. Cluster sampling was used to choose 376 students to be part of the study. The “College Undergraduate Stress Scale” was used in gathering data in the study. Inferring from the results, it was shown that students had moderately experienced stress. Out of all the students, those offering medicine were the most stressed out. The results also showed that first-year students were not too stressed. The majority of stressors were related to students' academic work. Undergraduate students' stress levels were shown to have a substantial but mild negative association with their academic success.

Pierceall and Keim (2007) investigated the “stress levels of students at two community colleges in southern Illinois”. The “Perceived Stress Scale” was utilised in collecting data from the students. From the results, it was realized that 75% of the respondents experienced moderate stress, 12% had high level of stress group, and 13% had low level of stress. Regarding gender, females were shown to be more stressed than males. Talking with family and friends, relaxation events, and exercises were determined to be the most common ways to cope with stress. Drinking alcohol, smoking, and using illicit substances were among the less ideal coping behaviors.

The relationship between stress and student health was investigated by Hudd et al. (2000). A random poll of 145 students was taken. From the study, 52% of college students had high stress levels over a typical semester. Hudd et al. also observed that girls and non-athletes had higher likelihood to be "stressed," and that "stressed" students were less probable to participate in beneficial activities and more likely to engage in harmful behaviours (e.g.,

eating junk food). Students who were under more stress had worse self-esteem and had a negative opinion of their health.

Shahmohammadia (2011) studied high school students' coping strategies, namely in the 11th and 12th classes. A sample of 100 pupils from public-owned secondary schools in Tehran in the 11th and 12th grades was chosen. Respondents were given a stress and coping strategy questionnaire to answer. From the results, 26.1% of the students experienced stress.

Affum-Osei, Asante, and Forkuoh (2014) explored “stress and academic performance among 120 senior high school students in the Western Region, Ghana”. The "Students-Life Stress Inventory (SSI)" and the West African Examination Council's Mathematics Achievement Test were used to collect data (W.A.E.C). The results indicated that the bulk of the students had moderate stress levels, but none of them had severe stress levels. The study also discovered that there was no connection between students' reported stress levels and their academic performance. In addition, schools in urban regions did better on the examinations than schools in rural areas, according to the findings. These findings can assist educational stakeholders offer the required mechanisms for students to deal with or manage stress and improve their academic performance.

Budu (2014) investigated stress perceptions and causes among undergraduate and diploma nursing students. Budu adapted the “Hassles Assessment Scale” for the study and this was completed by 170 students. The students who were offering diploma programmes had high levels of stress while the undergraduate nursing students had average levels of stress levels. The implication is that all the students were stressed, though, at different

levels. In addition, females were shown to be more stressed than males in the research. The fact that both nursing groups had significant stress levels supports the idea that stress management should be addressed among nursing students.

Amponsah and Owolabi (2011) examined the “stress levels of first-year undergraduate students at the University of Cape Coast in Ghana”. In all, 398 students were administered the “Perceived Stress Scale (PSS)”, and the results disclosed that 70% of the respondents experienced stress at moderate level while 3.5% experienced higher levels of stress. In general, students’ stress levels were judged as moderate by the majority of the respondents.

#### **Major Causes of Stress Experienced by Students**

Several research studies have been undertaken on the causes of stress experienced by students. Reddy, Menon, and Thattil (2018) investigated the causes and consequences of academic stress in teenagers in order to develop effective intervention options. The "Academic Stress Scale" was utilized in the study. The research found personal shortcomings, fear of failing, relationship problems with teachers and colleague students, and inadequacy of infrastructure as drivers of stress. This study also discovered gender disparities in stress experiences. The study was important because knowing the origins of stress might assist school psychologists and counsellors build effective counselling modules and intervention tactics to help pupils cope with stress.

In a study of 220 international students at a comprehensive Midwestern university, Msengi (2007) looked at the “sources of stress, its impact on health behaviours and academic performance, and the coping mechanisms used by foreign students to manage stress”. The research was conducted utilizing a

quantitative approach and a descriptive design. The study enlisted the participation of 200 international students who were enrolled at the institution in 2003. For international students, data was collected using the "Sources of Stress, Health Behaviours, and Academic Performance Scale." The t-test, ANOVA, chi-square, and bivariate correlation were utilised to analyse the data. The findings revealed that estrangement or prejudice, communication or language issues, feeling lonely or nostalgia, financial difficulties, and academic pressures were all sources of stress for international students.

Opoku-Acheampong et al. (2017) carried out a "school-based longitudinal study to investigate the relationship between stress and the quality of life of undergraduate pharmacy students". Data was gathered using the "10-item Perceived Stress Scale" and the brief version of the "WHO Quality of Life Scale". The top stresses recognized in the survey were huge quantity of content to study (88.2%), writing lab reports (78.2%), continual pressure to obtain and keep outstanding grades (66.4%), and the inadequacy of relaxation time (46.4%).

Several other studies have also revealed the various stressors that students face. Agrawal and Chahar (2007) conducted research in India to find out the extent and types of stress experienced by engineering and management students. According to the findings, students were suffering "role overload", "role stagnation", and "self-role distance". Furthermore, it was discovered that the large nature of syllabus increased the stress levels of students. Male students were also more likely to feel trapped in their roles than female students. On any of the role pressures, however, no significant differences

were detected on the basis of level and programme of study. The findings were reflective of the country's social and educational atmosphere.

Deb, Strodl, and Sun (2015) investigated "Indian high school students' academic stress and mental health, as well as the connection between academic stress and a variety of psychosocial characteristics". The sample comprised 190 students from three public and three private schools in Kolkata, India. Data was collected using a specific-tailored questionnaire and the "General Health Questionnaire." Academic pressure induced stress in about two-thirds of students (63.5%), with no significant differences in gender, age, grade, or a variety of other personal factors. Additionally, 66% of the students indicated that parental pressure to do well in school brought about stress. The influence of parental pressure on students depended on their educational qualification, nature of job, personal teachers and academic achievement. Students, whose fathers were without tertiary education, were more sensitive to academic pressure. Approximately one-third of the students (32.6%) showed indicators of psychiatric illness, and 81.6% said they were anxious about exams. Academic stress was also associated with parental pressure and mental disorders, whereas exam-related anxiety was linked to mental health concerns.

Ang and Huan (2006) also looked at the "relationship between academic stress, depression, and suicidal ideation among Singaporean youths". The study employed a sample of 1,108 Asian teenagers aged 12 to 18 years old from a Singapore secondary school. Increased expectation was revealed to be related to high levels of stress.

The influence of students' perceived stress on their academic performance was investigated by Talib and Zai-ur-Rehman (2012). The sample was made up of 199 individuals from Rawalpindi and Islamabad. Students' perceptions of stress were identified to have a significant negative impact on their academic achievement. Furthermore, poor academic achievers and high academic achievers, as well as low stress and high stress groups, had substantially different mean stress scores. Male and female students' stress levels, on the other hand, did not differ much, however engineering students' reported stress differed significantly from management sciences students. Content of the subject, sleeping issues, and interpersonal activities were the top contributors of stress impacting students' academic achievement.

Sheykhjan (2015) also conducted a research to determine the effectiveness of health education measures for dealing with academic stress. Sheykhjan revealed that one out of every four children suffers from an "emotional, social, or physical health problem" that affects learning. Also, it was shown that "poor nutrition, lack of physical exercise, substance misuse, family and social hostility, mental health disorders, and variables influencing neonatal development during pregnancy" were among the challenges of child development. These issues were seen to be causes of stress for students.

The study of Shahmohammadia (2011) also revealed that fear of not being accepted into tertiary education, examinations, lot of information to learn, difficulties understanding subjects learned, too much homework, and a jam-packed school schedule were among the top 10 stresses among students. All of these concerns had to do with schoolwork.

Adom, Essel, and Chukwuere (2019) investigated “academic stress among students and lecturers in Ghanaian higher education institutions”. The study was mixed in nature and so questionnaire, interview schedule and focus group discussions were utilised in data collection. In all, 478 individuals were involved in the research. The findings established that lack of proper time management, postponements, having huge unattainable expectation, eating disorders, sleeping disorders and problematic exercise patterns were the major causes of academic stress in Ghanaian institutions.

Adom, Essel, and Chukwuere (2020) examined the causes of stress and coping mechanism in tertiary institutions in Ghana. By using questionnaire, interview schedule and focus group discussion several findings came out. Specifically, it was identified that poor scheduling, delays in carrying out assignments, eating, sleeping and exercising disorders, and unreasonable academic expectations. According to the study, effective academic stress management strategies included setting attainable academic targets, proper time management, proper sleeping, eating and exercising habits.

Adom, Chukwuere, and Osei (2020) investigated the impact of stress on pupils. A comprehensive search was conducted on current studies linked to stress using research methodologies such as desk survey and document analysis. Academic stress has been found to help promote academic effort, bring about excellence in academic performance, and improving productivity among faculty members in higher education institutions when handled appropriately.



### Impact of stress on the academic performance of students

How stress affects students' academic performance has been studied in the literature. Olape, Lasiele, Chiaka, and Abidoye (2017) looked at the “relationship between stress levels and academic performance in Nigeria's Kwara State institutions”. The 300 participants in the research were recruited via proportionate stratified random sampling. The “Students’ Stress Level Questionnaire (SSLQ)” and the “Students’ Academic Performance Proforma (SAPP)” were used to gather data. The study found that an association existed between student stress levels and academic success. There was also a significant association between “personal stress, interpersonal stress, environmental stress, achievement stress, and academic success”. According to the findings, institutions should team up with the Counselling and Human Development department to offer stress management seminars and workshops. It was also proposed that university administrators develop a conducive learning environment in order to boost academic performance and reduce stress.

Elias et al. (2011) examined how related stress and academic was, among 376 Malaysian university students at the University of Putra. They found a negative connection between student stress and academic outcomes, albeit, a weaker one. Stress among secondary and postsecondary students was studied by Pascoe, Hetrick, and Parker (2019). The researchers looked at how academic stress affected students’ learning ability and achievement, as well as their mental wellbeing concerns like depression and anxiety, sleep problems, and drug misuse. Academic-related stress has been shown to be a significant source of worry for students, with negative effects on learning ability,

academic achievement, quality of life, overall educational outcome and job outcomes.

Kotter, Wagner, Bruheim, and Voltmer (2017) conducted a “study of 456 German undergraduate medical students” and found that higher reported academic-related stress led to poor performance academically. Hill's (2014) questionnaire-based study on the effects of stress on college freshmen discovered that students with high stress levels and poor coping capacities performed poorly in their academic work. In a study of 121 Hong Kong medical students, high levels of self-reported stress were also connected to poor academic achievement (Stewart, Lam, Betson, Wong, & Wong, 1999). These findings indicate that academic stress has a significant influence on students' academic outcomes. Specifically, those with high levels of perceived stress had high likelihood to have academic difficulties. Msengi (2007) investigated “the impact of stress on 220 international students studying at a comprehensive Midwestern university” and discovered that stress had a stimulating effect on academic progress. As a consequence, stress aided the performance of international students.

Other research works, on the other hand, have shown no link between stress and poor academic outcomes. Yucha, Kowalski, and Cross (2009) evaluated “whether students assigned to a home hospital experience less stress and have improved academic performance”. Each semester, the “Student Nurse Stress Index (SNSI)” and “Spielberger's State of Anxiety Scale” were utilized to assess stress. According to the study, there were no statistically significant variations in “age, sex, marital status, ethnicity, or the score on the

entering nurse entrance examination” between those placed in home hospital clinical placement and those in control clinical placement.

Regardless of the fact that no statistically significant difference existed between the groups, Yucha et al. (2009) reported that “students’ views of academic workload, clinical worries, interface anxieties, and state anxiety varied over time”. In terms of specifics, “academic workload and state anxiety” reduced over time for those assigned to home hospital compared to those in the control placement. Despite disparities in anxiety and perceived academic workload among students, academic performance was unaffected.

Azila-Gbettor, Atasi, Danku, and Soglo (2015) investigated stress factors and their consequences on academic achievement among students offering Business at Ho Polytechnic. This research was conducted using a cross-sectional research approach. A total of 275 students were sampled using a multistage sampling technique and were given a questionnaire to complete. Using descriptive data like mean scores and standard deviations, the most prevalent sources of stress were identified. The significance of variations in stress levels by demographic characteristics was determined using non-parametric inferential statistics. Finally, the impacts of stress on students' academic accomplishments were determined using Spearman's correlation coefficient. The results showed no significant association between stress and academic accomplishments.

In addition, Zajacova, Lynch, and Espenshade (2005) revealed that academic self-efficacy is a stronger and more reliable determinant of academic achievement than stress in a study of 107 students attending a large urban commuter university. Similarly, Sanders and Lushington (2002) found no

indication of a connection between high stress levels and poor academic performance in their study at an Australian Dental school.

Duncan-Williams (2015) examined how “academic stress and performance affected the psychological well-being of remedial students in Senior High School (SHS) aged 18 to 25 years”. Data was gathered from 182 remedial SHS students from two Accra remedial schools. The "Student-Life Stress Inventory (SLSI)", "Depression Anxiety Stress Scale (DASS- 42)", "Africultural Coping Systems Inventory (ACSI)", "Multidimensional Scale of Perceived Social Support (MSPSS)" and "Academic Self-Efficacy Scale" were among the questionnaires administered. Academic success was not linked to psychological well-being, according to the findings. As a result, the students' stress levels had no effect on their academic performance. Duncan-Williams however established that there was an association between academic stress and the level of psychological well-being of the students. Thus, as academic stress increased, students had poorer psychological well-being. In essence, the psychological well-being of students was affected by the stress they experienced.

### **Impact of Stress on the Health of Students**

Stress has also been researched as to how it affects the health of students. Msengi's (2007) study showed that the overall health behaviour of the students was good in spite of their experience of stress. Contrary to this, some studies have shown that the experience of stress at a high level lead to several health problems some which could have been prevented. For instance, after carrying out a review of some already existing studies, it was revealed that students with higher stress levels during periods of examination developed

several physical ailments mainly because of their lack of physical exercises (Stults-Kolehmainen & Sinha, 2014). Because of poor life choices and behaviours, stress can induce several diseases which are caused by being obese, low metabolic rate and decreased insulin sensitivity (Pervanidou & Chrousos, 2012). Stress has also been connected to a rise in body weight and an increase in appetite (Dallman et al., 1993; Stephens et al., 1995). These imply that academic stress could lead to health problems, such as chronic noncommunicable diseases mainly because of reduced physical activity and poor lifestyle choices.

Furthermore, Aafreen, Priya, and Gayathri (2018) performed an online survey on stress among students at several professional colleges, as well as its relationship to other academic, social, and health-related aspects. The study included an 80-student sample. An online survey was sent to the students. The data was graphed, inferentially and descriptively analyzed. The findings demonstrated that students in the scientific stream were more stressed than students in other streams, and that the stress had an impact on them cognitively, physically, and emotionally. Furthermore, students experienced anxiety and sadness, which negatively impacted their academic performance.

Students that are under a lot of academic stress have been seen to experience depression, anxiety, behavioural difficulties, impatience, and other concerns (Deb, Strodl & Sun, 2015; Verma, Sharma & Larson, 2002). Depression has been shown to be associated with lack of ability to focus, dread of failing, and a negative outlook on the future, among other things, and has been observed in stressed youth (Busari, 2012). Hill (2014) investigated the link between student stress and health in a similar way. A descriptive

survey of 38 college freshman in the Rocky Mountain area was conducted. Hill showed that experiencing low level of mental and emotional wellness has been linked to high level of stress experience. All of this implies that stress has an impact on students' health.

In their school-based longitudinal study on the “relationship between stress and quality of life of undergraduate pharmacy students in Ghana”, Opoku-Acheampong et al. (2017) discovered that level of stress was significantly related with social relationships, environmental health, physical health, and psychological health in a negative sense. This implies that stress affected the overall health of the undergraduate pharmacy students in Ghana.

### **Coping Mechanisms Adopted by Students to Mitigate their Experience of Stress**

Whenever students experience stress, they respond in different ways to the stressful experiences. Such responses are the coping mechanisms adopted by the students. This has been studied by several researchers. Hill (2014) wanted to know how school stress, coping, and academic achievement are intertwined. To do so, college freshman at a university in the Rocky Mountain area were invited to fill out a series of questionnaires. Stress and coping were shown to be positively and strongly associated. Aside from that, emotion management was linked to stress in a favorable and substantial way. Emotion-focused coping contributed approximately half of the variation in stress. These findings show that emotional reactions to stress may be the earliest means of dealing with stress among freshman students. It's possible that first-year students only know how to deal with stress emotionally. Freshmen therefore would need some social support and stress-management skills, such as

positive stress management techniques and a better understanding of school facilities, like counseling centers.

Sideris (2006) conducted study on “problem-focused” and “emotion-focused” coping approaches, as well as the results of combining the two. The research found that combining “problem-focused” and “emotion-focused” coping decreased stress levels more effectively than either of the approaches alone. Sheykhjan (2015) also found that health education programmes could be organized for students to help them deal with stress. Also, students would benefit from the skill of recognizing their stressors and how they can adapt in tiems of stress. Despite school counseling centers' efforts, it was proposed that outreach programmes be organized for all students on "techniques in controlling stress" and "time management" to go a long way toward preparing students with stress-coping abilities.

Shahmohammadia (2011) discovered that although students managed challenging situations in a matured manner, they mostly disengaged from the actual problems they had in life. Also, Msengi’s (2007) study discovered that interpersonal relationships and religious practices were the most effective stress coping strategies. Morales-Rodrguez and Pérez-Mármol (2019) investigated the “relationship between self-efficacy and anxiety, coping strategies, and emotional intelligence among Spanish university students”. A total of 258 students from three distinct academic disciplines were included in the study. It was revealed that a significant negative relationship existed between “self-efficacy” and “state and trait anxiety”. Aside this, a strong correlation between “self-efficacy” and “problem-solving”, “emotional expression”, “cognitive restructuring”, “social withdrawal”, “coping with a

situation” and “emotional intelligence”. Overall, it was found that students’ self-efficacy had a substantial impact on their coping techniques.

Gustems-Carnicer, Calderón, and Calderón-Garrido (2019) looked at stress in teacher education students. In all, 334 university students were involved in the study. It was found that “many students experienced stress and used avoidance coping strategies; students who were under less stress and engaged in less cognitive avoidance and more problem-focused coping made more academic achievement; and students who were under more stress performed worse”. However, with age, performance was not impacted by stress a lot. According to these findings, detecting and treating the detrimental effects of stress on well-being and academic outcomes in teacher-education students is crucial in order to evade long-term issues in personal and professional lives.

In their school-based longitudinal study, Opoku-Acheampong et al. (2017) discovered that while most students used positive coping mechanisms such as proper time management, others adopted negative mechanisms like overeating and alcohol/substance use. Also, in the study of Adom et al. (2019), it was found that formulating attainable academic targets, proper planning and scheduling, proper eating, sleeping and exercising patterns and relaxation techniques all found to be effective academic stress management strategies.

Several other studies from different countries have shown that students adopt varied coping approaches to mitigate their stressful experiences. According to studies from the United Kingdom (Ashton & Kamali, 1995; Guthrie et al., 1995), medical students utilize alcohol, cigarettes, and narcotics as frequent coping techniques. In a study in Pakistan, engaging in sporting



activities, listening to music, spending time with friends, napping, and spending time alone were all employed (Shaikh et al., 2004). Nepalese students employed active coping tactics (“positive reframing”, “planning”, “acceptance”, and “active coping”) instead of avoidant coping strategies (“denial”, “alcohol/drug use”, and “behavioural disengagement”) (Sreeramareddy et al., 2007).

Regularly exercising, engaging in prayer, counselling, watching comedic shows, meditating and listening to quiet music were all typical coping mechanisms used by Malaysian students in a qualitative research (Redhwan, Sami, Karim, Chan, & Zaleha, 2009).

#### **Demographic Characteristics (Gender and Age) and Stress**

Several demographic variables have been studied as to how they are related to the experience of stress among students. Gender and age are two among them. Dada, Babatunde, and Adeleye (2019) investigated the “sources of academic stress and coping techniques among undergraduate students in Nigerian public higher education institutions”. Data was gathered by a questionnaire. No statistically significant disparity existed in the perceptions of students about stress in terms of gender. In addition, there was no significant gender disparity in the coping techniques of the students.

The common sources of stress in students offering medicine were investigated by Kumar, Sharma, Gupta, Vaish, and Misra (2014). The study used a semi structured Performa and a stress scale to analyze 114 medical undergraduates for prevalent sources of stress and their degree of stress. Attendance, demographic parameters, average grades, and other variables were compared and associated with the outcomes. When opposed to males,

stress had a positive effect on females, according to the study. When compared to male medical students, female medical students had higher attendance and better day-to-day performance, which was associated with more stress.

Msengi's (2007) study also revealed that stress levels differed significantly by gender, with male students experiencing less stress on average than female students. Female students, however, were found to have high level of anxiousness compared to male students. Masi, Sbrana, Poli, Tomaiuolo, Favilla, and Marcheschi (2000) discovered gender differences in the depressive and anxiety levels, with females experiencing high level of depression and anxiety compared to males. According to these results, psychological well-being varied by gender. In a similar vein, Opoku-Acheampong et al. (2017) revealed that female students had greater stress ratings than male students. However, no noticeable difference was observed in stress levels across the various year groups, however.

Some studies already reported also covered the relationship between demographic characteristics and stress. Female fresh students, for example, exhibited considerably greater reported stress levels than their male counterparts, according to Amponsah and Owolabi (2011). There was also a substantial difference between new undergraduate students admitted two years after their high school graduation and those admitted later. Prior employment position and age, on the other hand, had no significant impact on reported stress levels.

Duncan-Williams (2015) found that gender had no impact on the connection between stress and psychological well-being, as previously documented. However, it was revealed that gender disparities existed in the

levels of psychological well-being of students. Antoniou, Polychroni, and Vlachakis (2006) carried out a cross-sectional study to investigate stress among teachers working in Greek primary and secondary schools (education version). Problems with student engagement, lack of motivation, poor achievement, and dealing students with "difficult" behavior were shown to be the most highly ranked sources of stress. Female teachers also had much greater levels of occupational stress than male instructors. In a similar vein, younger instructors were more likely to get burned out.

Chen, Peng, Xu, and O'Brien (2018) also looked at the varied sorts of stresses that individuals of various ages face, as well as their coping techniques. The study discovered that stress was experienced differently by people of different ages. According to Misra and Castillo's (2004) research, men and women have distinct views and responses to stress. Similarly, Jogaratnam and Buchanan (2004) identified significant gender differences among students in terms of the time pressure dimension of stress. Stress coping mechanisms have been shown to be influenced by demographic factors. For example, stress symptoms rise with lower social status (Kariv & Heiman, 2005), and females had the high likelihood than males to utilize emotional and avoidant coping mechanisms.

### **Chapter Summary**

This chapter dealt with the literature review of the study. It deals with the theoretical framework, the conceptual framework and the empirical review of the study. Specifically, the study dealt with the Transactional Theory of Stress and Coping, Ryff's Theory of Psychological Well-being and Yerkes-Dodson's Law. Also, concepts relating to stress, its effects and management

were reviewed. Empirical literature relating to the objectives of the study were reviewed. Overall, it was observed from the literature review that stress can negatively affect academic performance as well as the health of students.



## CHAPTER THREE

### RESEARCH METHODS

The aim of this study was to examine the perceived impact of stress on students' academic performance and health at Ghanaian Colleges of Education. The research methodologies used to perform the study are covered in this chapter and these are the research design, study area, population, sampling procedure, data collection instrument, data collection procedures, and data processing and analysis.

#### **Research Design**

Descriptive survey research design was employed in this study. The goal of descriptive research is “to observe, describe, and document a phenomenon as it occurs in the real world” (Ofori & Dampson, 2011, p. 31). The events or circumstances are already present or have occurred in descriptive research, and the researcher just picks the relevant variables for examination of their correlations. Saunders, Lewis and Thornhill (2009) added that the descriptive survey deals with accurate profiling of persons, events or situations. Also, the use of the descriptive survey enables the researcher to study the situation in order to explain and evaluate the relationships between variables. Based on this, the descriptive survey design was considered appropriate in finding out the influence of stress on the academic performance and health of students in Colleges of Education in Ghana.

There are various advantages to using a descriptive survey approach. To arrive at generalizations, for example, it employs both inductive and deductive reasoning approaches. It also frequently uses the randomization approach to estimate error when inferring population

features from sample data, and it defines variables and processes as fully and comprehensively as possible so that the study may be duplicated by other researchers (Amedahe, 2002).

Regardless of these advantages, the descriptive survey design has some disadvantages. For example, if stringent precautions are not taken, results may be distorted due to bias introduced into the research (Amedahe, 2002). Another problem of descriptive surveys is that before reliable conclusions can be formed, the data must be organized and presented consistently. If caution is not used, the research may not be able to draw appropriate conclusions from the data collected (Jacob, 2011). These disadvantages would not affect the current study because the researcher together with the supervisor ensured that the processes involved in the collection of data as well as drawing of conclusions are verified and without biases.

### **Study Area**

The research was conducted in Colleges of Education in Ghana. The study focused on three institutions of education in particular. St. Vincent College of Education in Yendi, Atebubu College of Education, and OLA College of Education in Cape Coast were the three colleges.

St. Vincent College of Education is located in Yendi (Northern Zone, Ghana). St Vincent College of Education, named after the first Bishop of the Catholic Diocese of Yendi, Most Rev. Vincent Sowah BOI-NAI, SVD was established on the 15th September, 2011. St. Vincent College of Education is affiliated to University for Development Studies.

Atebubu College of Education is a Teacher Training institution in Atebubu (Atebubu Amanten Municipal, Bono East Region, Ghana). The college lies in the Ashanti / Brong Ahafo Region of Ghana. It was established in October 1965 and was the region's main second-cycle institution as well as the only teacher-training college.

Our Lady of Apostles (OLA) College of Education, formerly known as OLA Training College, is Ghana's and Sub-Saharan Africa's leading women's college. The Missionary Sisters of Our Lady of Apostles founded it (a Catholic Missionary Order). OLA College follows a holistic education paradigm that focuses on building character, an entrepreneurial spirit, leadership potential, and spiritual growth while also teaching the full person. The University of Cape Coast is connected with the OLA College of Education.

### **Population**

The target population for this study was made up of students in public Colleges of Education in Ghana. The accessible population however comprised second year students in selected Colleges of Education. Three Colleges were selected at random from a list of colleges in the Northern Zone, Middle Zone and the Southern Zone. The Colleges were the St. Vincent College of Education in Yendi, Atebubu College of Education and OLA College of Education. The population of second year students in the Colleges comprised St. Vincent (175), Atebubu College (374) and OLA College (402). The total population from the three Colleges was 951. Therefore, the accessible population for the study was 951.

## Sample and Sampling Procedure

A sample is a carefully chosen subset of the research population, whereas sampling involves the procedure in choosing a part of the population to represent the main population (Amedahe, 2002). The study's sample size was calculated based on the expected student population. Gill, Johnson, and Clark's sample determination table was used to determine the study's sample size (2010). A sample size of 275 persons is recommended by Gill et al. for a population of 951 people.

The sampling technique that was adopted for this study was stratified random sampling. This procedure involves a classification of population into mutually exclusive groups, called strata, and using a random sample from each stratum (Scheaffer, Mendenhall III, & Ott, 2006). The stratified sampling has the advantage of improving efficiency of sampling since every group in the population was represented in the sample in proportion equal to the size of that segment within the main population. The randomization involved in this procedure also ensures that there are no biases in the selection and that each element in the population stands the same chance of being chosen. The stratification was done according to the colleges. Thus, the sample taken from each college was proportional to the population of the college. The calculation was based on this formula  $n = N \times \frac{S}{S}$

where:

$n$  = population of specific group

$N$  = Total population

$S$  = Sample Size

$s$  = sample for specific group (college).



For instance,

$$175/951 \times 275=51.$$

The sample distribution is shown in Table 1.

**Table 1- Sample Distribution**

College of Education	Population	Sample
St. Vincent College	175	51
Atebubu College	374	108
OLA College	402	116
<b>Total</b>	<b>951</b>	<b>275</b>

Source: Field Survey

#### **Data Collection Instrument**

A questionnaire was utilised in the collection of the data. The questionnaire was adapted from the “Student-Life Stress Inventory (SLSI)”, the “Agricultural Coping Systems Inventory (ACSI)”, and “Duncan-Williams’ (2015) Scale on Impact of Stress”.

#### ***Student-Life Stress Inventory (SLSI)***

Gadzella (1994) created the “Student-Life Stress Inventory (SLSI)” to assess academic stress. It consists of a 51-item questionnaire divided into two portions. The first segment contains twenty-three (23) stress-related elements under five sub-scales. These are “frustrations (7 items), disputes (3 items), pressures (4 items), changes (3 items), and self-imposition (6 items)”. Only the first portion, which measures stress, was modified for this study. The second component, which has twenty-eight (28) items, assesses stress reactions on four sub-scales “(physiological, emotional, behavioural, and cognitive appraisal)”. Each item was scored on a 5-point, Likert-type scale, with 1

denoting never, 2 denoting seldom, 3 denoting sometimes, 4 denoting frequently, and 5 denoting most of the time. Higher scores indicate higher stress levels, whereas lower scores indicate lower stress levels.

Gadzella (1994) reported a Cronbach's alpha of .76 as the total reliability for the SLSI. Gadzella also indicated that construct validity and content validity were established for the inventory. Thus, Gadzella concluded that the instrument was valid and reliable to be used to assess stress levels of students.

### ***Agricultural Coping Systems Inventory (ACSI)***

The ACSI "(Agricultural Coping Systems Inventory)" was used to assess coping in this study. Utsey, Adams, and Bolden (2000) created the "Agricultural Coping Systems Inventory" (ACSI). It was created to assess coping from the perspective of African-Americans. It's a 30-item self-report that deals with persons of African descent's culture-specific coping behaviours. It is scored on a 4-point, Likert-type scale with 0 indicating that it does not apply or was not used, 1 indicating that it was used a little, 2 indicating that it was used a lot, and 3 indicating that it was used a lot. "Cognitive Emotional Debriefing" (11 items), "Spiritual-Centered (SC)" (8 items), "Collective Coping" (8 items), and "Ritual-Centered Coping" (3 items) are the four subscales of the ACSI.

According to Utsey et al. (2000), with regard to the psychometric properties of the ACSI, the four subscales demonstrated adequate internal consistency reliability (Cronbach's alpha ranged from .71 to .80). The developers of the ACSI, Utsey et al. also established content and construct validity of the instrument.

### *Duncan-Williams' (2015) Scale on Impact of Stress*

The impact of stress on academic performance and health was assessed using a modified version of the Duncan-Williams' (2015) Scale on Impact of Stress. The scale was made up of 36 items which was on a 7-point Likert-type scale from 1 (Very Untrue) to 7 (Very True). The reliability reported was Cronbach alpha coefficient of 0.81. Content and construct validity were also established by the developer. The items were modified from 36 items to 16 items for the current study.

#### *Final questionnaire*

In using the three scales, they were put together and modified as one questionnaire. The questionnaire was divided into six pieces. The first component inquired about the respondents' demographic backgrounds, while the next five sections inquired about the study's research topics. Section B requested information on the level of stress experienced by students, section C requested information on the causes of stress, section D requested information on the impact of stress on students' academic performance, and section E requested information on the impact of stress on students' health. The final section (F) covered the coping mechanisms adopted by students to mitigate their stressful experiences.

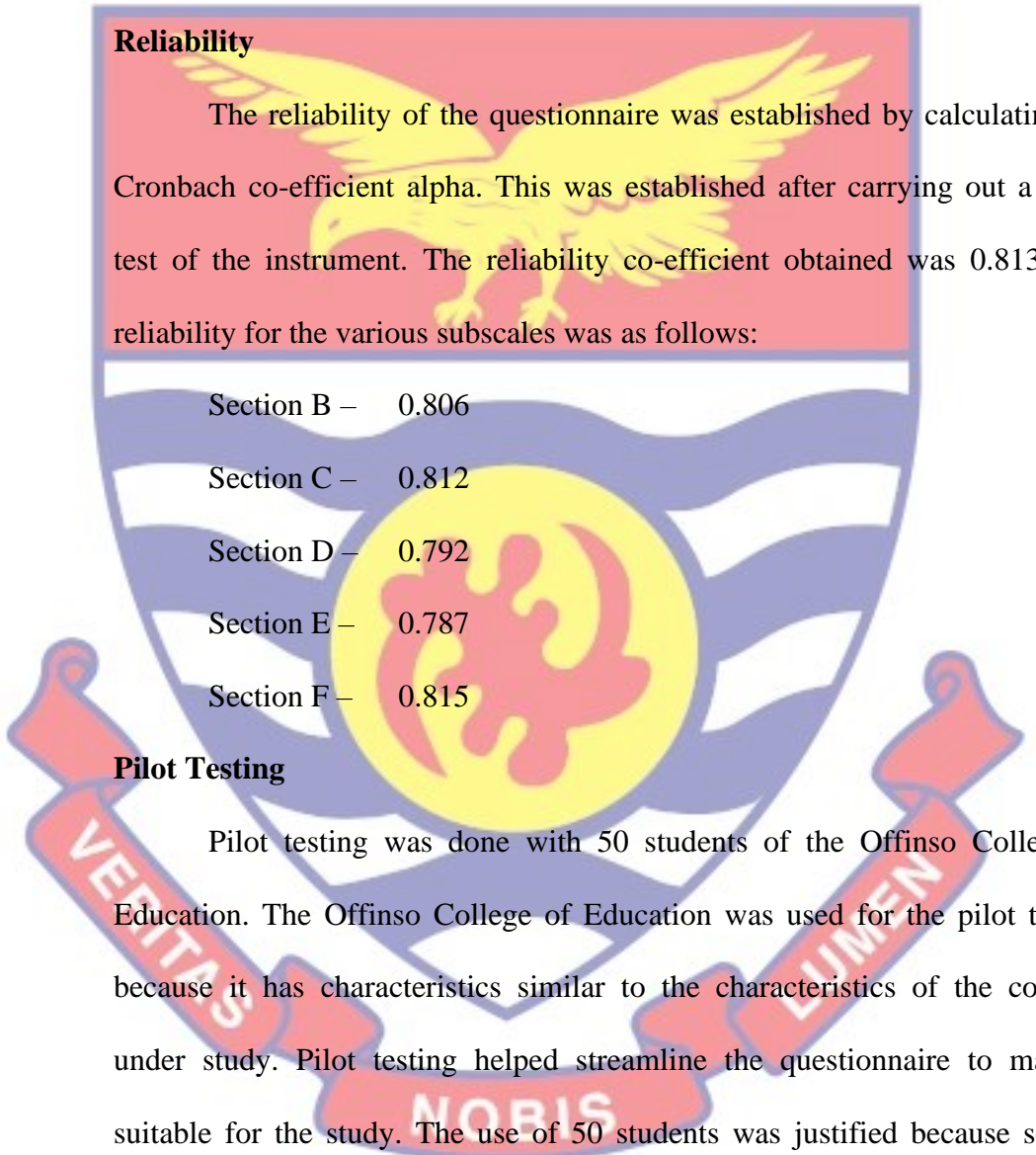
Section B was on a scale comprising: "1 = never", "2 = seldom", "3 = occasionally", "4 = often", and "5 = most of the time". Sections C to E were on a scale comprising: "1=Strongly Disagree", "2=Disagree", "3=Agree", and "4=Strongly Agree". The final section (F) was on a scale of: "0 = does not apply or did not use", "1 = used a little", "2 = used a lot", and "3 = used a great deal".

## Validity

The validity of the questionnaires was established by my supervisor who is an expert in guidance and counselling and research. The content validity indicates the degree to which the content of an instrument measures its intended purpose and this was verified by my supervisor.

## Reliability

The reliability of the questionnaire was established by calculating the Cronbach co-efficient alpha. This was established after carrying out a pilot-test of the instrument. The reliability co-efficient obtained was 0.813. The reliability for the various subscales was as follows:



Section B –	0.806
Section C –	0.812
Section D –	0.792
Section E –	0.787
Section F –	0.815

## Pilot Testing

Pilot testing was done with 50 students of the Offinso College of Education. The Offinso College of Education was used for the pilot testing because it has characteristics similar to the characteristics of the colleges under study. Pilot testing helped streamline the questionnaire to make it suitable for the study. The use of 50 students was justified because several researchers have proposed that 10% or more of a proposed sample size can be used for pilot study (Connelly, 2008; Hertzog, 2008; Isaac & Michael, 1995). Since the sample for the study was 275, 50 students represented more than 10% of the study sample size.

## Data Collection Procedures

An introduction letter from the Department of Guidance and Counselling was sent to the various Colleges of Education in order to collect data from the chosen colleges. This aided in obtaining authorization from the colleges to gather the data. The data was collected during a four-week period.

Before conducting the survey, the respondents were asked for their permission. The study's goal was explained to them, and they were given the chance to ask questions and seek explanations. The responders were then given the option of participating or not participating in the survey. The completed copies of the surveys were obtained from the respondents once they had finished the questions. To boost the return rate, respondents were not permitted to take the surveys home with them.

## Ethical Considerations

In the first place, the researcher obtained ethical clearance from the College of Education Review Board in the University of Cape Coast. The researcher also gave consideration to several ethical issues such as anonymity, autonomy, confidentiality and avoidance of plagiarism. In ensuring anonymity, the identities of the respondents were not known. This is why the names of the respondents were not required on the questionnaire. Regarding, autonomy, the consent of the respondents was sought and so participation in the study was made voluntary.

Further, in ensuring confidentiality and privacy, the data obtained from the respondents were kept securely and the results of the study served the academic purpose for which the study is intended to serve. Effort was made to ensure that there is no plagiarism in the final report of the study.

## Data Processing and Analysis

Following the collection of data, it was thoroughly scrutinized for inconsistencies in the responses. The data was coded and entered into the Statistical Product and Service Solution (SPSS) software version 21. The data was analysed using descriptive statistics such as frequencies and percentages, and means and standard deviations. Frequencies and percentages were used to study demographic characteristics, whereas means and standard deviations were used to assess data for research questions 1 to 5. Hypothesis one was tested using an Independent Samples t-test, whereas hypothesis two was tested using a One-Way ANOVA. Tables were used to show the findings, which were described in connection to the study's research themes.

## Chapter Summary

The approach used to conduct the study was discussed in this chapter. The study used a descriptive survey research approach. A stratified sample of 275 students from St. Vincent College of Education, Atebubu College of Education, and OLA College of Education was chosen. A questionnaire adapted from the “Student-Life Stress Inventory”, the “Africultural Coping Systems Inventory (ACSI)”, and “Duncan-Williams' (2015) Scale on Stress Impact” was used to collect data. All the scales were modified and put together as a single questionnaire. The modifications made are indicated under each of the scales in the data collection instrument section. Descriptive and inferential statistics were used to analyze the data.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

The purpose of this study was to explore the perceived impact of stress on the academic performance and health of students in Colleges of Education in Ghana. This chapter presents the results and discussion of the study.

#### Demographic Characteristics

The demographic data of the respondents are shown in this part of the study. The gender, age and colleges of the respondents are shown in Table 2.

**Table 2- Demographic Data of Respondents**

Item	Frequency (F)	Percentage (%)
<b>Gender</b>		
Male	155	56.4
Female	120	43.6
<b>Age</b>		
20 years and below	57	20.7
21-25 years	140	50.9
Above 25 years	78	28.4
<b>College</b>		
St. Vincent	51	18.5
Atebubu	108	39.3
OLA	116	42.2

Source: Field survey (2021)

It was shown in Table 2 that more than half of the respondents (155, 56.4%) were males while 120(43.6%) were females. Generally, there are more male students than female students in Colleges of Education. In terms of age, it was shown in Table 2 that most of the respondents (140, 50.9%) were aged between 21 to 25 years. Also, 28.4% of the respondents were above 25 years of age while 20.7% of the respondents were 20 years and below. In Ghana,

most College of Education students are within the ages of 21 to 25 years. From the data, it can be seen that the sample in the study accurately represents the students in College of Education. Finally, in terms of the colleges, 116(42.2%) of the respondents were from OLA College of Education, 108(39.3%) were from Atebubu College of Education and 51(18.5%) were from St. Vincent College of Education.

The demographic data (gender and age) of the respondents are relevant in the study because stress levels and how they affect health and academic performance can differ on the basis of gender and age. Thus, people of different gender and age could have different stress experiences and as such the data is relevant in this study.

### **Answers to Research Questions**

**Research Question 1:** What is the level of stress experienced by students in Colleges of Education in Ghana?

This research question sought to find the level of stress experienced by the students. The data were analysed using mean and standard deviation. The five-point, Likert-type scale was scored as: “1 = never, 2 = seldom, 3 = occasionally, 4 = often, and 5 = most of the time”. Based on this, mean scores above 3.0 were deemed to be high, meaning that the respondents often had that stress experience. Mean scores between 2.0 and 3.0 implies that respondents had medium levels of stress, meaning that they sometimes had that stress experience while mean scores below 2.0 implies that respondents had low levels of stress, meaning that they rarely had that stress experience. The results are presented in Table 3.



**Table 3- Level of Stress Experienced by Students**

Statement	Mean	Std. Dev.	Stress Level
<b>I have experienced:</b>			
frustration caused by delay in achieving goals	2.39	1.20	Medium
daily stresses or difficulties	2.41	1.24	Medium
lack of resources (financial & material)	3.03	1.48	High
failure in achieving targets.	2.32	1.27	Medium
lack of social acceptance	1.92	1.19	Low
relationship struggles	2.29	1.52	Medium
opportunity denials in spite of my qualifications.	1.90	1.10	Low
<b>Mean of Means</b>	<b>2.32</b>		<b>Medium</b>
<b>I have experienced conflicts which were caused:</b>			
by having to choose from desired options.	2.28	1.32	Medium
by having undesired options.	2.15	1.19	Medium
by a goal which had both positive and negative options.	2.48	1.35	Medium
<b>Mean of Means</b>	<b>2.30</b>		<b>Medium</b>
<b>I experienced pressures:</b>			
due to competitive tasks (scores and relationships).	2.72	1.58	Medium
due to task closing dates (e.g. paper due).	2.85	1.46	Medium
due to too much work needed to be done.	2.93	1.42	Medium
due to relationships with other people.	2.89	1.49	Medium
<b>Mean of Means</b>	<b>2.85</b>		<b>Medium</b>
<b>I have experienced (changes):</b>			
quick undesirable changes.	2.48	1.22	Medium
several changes at the same period.	2.89	1.43	Medium
change which interrupted and upset my life and plans.	2.83	1.42	Medium
<b>Mean of Means</b>	<b>2.73</b>		<b>Medium</b>
<b>As a person (self-imposed)</b>			
I prefer to be competitive	3.17	1.73	High
I prefer to be seen and loved by everyone	3.41	1.54	High
I always worry about a lot of things and people	3.20	1.61	High
I like to delay and postpone things that need to be done	2.47	1.39	Medium
I feel I should get perfect solutions to issues	3.24	1.60	High
I have worries and anxiety about examination	2.83	1.60	Medium
<b>Mean of Means</b>	<b>3.05</b>		<b>High</b>

Source: Field survey (2021)

As shown in Table 3, the respondents experienced self-imposed stress often because they liked to be noticed and be loved by all (M=3.41, SD=1.54), felt they must find a perfect solution to problems (M=3.24, SD=1.60), worried

a lot about everything and everybody ( $M=3.20$ ,  $SD=1.61$ ) and had a tendency to procrastinate ( $M=3.17$ ,  $SD=1.73$ ). Since these mean scores were all above 3.0, it can be said that the respondents had high levels of stress relating to these issues. This means they often had stresses relating to these issues.

Further it is shown in Table 3 that the respondents had often experienced lack of resources (money for books, etc.) ( $M=3.03$ ,  $SD=1.48$ ). The stress level was high in this case.

Moreover, the respondents sometimes experienced medium level of stress due to several changes occurring during the same period ( $M=2.89$ ,  $SD=1.43$ ) and worrying and getting anxious about taking texts ( $M=2.83$ ,  $SD=1.42$ ). Aside these, the respondents indicated that they sometimes had pressures due to overload ( $M=2.93$ ,  $SD=1.42$ ), interpersonal relationships ( $M=2.89$ ,  $SD=1.49$ ) and deadlines of academic work ( $M=2.85$ ,  $SD=1.46$ ). All of these indicated medium level of stress.

Referring to the results in Table 3, it could be realized that the respondents had high levels of stress in as depicted by their desire to being loved by everyone, finding perfect solution to problems, worrying a lot and procrastinating a lot. The respondents however had medium levels of stress as shown in their lack of resources, dealing with too many changes, worrying about taking texts, huge overload, interpersonal issues and academic work issues.

**Research Question 2:** What are the major causes of stress experienced by students in Colleges of Education in Ghana?

This research question aimed to find the major causes of stress experienced by the respondents. The data were scored on a four-point, Likert-

type scale of: “1=Strongly Disagree, 2=Disagree, 3=Agree and 4=Strongly Agree”. The data were analysed using mean and standard deviation. Based on the scoring, it is categorized that mean scores above 2.5 are considered major causes of stress and those below 2.5 are considered minor causes of stress. The implication is that statements with mean scores above 2.5 were seen by the respondents as major causes of the stress they experience while statements with mean scores below 2.5 were seen by the respondents as minor causes of stress. The results are shown in Table 4.

**Table 4- Major Causes of Stress among Students**

Statement	Mean	Std. Dev.	Description of Cause
<b>Academic-Related</b>			
High academic workload	3.49	1.27	Major
Dissatisfaction with lectures/face-to-face	2.84	1.11	Major
High frequency of examinations	2.93	0.99	Major
Poor performance in examinations	3.24	1.17	Major
Lack of learning materials/resources	3.41	1.08	Major
Difficulty reading and understanding modules	3.11	1.19	Major
<b>Mean of Means</b>	<b>3.17</b>		<b>Major</b>
<b>Psychosocial</b>			
Inability to manage time	3.03	1.06	Major
Inability to concentrate during lecture	3.12	1.18	Major
Anxiety about performance in exams	3.17	1.08	Major
High parental expectations	2.64	1.09	Major
Worries about future	3.03	1.06	Major
Loneliness	2.87	1.16	Major
Financial problems	3.41	1.24	Major
Family/marriage problems	2.56	1.19	Major
Difficulty relating to members of the opposite sex	2.08	0.94	Minor
Lack of time for relaxation	3.01	1.14	Major
<b>Mean of Means</b>	<b>2.89</b>		<b>Major</b>
<b>Health-related</b>			
Lack of healthy diet/irregular eating habit	2.28	1.15	Minor
Sleep problems	2.40	1.16	Minor
Illness/ health problems	2.93	1.09	Major
Problems with lectures during face-to-face	2.19	1.11	Minor
<b>Mean of Means</b>	<b>2.45</b>		<b>Minor</b>

Source: Field survey (2021)

From Table 4, it could be seen that the major causes of stress under academic-related stress included high academic workload (M=3.49, SD=1.27), lack of learning materials/resources (M=3.41, SD=1.08), poor performance in examinations (M=3.24, SD=1.17) and difficulty reading and understanding modules (M=3.11, SD=1.19). Under, psychosocial stress, the major causes included financial problems (M=3.41, SD=1.24), anxiety about performance in exams (M=3.17, SD=1.08), worries about future (M=3.03, SD=1.06), inability to manage time (M=3.03, SD=1.06) and lack of time for relaxation (M=3.01, SD=1.14). The health-related causes were not considered by the respondents to be very significant as they all had mean scores below 3.0.

**Research Question 3:** What is the perceived impact of stress on the academic performance of students in Colleges of Education in Ghana?

This research question targeted finding out the perceived impact of stress on the academic performance of students. The data were scored on a four-point, Likert-type scale of: “1=Strongly Disagree, 2=Disagree, 3=Agree and 4=Strongly Agree”. The data were analysed using mean and standard deviation. Based on the scoring, mean scores above 2.5 show big impact and those below 2.5 show small impact. The results are shown in Table 5.

**Table 5- Impact of Stress on Academic Performance**

Statement	Mean	Std. Dev.	Type of Impact
Stress decreases concentration to study	3.15	1.09	Big
Stress decreases level of confidence in academic	2.12	1.12	Small
Stress increases the likelihood of making mistakes during examinations	3.12	1.13	Big
Stress affects decision making ability during studies	2.27	1.20	Small
Stress makes you too tired to study	3.22	1.05	Big
Stress reduces retentive ability	3.15	1.01	Big
Stress decreases ability to remember what is studied	3.19	1.13	Big
Stress reduces the desire to study	3.01	1.19	Big
<b>Mean of Means</b>	<b>2.90</b>		<b>Big</b>

Source: Field survey (2021)

From Table 5, it can be seen that stress can impact on academic performance in the sense that it makes you too tired to study (M=3.22, SD=1.05), decreases ability to remember what has been studied (M=3.19, SD=1.13) and reduces retentive ability (M=3.15, SD=1.01). Also, stress decreases concentration to study (M=3.15, SD=1.09), increases the likelihood of making mistakes during examinations (M=3.12, SD=1.13) and reduces the desire to study (M=3.01, SD=1.19). all of these indicated that stress had big impacts on academic performance. This is because the mean scores were above 2.5. The mean of means score was also above 2.5 and thus indicated that stress had big impact on academic performance.

**Research Question 4:** What is the impact of stress on the health of students in Colleges of Education in Ghana?

This research question was meant to find out the impact of stress on the health of students. The data were analysed using mean and standard deviation. Based on the scoring, it is demarcated that mean scores above 2.5 show big impact and those below 2.5 show small impact. The results are shown in Table 6.

**Table 6- Impact of Stress on Health**

Statement	Mean	Std. Dev.	Type of Impact
Stress decreases sleep quality	3.16	1.08	Big
Stress decreases energy and causes constant fatigue	3.34	1.18	Big
Stress causes headaches and body aches	3.06	1.09	Big
Stress make you irritable and angry	2.95	0.93	Big
Stress can cause heart conditions	2.77	1.11	Big
Stress makes you emotionally withdrawn	2.85	1.09	Big
Stress can lead to constant anxiety	3.09	1.07	Big
Stress can lead to depression	3.06	1.19	Big
<b>Mean of Means</b>	<b>3.04</b>	<b>1.09</b>	<b>Big</b>

Source: Field survey (2021)

Table 6 shows clearly that the major ways that stress impacts health included decreasing energy level and causing constant fatigue (M=3.34, SD=1.18), decreasing sleep quality (M=3.16, SD=1.08), and leading to constant anxiety (M=3.09, SD=1.07). Also, stress causes headaches and body aches (M=3.06, SD=1.09) and leads to depression (M=3.06, SD=1.07). all of the mean scores indicated that stress had great or big impact on the health of students.

**Research Question 5:** What are the coping mechanisms adopted by students in Colleges of Education in Ghana to mitigate their experience of stress?

This research question sought to highlight the coping mechanisms adopted by students to mitigate the experience of stress. The data were scored using the scale: “0 = does not apply or did not use, 1 = used a little, 2 = used a lot and 3 = used a great deal”. The developers of the Africultural Coping Scale adapted for this section were of the view that “used a great deal” was higher than “used a lot”. Mean scores above 2.0 were implied that the coping mechanism was mostly used while those below 2.0 implied that the coping mechanism was rarely used. The results are shown in Tables 7 to 10.

**Table 7- Spiritual-Centered (SC) Coping**

Statement	Mean	Std. Dev.
Praying for things to be solved on their own	2.33	1.15
Attending religious gatherings for help	2.14	0.89
Reading from the Bible or other religious book	2.21	0.97
Asking some other to pray for me	2.29	1.02
Reading from a devotional or meditation book	2.01	1.13
Asking for blessings from someone who is spiritual or religious	2.45	0.99
Singing to help minimise the stress	2.35	1.11
Leaving matters in the hands of God	2.48	1.02
<b>Mean of Means</b>	<b>2.28</b>	

Source: Field survey (2021)

It could be seen in Table 7 that the respondents left matters in the hands of God (M=2.48, SD=1.02), asked for blessings from a spiritual individual (M=2.45, SD=0.99) and sung to themselves to help minimize stress (M=2.35, SD=1.11). Also, the respondents prayed that things would be resolved (M=2.33, SD=1.15), asked someone to pray for them (M=2.29, SD=1.02) and read from the Bible or other spiritual book for comfort and guidance (M=2.21, SD=0.97). These were the major spiritual centered coping mechanisms of the respondents.

The cognitive emotional debriefing coping mechanisms are shown in Table 8.

**Table 8- Cognitive Emotional Debriefing Coping**

Statement	Mean	Std. Dev.
Tried to forget about the issue	2.33	1.02
I engaged in other activities to be busy	2.25	1.04
Tried convincing myself that the issue was not too bad	2.13	0.98
Spent more time than usual doing group activities	1.98	1.01
Hoped that things would get better with time	2.30	1.03
Spent time engaging in activities with friends and family	1.97	0.78
Tried removing myself from the issue	2.11	0.99
Looked for people who could make me laugh	2.08	0.87
Dressed up nicely in my best outfit	1.78	1.01
Attended a social event to minimise stress	1.99	0.99
Watched a lot of comedy shows on TV	2.05	1.12
<b>Mean of Means</b>	<b>2.09</b>	<b>0.98</b>

Source: Field survey (2021)

From Table 8, it could be seen that the major coping mechanisms under Cognitive Emotional Debriefing Coping included trying to forget about the situation (M=2.33, SD=1.02), hoped that situation would get better with time (M=2.30, SD=1.03) and found other things to keep busy (M=2.25,

SD=1.04). Also, it was shown that the respondents tried to convince themselves that the situation was not that bad (M=2.13, SD=0.98) and tried to ‘remove’ themselves from the situation.

The collective coping mechanisms are presented in Table 9.

**Table 9- Collective Coping**

Statement	Mean	Std. Dev.
Obtained help from a group of family or friends	2.08	1.02
Remembered an advice from a parent or relative about the situation	2.03	1.11
Shared my feelings with other people	2.01	0.97
Thought of the struggles of Black people and gained strength from that	1.65	0.99
Sought advice from elderly people about dealing with the situation	2.17	1.02
Asked for ideas about dealing with the situation	2.19	1.05
Helped other peoples with their own issues	2.05	1.11
Sought emotional support from family and friends	2.11	1.07
<b>Mean of Means</b>	<b>2.04</b>	<b>1.04</b>

Source: Field survey (2021)

It could be seen in Table 9 that the respondents asked for ideas from other people in solving their problems (M=2.19, SD=1.05) and sought advice from elderly people in their family or community in dealing with the issue (M=2.17, SD=1.02). Also, the respondents sought emotional support from family and friends (M=2.11, SD=1.07) and got help from a group of family or friends (M=2.08, SD=1.02). These were the major collective coping mechanisms of the respondents.

The ritual centered coping mechanisms are presented in Table 10.



**Table 10- Ritual-Centered Coping**

<b>Statement</b>	<b>Mean</b>	<b>Std. Dev.</b>
Lit a candle for strength or guidance	0.78	0.76
Burned incense for strength or guidance	0.81	0.75
Used a cross or other object for its special powers in dealing with the problem	1.56	0.78
<b>Mean of Means</b>	<b>1.05</b>	<b>0.76</b>

Source: Field survey (2021)

From Table 10, it could be seen that the mean scores of all the three items were below 2.0. This means that these coping mechanisms were rarely used as indicated by the scoring of the scale.

The average of the means of the various sub-scales clearly confirms that ritual-centered coping mechanisms were rarely used (M=1.05). Specifically, Spiritual-Centered (SC) Coping mechanisms (M=2.28) were mostly used. This was followed by Cognitive Emotional Debriefing Coping mechanisms (M=2.09) and Collective Coping mechanisms (M=2.04).

### **Testing of Hypotheses**

#### **Hypothesis One**

H<sub>0</sub>1: There is no significant gender difference in the experience of stress among students in the Colleges of Education in Ghana.

H<sub>1</sub>1: There is a significant gender difference in the experience of stress among students in the Colleges of Education in Ghana.

This hypothesis sought to find out the significant difference in the experience of stress of male and female students in Colleges of Education in Ghana. The independent samples t-test was used in analysing the data at 0.05 level of significance. The results are shown in Tables 11 and 12.

The Levene’s test for homogeneity of variance was first done to test the homogeneity of variances. The results are presented in Table 11.

**Table 11- Levene’s Test for Equality of Variances**

	<b>F</b>	<b>Sig</b>
Equal variances assumed	2.315	.129
Equal variances not assumed		

Source: Field Survey (2021)

From Table 11, it can be seen that the significant value of .129 is greater than .05 the significant level. This implies that equal variances can be assumed.

**Table 12- Results of t-Test Comparing Stress of Male and Female Students**

<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Df</b>	<b>t-value</b>	<b>Sig (2-tailed)</b>
Male	155	60.05	17.18	273	-1.210	.227
Female	120	62.46	15.35			

Source: Field survey (2021)

It is shown in Table 12 that there is no significant difference between male and female college students in terms of their experience of stress [ $t(273) = -1.210, p > .05$ ]. The mean score of the males was 60.05 while that of females was 62.46. Based on the results in Table 12, the null hypothesis that there is no statistically significant difference in the stress experience of male and female students was retained. This implies that even though the female students had higher mean scores than male students, the disparity was not statistically significant.

## Hypothesis Two

H<sub>02</sub>: There is no significant difference in the experience of stress among students in Colleges of Education in Ghana on the basis of age.

H<sub>12</sub>: There is a significant difference in the experience of stress among students in Colleges of Education in Ghana on the basis of age.

This hypothesis aimed to find out the significant difference in the experience of stress of students in Colleges of Education in Ghana on the basis of age. The hypothesis was tested using One-Way ANOVA at 0.05 level of significance. This is because there were three age groups which were being compared.

In using One-Way ANOVA, there is the need to assess the homogeneity of variance among the groups. The results of the Levene's test for homogeneity are shown in Table 13.

**Table 13- Test of Homogeneity of Variances**

Levene Statistic	df1	df2	Sig.
11.451	2	272	.100

Source: Field Survey (2021)

It is shown in Table 13 that the significant level of .100 is greater than .05. This implies that homogeneity of variances can be assumed. Therefore, it was appropriate to carry out One-Way ANOVA.

The outcomes of the ANOVA test are shown in Tables 14, 15 and 16.

**Table 14- Descriptive Results for Different Age Groups**

Age in years	N	Mean	Std. Dev.
20 years and below	57	70.21	17.80
21-25	140	59.96	16.91
Above 25	78	56.49	11.29
<b>Total</b>	<b>275</b>	<b>61.09</b>	<b>16.42</b>

Source: Field Survey (2021)

Table 14 shows the mean and standard deviations of the various age groups. It can be seen that students within the 20 years and below age group had a mean score of 70.21 and standard deviation of 17.80. The students in the 21 to 25 years group had a mean score of 59.96 and a standard deviation of 16.91. The last group (Above 25 years) had a mean score of 56.49 and a standard deviation of 11.29. From the mean scores, it is clear that there are differences among the age groups. Specifically, it is clear that students in the year group of 20 years and below experienced more stress than students in the other age groups.

The results of the ANOVA test to reveal the significance of the difference observed among the groups are presented in Table 15.

**Table 15- ANOVA Results Comparing Stress Levels on the Basis of Age Groups**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6573.645	2	3286.823	13.283*	.000
Within Groups	67306.704	272	247.451		
<b>Total</b>	<b>73880.349</b>	<b>274</b>			

Source: Field survey (2021)

\*Significant,  $p < .05$

From Table 15, it is clear that there is a significant difference in the stress experience of students on the basis of their age groups [F (2, 272) = 13.283, p<.05]. The significant value (p-value) of 0.000 is less than the .05 alpha level. This implies that the difference in the mean scores of the three different age groups was statistically significant. The null hypothesis that there was no statistically significant difference in the experience of stress among students on the basis of their age groups was rejected.

Since a significant difference was found, there was the need for a post-hoc analysis in order to determine which of the three mean values caused the significant difference obtained in the ANOVA results. Tukey’s Post-Hoc test was used in doing the post-hoc analysis. The purpose of Tukey’s test is to figure out which groups differ in the sample. The results of the post-hoc analysis are shown in Table 16.

**Table 16- Tukey HSD Multiple Comparisons**

<b>Dependent Variable: Stress Levels</b>							<b>95% Confidence Interval</b>	
<b>(I) AGE</b>	<b>(J) AGE</b>	<b>Mean Difference (I-J)</b>	<b>Std. Error</b>	<b>Sig.</b>	<b>Lower Bound</b>	<b>Upper Bound</b>		
20yrs and below	21-25 years	10.25338*	2.47159	.000	4.4288	16.0780		
	Above 25 years	13.72335*	2.74111	.000	7.2636	20.1831		
21-25 years	20yrs and below	-10.25338*	2.47159	.000	-16.0780	-4.4288		
	Above 25 years	3.46996	2.22260	.264	-1.7679	8.7078		
Above 25 years	20yrs and below	-13.72335*	2.74111	.000	-20.1831	-7.2636		
	21-25 years	-3.46996	2.22260	.264	-8.7078	1.7679		

\*. The mean difference is significant at the 0.05 level.

Source: Field survey (2021)

It is shown in Table 16 that there was a significant difference in the mean scores of the students in the 20 years and below group and the students in the 21 to 25 years group ( $p=.000$ ). Also, there was a significant difference in the mean scores of the students in the 20 years and below group and the students in the above 25 years group ( $p=.000$ ). The implication is that students who were aged 20 years and below had mean scores which varied from the other groups. However, the difference in the mean scores of the students in the 21 to 25 years group and those in the above 25 years group was not significant.

The means for the various groups in comparison are shown in Table 17.

**Table 17- Tukey Comparisons for Means**

<b>Dependent Variable: Stress Levels</b>				
	Age	N	<b>Subset for alpha = 0.05</b>	
			1	2
Tukey HSD <sup>a,b</sup>	Above 25 years	78	56.4872	
	21-25 years	140	59.9571	
	20yrs and below	57		70.2105
	Sig.		.345	1.000

a. Uses Harmonic Mean Sample Size = 79.985.

Source: Field survey (2021)

The mean scores of the various age groups are shown in Table 17. It could be seen that the students in the 20 years and below group had mean score of 70.21 which differed significantly from the mean scores of the other age groups. From the results, it is clear that students who are 20 years and below had high levels of stress compared to those aged 21 to 25 years and 25 years and above.

## Discussion

### Level of Stress Experienced by Students

The study revealed that the respondents often experienced stress as depicted by their desire to being loved by everyone, finding perfect solution to problems, worrying a lot and procrastinating a lot. The respondents also sometimes experienced stress as shown in their lack of resources, dealing with too many changes, worrying about taking texts, huge overload, interpersonal issues and academic work issues. For students in Colleges of Education, the difficulty in managing the academic system and the personal-social creates a lot of stress.

The findings revealed that the respondents were subjected to considerable stresses. The findings are consistent with those of Elias, Ping, and Abdullah (2011), who revealed that undergraduate students were stressed to a moderate degree. Medical students were the most stressed out of all the pupils. The majority of stressors were related to students' academic work. Pierceall and Keim (2007) looked studied how much stress college students in Southern Illinois felt and found that the majority of them were under moderate stress. Most kids, according to Pierceall and Keim, are stressed.

Hudd et al. (2000) studied the connection between stress and health among students and revealed that during the course of their studies students experienced stress in relation to worrying and too much workload. This was confirmed in the current study. Affum-Osei, Asante and Forkuoh (2014) revealed that most of the students had moderate stress levels in the sense that they worried a lot about their personal problems, seeking solutions and

friendships and having general difficulties. These findings were confirmed in the current study.

Further, Budu (2014) investigated the “perceived level of stress and sources of stress in undergraduate and diploma nursing students” and found that students experienced daily hassles in dealing with the numerous challenges of college life. In a similar vein, Amponsah and Owolabi (2011) looked at the “stress levels of freshmen undergraduate students at the University of Cape Coast” and discovered that stress was frequent among them due to a lack of resources, adjusting to a new environment, and academic problems. In addition, Adom, Essel and Chukwuere (2019) examined the experience of academic stress among students and faculty in Ghanaian higher institutions and revealed that “lack of planning of work schedule, procrastination, setting unrealistic academic goals, as well as sleeping and exercise habits” were indications of stress. The similarities among all the findings indicate that stress is common among students in different settings.

The Transactional Theory of Stress and Coping was propounded by Lazarus (Lazarus, 1966) is relevant in this context because it explains the fact that how each student evaluates and appraises a particular situation will determine whether the individual will feel stressed or adapted to the college environment. The way the students evaluate their workload, their academic issues and their general worries will determine their stress experiences. It can thus be said that the respondents evaluated their experiences as being beyond what they can easily deal with.



## Major Causes of Stress Experienced by Students

The study revealed that the major causes of stress under academic-related stress included high academic workload, lack of learning materials/resources, poor performance in examinations and difficulty reading and understanding modules. Under, psychosocial stress, the major causes included financial problems, anxiety about performance in examinations, worries about future, inability to manage time and lack of time for relaxation.

When students have a lot of academic workload, they may feel frustrated particularly when they see that they do not have enough time to cope with all the workload. This can generate a lot of stress. Also, difficulty in studies and lack of required learning materials can make students feel a lot of stress within the school environment. The experience of stress is even worse when students perform poorly in examinations.

Aside these academic-related causes of stress, students may be stressed when they have worries and anxieties about performance in examinations. Some students experience stress mostly due to their poor financial standing. Sometimes, students may feel the need of more time to manage their issues and relax. All of these can create situations of stress for students in Colleges of Education.

Personal feelings of insufficiency, fear of failing, interpersonal issues with instructors and colleagues, and poor study facilities are among the drivers of stress, according to Reddy, Menon, and Thattil (2018). Msengi (2007) looked at the causes of stress and discovered that alienation or discrimination, communication challenges, nostalgia, financial troubles, and academic pressure were all factors.

Furthermore, Opoku-Acheampong, Kretchy, Acheampong, Afrane, Ashong, Tamakloe, and Nyarko (2017) conducted a “school-based longitudinal study to investigate the relationship between stress and quality of life of undergraduate pharmacy students”. They discovered that the main stressors were “a large volume of material to be studied, laboratory report writing, constant pressure to maintain good grades, and a lack of leisure time”. In the current investigation, these findings were validated.

Several other studies have shown the different sources of stress for students. For instance, “role overload”, “role stagnation”, and “self-role distance” were all reported by Agrawal and Chahar (2007) among students in India. Also, it was found that huge content of syllabus increased the stress levels of students. In a similar vein, Shahmohammadia (2011) conducted a study on the stress and coping strategies of high school students in Tehran, finding that the top ranked stressors among students were fear of not being accepted into tertiary institution, examinations, lot of content to be learned, difficulty understanding subjects previously learned, too much homework, and a packed school schedule. All of these concerns had to do with schoolwork. Academic stress was also investigated by Adom, Essel, and Chukwuere (2020) in Ghana's higher education institutions, with the findings revealing that “lack of work schedule planning, unnecessary delays in work while attempting to meet deadlines or procrastination, poor eating, sleeping, and exercise habits, as well as unrealistic academic goals”, were the main causes of academic stress.

The results have some connection to the theories which were reviewed. In the Transactional Theory of Stress and Coping, it is made known that the interactions between an individual and his or her environment are what bring

about stress (Lazarus & Folkman, 1987). From the results of this study, most of the students became stressed when they considered their academic workload, their futures and what they felt they needed to succeed. Thus, stress arose from the interactions between individuals and elements in their environment.

From the forgoing, it is evident from the various findings that stress among students can be caused by a variety of factors. These cover issues relating to the workload of the individual, the lack of materials and facilities, poor performance, anxiety and worries about the future and difficulty with time management.

#### **Impact of Stress on the Academic Performance of Students**

The study revealed that stress can impact on academic performance in the sense that it makes students too tired to study, decreases ability to remember what has been studied and reduces retentive ability. Also, stress decreases concentration to study, increases the likelihood of making mistakes during examinations and reduces the desire to study. These were the major ways in which stress impacted the academic performance of the respondents.

From the results, it is clear that stress can affect academic performance of students in a negative way. Ultimately, academic performance can be derailed by the experience of stress. The findings are consistent with those of Olape, Lasiele, Chiaka, and Abidoeye (2017), who discovered a substantial link between stress levels and academic achievement of pupils in Kwara State, Nigeria. They revealed that “personal stress, interpersonal stress, environmental stress, achievement stress, and academic performance” all had a significant association. Similarly, Elias et al. (2011) investigated the

association between stress and academic performance among university students in Malaysia, and discovered negative association between stress levels and academic outcome, albeit, a weak one.

Pascoe, Hetrick, and Parker (2019) looked at the topic of stress among secondary and tertiary students. Academic-related stress was shown to be a substantial source of worry for secondary and tertiary students, with negative consequences on learning ability, academic achievement, quality of life, overall educational outcome and job outcomes. In a similar line, increased perceived academic-related stress predicted worse academic performance among German medical students (Kotter, Wagner, Bruheim, & Voltmer, 2017).

Throughout the literature, stress has been seen to be connected to poor academic performance. The study of Hill (2014) revealed that students with high stress levels and poor coping capacities performed poorly in their academic work. In a study of 121 Hong Kong medical students, high levels of self-reported stress were also connected to poor academic achievement (Stewart, Lam, Betson, Wong, & Wong, 1999). These data show that student stress is a significant factor impacting their academic performance. Overall, Adom, Chukwuere, and Osei (2020) believe that unless academic stress is well-managed, it can be harmful to academic achievement.

Regardless of being over a century old, the Yerkes-Dodson Law is still applicable in this study. Generally, research on the Yerkes-Dodson Law confirms that there is a correlation between high stress levels and performance (Cherry, 2020; Ross, 2017). The more stressed individuals feel, the less likely they are to perform better. This gives further credence to the findings of the

current study that when stress becomes high then it can affect academic performance negatively.

### **Impact of Stress on the Health of Students**

The study found that the major ways that stress impacts health included decreasing energy level and causing constant fatigue, decreasing sleep quality, and leading to constant anxiety. Also, stress caused headaches and body aches and led to depression among students. These were indications of how stress affects the health of the students in the study.

From these results, it is evident that stress can affect the health of students in a negative sense. In most cases, stress would make students feel tired and disturb their sleep. When the experience of stress prolongs, students may suffer from anxiety and depression. The findings corroborate those of Aafreen, Priya, and Gayathri (2018), who investigated stress among students in several professional institutions and its relationship to academic, social, and health-related aspects. Their findings showed that students in the scientific stream were more stressed than students in other streams, and that the stress had an impact on them cognitively, physically, and emotionally. Furthermore, pupils experienced anxiety and sadness, which negatively impacted their academic performance.

Students that are under a lot of academic stress have been seen to experience depression, anxiety, behavioural difficulties, impatience, and other concerns (Deb, Strodl & Sun, 2015; Verma, Sharma & Larson, 2002). Depression was also shown among stressed teenagers, since it is connected to lack of ability to focus, fear of failing, and a pessimistic assessment of the future, among other things (Busari, 2012). Hill (2014) looked on the link

between student stress and health and revealed that low level of psychological and emotional wellness has been linked to high levels of stress. All of these imply that stress has an impact on students' health.

Generally, every aspect of a student's health can be affected by stress. The school-based longitudinal study of Opoku-Acheampong et al. (2017) in Ghana indicated that perceived stress scores were significantly negatively associated with interpersonal relationships, physical and psychological health. From the evidence in the literature and the current study, it is obvious that stress can lead to several health issues.

### **Coping Mechanisms Adopted by Students to Mitigate their Experience of Stress**

Students seldom employed ritual-centered coping techniques to deal with stress, according to the study. Students in the research, on the other hand, mostly adopted Spiritual-Centered (SC) Coping Mechanisms. Cognitive Emotional Debriefing Coping Mechanisms and Collective Coping Mechanisms were then introduced.

The spiritual coping mechanisms mostly adopted by the respondents included leaving matters in the hands of God, asking for blessings from a spiritual person and singing a song to themselves to help reduce stress. Also, the respondents prayed that issues would be resolved on their own, asked someone to pray for them and read from the Bible or similar book for comfort and guidance.

In addition, the major coping mechanisms under Cognitive Emotional Debriefing Coping included making efforts to not remember the situation, being hopeful that things would change and engaging in activities that would

keep them busy. Also, it was shown that the respondents tried to convince themselves that the situation was not that bad and tried to 'remove' themselves from the situation.

Furthermore, in terms of collective coping, the respondents sought counsel from an older person in their family or community and asked for tips on how to deal with the problem. In addition, the respondents sought emotional support from family and friends and enlisted the assistance of a group of relatives or friends. These were the respondents' primary collective coping techniques.

The findings corroborate those of a number of earlier research studies. Msengi's (2007) study of foreign students in the U.S discovered that the best stress coping mechanisms were good interpersonal relationships, dating local students, and religious involvement. In a similar vein, Opoku-Acheampong et al. (2017) discovered that while the majority of students used positive stress management methods including time management, some turned to emotional eating and alcohol/substance abuse.

Furthermore, the findings are consistent with those of Adom et al. (2019), who found that setting attainable academic targets, proper planning and scheduling, good dietary, sleep, exercise and relaxation habits, and using Africultural coping strategies were all effective academic stress coping strategies. Several additional studies from other nations have found that students use diverse coping strategies to cope with stressful situations.

Engagement in sporting activities, listening to music, spending time with friends, sleeping, and retreating into seclusion were all used by students in a research in Pakistan (Shaikh et al., 2004). Instead of using avoidant

coping strategies such as denying, alcohol or drug abuse, and behavioural disengagement, students from Nepal mostly used active coping techniques like positive thoughts, proper planning, and self-acceptance (Sreeramareddy et al., 2007). Regularly exercising, praying, counselling, enjoying comedic movies, practicing meditation and listening to gentle music were all typical coping mechanisms used by Malaysian students in a qualitative research (Redhwan, Sami, Karim, Chan, & Zaleha, 2009).

Furthermore, Shahmohammadia (2011) looked at the coping techniques of high school students, namely those in 11th and 12th grades, and discovered that the students dealt with challenging situations maturely, they had a bit of withdrawing from the challenges they experienced in life. Morales-Rodriguez and Pérez-Mármol (2019) investigated levels of self-efficacy, anxiety, and coping strategies among Spanish university students, and discovered that the problem-solving skills, emotionally expressive, cognitive restructuring, and withdrawing from social situations were mostly used.

Also, inferring from the Transactional Theory of Stress and Coping which was reviewed in this study, people adopt a variety of coping strategies in dealing with their experience of stress. The same was confirmed in the current study. Additionally, similarities were observed among the findings of most of the previous studies discussed and the findings of the current study. The similarities make it clear that students adopt variety of coping mechanisms such as spiritual, cognitive and collective forms of coping to deal with the experience of stress.



## Gender Difference and Stress

According to the findings, there was no significant difference in stress levels between male and female pupils. The difference between male and female students' mean scores was not statistically significant, despite the fact that female students had higher mean scores. This means that the stress levels of male and female students are the same. It may be deduced from the findings that the male and female students had comparable experiences.

The findings are consistent with those of numerous earlier studies. Deb, Strodl, and Sun (2015), for example, looked at the academic stress and mental health of Indian high school students, as well as the relationships between several psychosocial variables and academic stress. Academic pressure caused stress in over two-thirds of the students (63.5%), with no significant variations across gender, age, grade, or numerous other personal characteristics. As a result, both male and female students expressed identical degrees of anxiety. In a similar vein, Talib and Zai-ur-Rehman (2012) looked at the impact of perceived stress on student academic performance and discovered that stress levels did not differ substantially across male and female students.

Furthermore, Dada, Babatunde, and Adeleye (2019) investigated the sources of academic stress and coping mechanisms among undergraduate students in Nigerian public higher education institutions. There was no statistically significant difference between male and female students' sense of stress, according to the study. The similarities in the data suggest that male and female students may be experiencing similar levels of stress.

Several researches have observed gender differences in stress reactivity, which contradicts these findings. For example, Kumar, Sharma, Gupta, Vaish, and Misra (2014) looked at the common sources of stress in medical students and found that female students were more stressed than male students. Msengi (2007) also identified significant gender differences in stress levels, with male students reporting lower stress levels than female students.

In this study, the finding that male and female students had similar levels of stress has a relation to theories reviewed. It can be noted that since the Transactional Theory of Stress and Coping indicate that stress levels depend on how people evaluate situations around them, a group of people will have similar levels of stress if they perceive situations in similar ways. This could explain the finding of this current study.

Further, the discrepancies between the current study's findings and the findings of these researchers might be due to variations in the stress assessment tool as well as disparities in sample characteristics. More study is necessary since there appears to be some contradictions, as some studies reported no gender differences in stress experience while others identified gender differences in stress experience.

#### **Age Difference and Stress**

According to the findings, there was a substantial variation in pupils' stress levels based on their age groupings. This means that the difference between the three age groups' mean scores was statistically significant. There was a substantial difference in mean scores between students aged 20 and under and those aged 21 to 25. Also, there was a significant difference in the mean scores of the students in the 20 years and below group and the students

in the above 25 years group. The implication is that students who were aged 20 years and below had mean scores which varied from the other groups. By comparison to the other age groups, these students experienced more stress. In essence, younger students were more stressed in this study.

The finding could be due to the fact that younger students may not have the necessary skills and experience to deal with the issues that may come their way. From the Transactional Theory of Stress and Coping, the results of the current study can be explained in the sense that students of different ages evaluated situations differently and as such had different levels of stress.

The findings are in line with the findings of Antoniou, Polychroni and Vlachakis (2006) that age was significant in the experience of stress. Specifically, younger individuals experience more stress and burnout than older individuals. Chen, Peng, Xu and O'Brien (2018) examined the different types of stressors experienced by adults of different ages, their coping strategies, and positive/negative affect and revealed that there were age differences in the experience of stress. This means that among students, age was significant in the experience of stress.

### **Chapter Summary**

This chapter dealt with the results and discussion of the study. Four research questions were answered in this study while two hypotheses were tested. It was found generally that the students experienced stress due to a variety of factors. The stress experienced affected their academic performance negatively. The health of students was also affected by the experience of stress. The students thus adopted a variety of coping strategies mostly spiritual, cognitive or collective coping to deal with the experience of stress.

There was no gender difference in the experience of stress while there was a difference in the experience of stress on the basis of age.



## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

The preceding chapter focused on the study's findings and debate. The study's summary, results, and recommendations are covered in this chapter.

The chapter concludes with implications for counselling and suggestions for further research.

#### Summary of Study

The purpose of this study was to explore the perceived impact of stress on the academic performance and health of students in Colleges of Education in Ghana. Specifically, the study sought to answer five research questions and test two hypotheses.

#### Research Questions

1. What is the level of stress experienced by students in Colleges of Education in Ghana?
2. What are the major causes of stress experienced by students in Colleges of Education in Ghana?
3. What is the impact of stress on the academic performance of students in Colleges of Education in Ghana?
4. What is the impact of stress on the health of students in Colleges of Education in Ghana?
5. What are the coping mechanisms adopted by students in Colleges of Education in Ghana to mitigate their experience of stress?

## Hypotheses

1. H<sub>0</sub>1: There is no significant gender difference in the experience of stress among students in Colleges of Education in Ghana.

H<sub>1</sub>1: There is a significant gender difference in the experience of stress of among students in Colleges of Education in Ghana.

2. H<sub>0</sub>2: There is no significant difference in the experience of stress of students in Colleges of Education in Ghana on the basis of age.

H<sub>1</sub>2: There is a significant difference in the experience of stress of students in Colleges of Education in Ghana on the basis of age.

Literature relating to the study were reviewed. It deals with the theoretical framework, the conceptual framework and the empirical review of the study. Specifically, the study dealt with the Transactional Theory of Stress and Coping, Ryff's Theory of Psychological Well-being and Yerkes-Dodson's Law. Also, concepts relating to stress, its effects and management were reviewed. Empirical literature relating to the objectives of the study were reviewed. Overall, it was observed from the literature review that stress can negatively affect academic performance as well as the health of students.

The study used a descriptive survey research approach. A stratified sample of 275 students from St. Vincent College of Education, Atebubu College of Education, and OLA College of Education was chosen. A questionnaire adapted from the Student-Life Stress Inventory, the Africultural Coping Systems Inventory (ACSI), and Duncan-Williams' (2015) Scale on Stress Impact was used to collect data. Descriptive and inferential statistics were used to analyze the data.

## Major Findings

The following findings emerged from the study:

1. The study revealed that the respondents experienced stress often as depicted by their desire to being loved by everyone, finding perfect solution to problems, worrying a lot and procrastinating a lot. The respondents also sometimes experienced stress as shown in their lack of resources, dealing with too many changes, worrying about taking texts, huge overload, interpersonal issues and academic work issues.
2. The study revealed that the major causes of stress under academic-related stress included high academic workload, lack of learning materials/resources, poor performance in examinations and difficulty reading and understanding modules. Under, psychosocial stress, the major causes included financial problems, anxiety about performance in exams, worries about future, inability to manage time and lack of time for relaxation.
3. The study revealed that stress can impact on academic performance in the sense that it makes students too tired to study, decreases ability to remember what has been studied and reduces retentive ability. Also, stress decreases concentration to study, increases the likelihood of making mistakes during examinations and reduces the desire to study. These were the major ways in which stress impacted the academic performance of the respondents.
4. The study found that the major ways that stress impacts health included decreasing energy level and causing constant fatigue, decreasing sleep quality, and leading to constant anxiety. Also, stress

caused headaches and body aches and led to depression among students. These were indications of how stress affects the health of the students in the study.

5. The study revealed that ritual-centered coping mechanisms were rarely used by students in coping with stress. However, Spiritual-Centered (SC) Coping mechanisms were mostly used by the students in the study. This was followed by Cognitive Emotional Debriefing Coping mechanisms and Collective Coping mechanisms.
6. The spiritual coping mechanisms mostly adopted by the respondents included leaving matters in the hands of God, asking for blessings from a spiritual person and singing a song to themselves to help reduce stress. Also, the respondents prayed that things would work themselves out, asked someone to pray for them and read from the Bible or similar book for comfort and guidance.
7. In addition, the major coping mechanisms under Cognitive Emotional Debriefing Coping included trying to forget about the situation, hoping that things would get better with time and finding other things to keep busy. Also, it was shown that the respondents tried to convince themselves that the situation was not that bad and tried to 'remove' themselves from the situation.
8. Further, in terms of collective coping, the respondents asked for suggestions on how to deal with the situation and sought advice about how to handle the situation from an older person in their family or community. Also, the respondents sought emotional support from



family and friends and got a group of family or friends to help. These were the major collective coping mechanisms of the respondents.

9. The study revealed that there was no significant difference between male and female students in terms of their experience of stress. Even though the female students had higher mean scores than male students, the difference was not statistically significant. This implies that male and female students do not vary in their experience of stress. From the results, it can be inferred that the experiences of the male and female students were similar.

10. The study found that there was a significant difference in the stress experience of students on the basis of their age groups. This implies that the difference in the mean scores of the three different age groups was statistically significant. There was a significant difference in the mean scores of the students in the 20 years and below group and the students in the 21 to 25 years group. Also, there was a significant difference in the mean scores of the students in the 20 years and below group and the students in the above 25 years group. By comparison to the other age groups, the students aged 20 years and below experienced more stress.

### **Conclusions**

Some conclusions can be drawn on the basis of the findings of the study. Firstly, it is concluded that students in Colleges of Education in Ghana experienced stress which is mostly depicted in terms of general worries about life and academic issues.

Secondly, it is concluded that stress among students in Colleges of Education can be caused by variety of factors which may be academic-related or based on psychosocial issues. These causes come from nature of academic work and personal worries about issues in life.

In addition, it is concluded that the academic performance of students in Colleges of Education can be derailed by the experience of stress since stress can affect ability to concentrate, strength to study and ability to remember. Aside this, stress can affect the health of students by affecting their strength, sleep and general mental health and wellbeing.

Further, it is concluded that students in Colleges of Education adopt varied coping mechanisms to mitigate their experience of stress. These mechanisms are mostly religious or spiritual as well as mental. There are also times when students cope with stress by relying on family and friends.

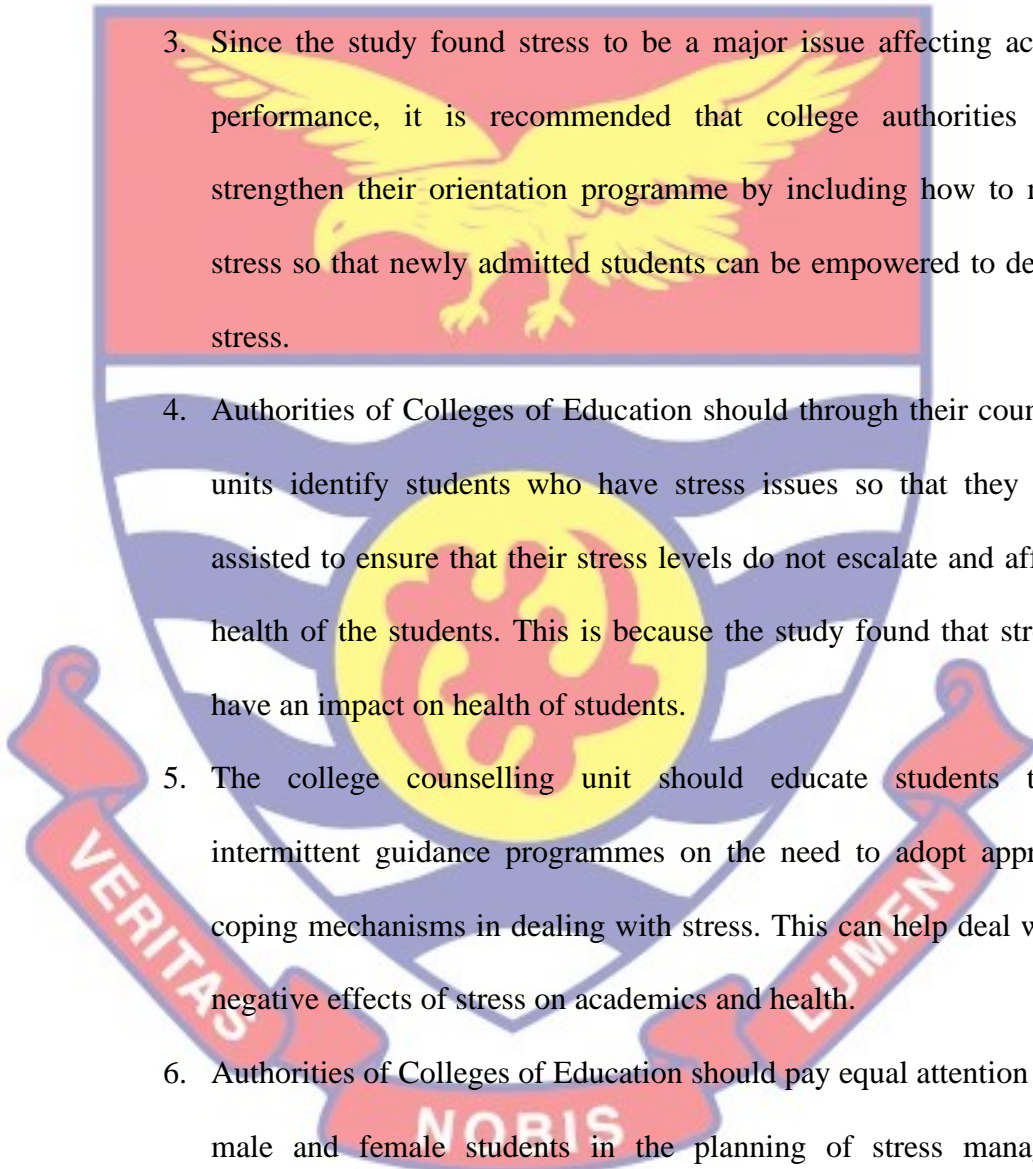
Regarding the role of demographic variables, it is concluded that male and female students in Colleges of Education experience similar levels of stress. However, it is concluded in terms of age that younger students experienced more stress compared to older students.

### **Recommendations**

The following recommendations are made based on the findings of the study:

1. Authorities of Colleges of Education should collaborate with College counsellors to organise workshops for students on how to deal with their personal worries and problems since the study found that stress was mostly experienced in these forms.
2. Authorities of Colleges of Education should collaborate with College counsellors to organise workshops and seminars for students on how

they can manage academic workload so that they can be equipped to deal with the huge academic workload causing them stress. This is because academic workload was a major cause of stress among the respondents. College counsellors should take the forefront in organising such workshops.

- 
3. Since the study found stress to be a major issue affecting academic performance, it is recommended that college authorities should strengthen their orientation programme by including how to manage stress so that newly admitted students can be empowered to deal with stress.
  4. Authorities of Colleges of Education should through their counselling units identify students who have stress issues so that they can be assisted to ensure that their stress levels do not escalate and affect the health of the students. This is because the study found that stress can have an impact on health of students.
  5. The college counselling unit should educate students through intermittent guidance programmes on the need to adopt appropriate coping mechanisms in dealing with stress. This can help deal with the negative effects of stress on academics and health.
  6. Authorities of Colleges of Education should pay equal attention to both male and female students in the planning of stress management workshops since it was found that both male and female students experience similar levels of stress.

7. College authorities should pay more attention to younger students in their quest to help reduce stress levels of students, since it was found that they had more stress experiences.

### **Implications for Counselling**

The following implications are given for counselling:

1. College counsellors can improve their skills on how to assist students with stress problems. This is because more and more students keep experiencing stress.
2. College counsellors should make stress management a key part of the services they provide.
3. College counsellors should arrange special 'stress clinics' for students where only students with self-reported or diagnosed stress would be attended to.

### **Suggestions for Further Research**

The following suggestions are made for future research:

1. Future researchers should explore using a qualitative approach to study the actual stress experiences of students. This can help obtain in-depth lived experiences of the students so that steps can be taken to assist them.
2. Future research can focus on how stress experienced by tutors affect their work performance in the Colleges of Education in Ghana. This can help establish whether stress is peculiar to only students or the tutors as well.

## REFERENCES

- Aafreen, M. M., Priya, V., & Gayathri, R. (2018). Effect of stress on academic performance of students in different streams. *Drug Invention Today*, 10(9), 1776-1780.
- Aboagye, J. K. (2000). Overview of teacher education in Ghana. *Proceedings of the National Teachers' Education Forum, August 2-5*.
- Ackon, P. K. (2014). *Saving the sinking educational system in Ghana*. <http://www.myjoyonline.com/opinion/>
- Adom, D., Chukwuere, J. E., & Osei, M. (2020). Effective ways of managing academic stress. *Journal of Humanities and Social Sciences*, 28(2), 1055-1064.
- Adom, D., Essel, H. B., & Chukwuere, J. (2020). The state of academic stress in the higher institutions of Ghana: The way forward. *American Journal of Educational Research*, 8(2), 321-331.
- Adom, D., Essel, H. B., & Chukwuere, J. E. (2019). *Academic stress among faculty and students in higher institutions of Ghana: Sources, causes and coping mechanisms*. <https://events.aau.org/corevip/wp-content/uploads/sites/3/2019/12/Academic-Stress-among-Faculty-and-Students-in-Higher-Institutions-of-Ghana.pdf>
- Affum-Osei, E., Asante, A. E., & Forkuoh, S. K. (2014). Perceived stress and academic performance of senior high school students in Western Region, Ghana. *European Journal of Business and Social Sciences*, 2(11), 88-101.

Agolla, J. E., & Ongori, H. (2009). An assessment of academic stress among undergraduate students. The case of University of Botswana, Gaborone. *Educational Research Review*, 4(2), 063-070.

Agrawal, R. K., & Chahar, S. S. (2007). Examining role stress among technical students in India. *Social Psychology of Education*, 10(1), 77-91.

Akhihiero, E. T. (2011). Effect of inadequate infrastructural facilities on academic performance of students of Oredo Local Government Area of Edo State. *The Nigerian Academic Forum*, 20(1), 1-6.

Amedahe, F. K. (2002). *Fundamentals of educational research methods*. University of Cape Coast.

American Psychological Association. (2013). *Stress: The different types*. Author.

Amponsah, M. O., & Owolabi, H. O. (2011). Perceived stress levels of fresh university students in Ghana: A case study. *British Journal of Educational Research*, 1(2), 153-169.

Anamuah-Mensah, J. (2006). Teacher education and practice in Ghana. In T. R. Kolawole., P. Kupari (Eds.), *Educational issues for sustainable development in Africa* (pp. 28-40). Institute for Educational Research.

Andrews, B., & Wilding, J. (2004). The relation of depression and anxiety to life-stress and achievement in students. *British Journal of Psychology*, 95(4), 509-521.

Ang, R. P., & Huan, V. S. (2006). Relationship between academic stress and suicidal ideation: Testing for depression as a mediator using multiple regression. *Child Psychiatry and Human Development*, 37(2), 133–143.

Antoniou, A. -S., Polychroni, F., & Vlachakis, A. -N. (2006). Gender and age differences in occupational stress and professional burnout between primary and high-school teachers in Greece. *Journal of Managerial Psychology*, 21(7), 682–690.

Ashton, C. H., & Kamali, F. (1995). Personality, lifestyles, alcohol and drug consumption in a sample of British medical students. *Medical Education*, 29(3), 187–192.

Azila-Gbettor, E. M., Atatsi, E. A., Danku, L. S., Soglo, N. Y. (2015). Stress and academic achievement: Empirical evidence of business students in a Ghanaian Polytechnic. *International Journal of Research in Business Studies and Management*, 2(4), 78-98.

Bakhsh, M. M., & Sayed, S. A. (2015). Sources of academic stress: Stress management among regular and executive MBA students. *International Journal of Endorsing Health Science Research (IJEHSR)*, 3(1), 17-22.

Baldwin, D. A., Wilkinson, F. C., & Barkley, D. C. (2000). *Effective management of student employment: Organizing for standard deployment in academic libraries*. Libraries Unlimited, Inc.

Basavanthappa, B. T. (2004). *Fundamentals of nursing*. Jaypee Brothers Medical Publishers.

Bataineh, M. Z. (2013). Academic stress among undergraduate students: The case of education faculty at King Saud University. *International Interdisciplinary Journal of Education*, 2(1), 82-88.

Bee, H., & Bjorklund, B. R. (2004). *The journey of adulthood*. Prentice Hall.

Bernal-Morales, B., Rodríguez-Landa, J. F., & Pulido-Criollo, F. (2015). *Impact of anxiety and depression symptoms on scholar performance in high school and university students, a fresh look at anxiety disorders*. IntechOpen.

Bernert, R. A., Merrill, K. A., Braithwaite, S. R., Van Orden, K. A., & Joiner, T. E., Jr. (2007). Family life stress and insomnia symptoms in a prospective evaluation of young adults. *Journal of Family Psychology*, 21(1), 58–66.

Bernier, A., Larose, S., Boivon, M., & Soucy, N. (2004). Attachment state of mind: Implications for adjustment to college. *Journal of Adolescent Research*, 19, 783-806.

Budu, H. I. (2014). *Nursing students' experience of stress during their education: A study in the Central Region, Ghana*. [Unpublished master's thesis, University of Cape Coast].

Bukoye, R. O. (2017). Academic stress and drug abuse factors inhibiting psychological well-being among undergraduates: Its counselling implications. *European Scientific Journal*, 13(8), 60-74.

Busari, A. O. (2012). Evaluating the relationship between gender age depression and academic performance among adolescents. *Scholarly Journal of Education*, 1(1), 6-12.



Campbell, F. (2006). *Occupational stress in the construction industry*. Chartered Institute of Building.

Carter, J. S., Garber, J., Ciesla, J. A., & Cole, D. A. (2006). Modeling relations between hassles and internalizing and externalizing symptoms in adolescents: A four-year prospective study. *Journal of Abnormal Psychology, 115*(3), 428–442.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*(2), 267–287.

Chapell, M. S., Blanding, Z. B., Silverstein, M. E., Takahashi, M., Newman, B., Gubi, A., & McCann, N. (2005). Test anxiety and academic performance in undergraduate and graduate students. *Journal of Educational Psychology, 97*(2), 268–274.

Chen, K. L. (2009). A study of stress sources among college students in Taiwan. *Journal of Academic and Business Ethics, 2*(14), 1-8.

Chen, Y., Peng, Y., Xu, H., & O'Brien, W. H. (2018). Age differences in stress and coping: Problem-focused strategies mediate the relationship between age and positive affect. *International Journal of Aging and Human Development, 86*, 347-363.

Cherry, K. (2020). *The Yerkes-Dodson Law and performance*. <https://www.verywellmind.com/what-is-the-yerkes-dodson-law-2796027>

Comer, R. J. (2010). *Abnormal psychology* (7<sup>th</sup> ed.). Worth Publishers.

Connelly, L. M. (2008). Pilot studies. *Medsurg Nursing, 17*(6), 411-412.

Conner, J., Pope, D., & Galloway, M. (2009). Success with less stress. *Educational Leadership*, 67(4), 54-58.

Copeland, E. P. (2008). Stress in children and adolescents: Tips for parents. *National Association of School Psychologists Communiqué*, 37(3), 50-56.

Crum, A. J., Salovey, P., & Achor, S. (2013). Rethinking stress: The role of mindsets in determining the stress response. *Journal of Personality and Social Psychology*, 104(4), 716-733.

Curcio, G., Ferrara, M., & De, G. L. (2006). Sleep loss, learning capacity and academic performance. *Sleep Medicine Reviews*, 10(5), 323-337.

Dada, J. O., Babatunde, S. O., & Adeleye, R. O. (2019). Assessment of academic stress and coping strategies among built environment undergraduate students in Nigerian higher education. *Journal of Applied Research in Higher Education*, 11(3), 367-378.

Dallman, M. F., Strack, A. M., Akana, S. F., Bradbury, M. J., Hanson, E. S., Scribner, K. A., & Smith, M. (1993). Feast and famine: Critical role of glucocorticoids with insulin in daily energy flow. *Frontiers in Neuroendocrinology*, 14(4), 303-347.

Dantzer, R. (2012). Depression and inflammation: An intricate relationship. *Biological Psychiatry*, 71(1), 4-5.

Dantzer, R., O'Connor, J. C., Lawson, M. A., & Kelley, K. W. (2011). Inflammation-associated depression: From serotonin to kynurenine. *Psychoneuroendocrinology*, 36(3), 426-436.

Deb, S., Strodl, E., & Sun, J. (2015). Academic stress, parental pressure, anxiety and mental health among Indian high school students. *International Journal of Psychology and Behavioural Sciences*, 5(1), 26-34.

Deb, S., Strodl, E., & Sun, J. (2015). Academic stress, parental pressure, anxiety and mental health among Indian high school students. *International Journal of Psychology and Behavioural Sciences*, 5(1), 26-34.

Denovan, A., & Macaskill, A. (2013). An interpretative phenomenological analysis of stress and coping in first year undergraduates. *British Educational Research Journal*, 39(6), 1002–1024.

Derogatis, L. R., & Coons, H. L. (1993). Self-report measures of stress. In L. R. Goldberger & S. Bereznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 200- 233). The Free Press.

Duncan-Williams, B. (2015). *Academic stress, academic performance and the psychological well-being of senior high school remedial students in the Greater Accra Region of Ghana*. [Unpublished master's thesis, University of Ghana, Legon].

Dusselier, L., Dunn, B., Wang, Y., Shelley, M. C., & Whalen, D. F. (2005). Personal, health, academic, and environmental predictors of stress for residence hall students. *Journal of American College Health*, 54(1), 15-24.

Dwyer, A. L., & Cummings, A. L. (2001). Stress, self-efficacy, social support, and coping strategies in university students. *Canadian Journal of Counselling*, 35(3), 208–220.

Elias, H., Ping, W. S., & Abdullah, M. C. (2011). Stress and academic achievement among undergraduate students in Universiti Putra Malaysia. *Procedia—Social and Behavioural Sciences*, 29, 646-655.

Essel, G. & Owusu, P. (2017). *Causes of students' stress, its effects on their academic success and stress management by students-Case study at*

*Seinajoki University of Applied Sciences, Finland*. [Unpublished master's thesis, Seinajoki University of Applied Sciences, Finland].

Feng, G. F. (1992). *Management of stress and loss*. Psychological Publishing Company, Ltd.

Gadzella, B. M. (1994). Student-Life Stress Inventory: Identification of and reactions to stressors. *Psychological Reports*, 74(2), 395–402.

Garrett, J. B. (2001). Gender differences in college related stress. *Undergraduate Journal of Psychology*, 14(7), 5-9.

Gill, J., Johnson, P., & Clark, M. (2010). *Research methods for managers*. SAGE Publications.

Gotlib, I. H., & Wheaton, B. (1997). *Stress and adversity over the life course trajectories and turning points*. Cambridge University Press.

Greenberg, J., & Baron, R. A. (2000). *Behaviour in organisations* (7th ed.). Prentice-Hall.

Gustems-Carnicer, J., Calderón, C., & Calderón-Garrido, D. (2019). Stress, coping strategies and academic achievement in teacher education students. *European Journal of Teacher Education*, 42(3), 375-390.

Guthrie, E. A., Black, D., Shaw, C. M., Hamilton, J., Creed, F. H., & Tomenson, B. (1995). Embarking upon a medical career: Psychological morbidity in first year medical students. *Medical Education, 29*(5), 337–341.

Hanna, L., Wilson, M., & Hanna, A. (2018). A questionnaire study to investigate stress among future pharmacists by gender and year group. *Pharmacy, 6*, 75, 2-9.

Heinrichs, M., Baumgartner, T., Kirschbaum, C., & Ehlert, U. (2003). Social support and oxytocin interact to suppress cortisol and subjective responses to psychosocial stress. *Biological Psychiatry, 54*(12), 1389-1398.

Hertzog, M. A. (2008). Considerations in determining sample size for pilot studies. *Research in Nursing & Health, 31*, 180-191.

Hill, C. (2014). School stress, academic performance, and coping in college freshmen. *Journal at the University of Northern Colorado, 4*(2), 90-97.

Holahan, C. J., & Moos, R. H. (1987). Risk, resistance, and psychological distress: A longitudinal analysis with adults and children. *Journal of Abnormal Psychology, 96*(1), 3–13.

Holahan, C. J., Moos, R. H., Holahan, C. K., Cronkite, R. C., & Randall, P. K. (2001). Drinking to cope, emotional distress and alcohol use and abuse: A ten-year model. *Journal of Studies on Alcohol, 62*(2), 190–198.

Howard, M. S., & Medway, F. J. (2004). Adolescents' attachment and coping with stress. *Psychology in the Schools, 41*, 391-402.

Hudd, S., Dumlao, J., Erdmann-Sager, D., Murray, D., Phan, E., Soukas, N., & Yokozuka, N. (2000). Stress at college: Effects on health habits, health status and self-esteem. *College Student Journal*, 34, 217- 227.

Hysenbegasi, A., Hass, S. L., & Rowland, C. R. (2005). The impact of depression on the academic productivity of university students. The *Journal of Mental Health Policy and Economics*, 8(3), 145–151.

Imonikebe, B. U. (2009). *Strategies for promoting the nutritional and health status of students in higher institution of learning in Nigeria for sustainable national development*. Paper Presented at the Fourth Regional Conference of Higher Education for Sustainable Development in Africa, Kampala, Uganda.

Isaac, S., & Michael, W. B. (1995). *Handbook in research and evaluation*. Educational and Industrial Testing Services.

Jacob, B. A. (2011). Can principals identify effective teachers? Evidence on subjective performance evaluation in education. *Journal of Labour Economics*, 26(1), 101-136.

Jain, G., & Singhai, M. (2018). Academic stress among students: A review of literature. *Prestige e-Journal of Management and Research*, 4(2), 58-67.

Jogaratnam, G., & Buchanan, P. (2004). Balancing the demands of school and work: Stress and employed hospitality students. *International Journal of Contemporary Hospitality Management*, 16(4), 237-245.

Jones, P. (2001). Are educated workers really more productive? *Journal of Development Economics*, 64, 67–79.

Kadapatti, M. G., & Vijayalaxmi, A. H. M. (2012). Stressors of academic stress-A study of pre-university students. *Indian Journal of Science Resources*, 3(1), 171-175.

Kalli, K. A., & Shehu, A. B. (2018). Effects of stress on the academic performance of students of tertiary institution: A case study of Ramat Polytechnic Maiduguri, Borno State, Nigeria. *International Journal of Humanities, Art and Social Studies (IJHAS)*, 3(3), 79-88.

Kariv, D., & Heiman, T. (2005). Task-oriented versus emotion-oriented coping strategies: The case of college students. *College Student Journal*, 39(1), 72-85.

Katkin, E. S., Dermit, S., & Wine, S. K. (1993). Psychophysiological assessment of stress. In L. Goldberger & S. Breznitz, (Eds.), *Handbook of stress* (2<sup>nd</sup> ed., pp. 142-157). Free Press.

Kessler, R. C. (1997). The effects of stressful life events on depression. *Annual Review of Psychology*, 48, 191–214.

Kotter, T., Wagner, J., Bruheim, L., & Voltmer, E. (2017). Perceived medical school stress of undergraduate medical students predicts academic performance: An observational study. *BMC Medical Education*, 17(1), 256-262.

Kumar, M., Sharma, S., Gupta, S., Vaish, S., & Misra, R. (2014). Effect of stress on academic performance in medical students--A cross sectional study. *Indian Journal of Physiology and Pharmacology*, 58(1), 81-86.

Lal, K. (2014). Academic stress among adolescent in relation to intelligence and demographic factors. *American International Journal of Research in Humanities, Arts and Social Sciences*, 5(1), 123-129.

Lazarus, R. S. (1966). *Psychological stress and the coping process*. McGraw-Hill.

Lazarus, R. S. (1997). Hurrah for a systems approach: Commentary on the utility of systems models of stress and coping for applied research. *Journal of Health Psychology*, 2, 158-160.

Lazarus, R. S., & Cohen, J. B. (1977). *Environmental stress*. Plenum.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, 1(3), 141-169.

Lewinsohn, P. M., Allen, N. B., Seeley, J. R., & Gotlib, I. H. (1999). First onset versus recurrence of depression: Differential processes of psychosocial risk. *Journal of Abnormal Psychology*, 108, 483-489.

Li, H. & Lin, C. D. (2003). College stress and psychological well-being of Chinese college students. *Acta Psychological Sinica*, 35(2), 222-230.

Lin, Y. M., & Chen, F. S. (2009). Academic stress inventory of students at universities and colleges of technology. *World Transactions on Engineering and Technology Education*, 7(2), 157-16.

Macan, T. H., Shahani, C., Dipboye, R. L., & Philips, A. P. (1990). College students time management: Correlations with academic performance and stress. Uganda. *Journal of Educational Psychology*, 82, 760-768.

Maes, M. (2008). The cytokine hypothesis of depression: Inflammation, oxidative & nitrosative stress (IO&NS) and leaky gut as new targets for adjunctive treatments in depression. *Neuroendocrinology Letters*, 29(3), 287-291.



Malach-Pines, A., & Keinan, G. (2007). Stress and burnout in Israeli police officers during a Palestinian uprising (Intifada). *International Journal of Stress Management*, 14(2), 160–174.

Mallinckrodt, B., & Wei, M. (2005). Attachment, social competencies, social support, and psychological distress. *Journal of Counseling Psychology*, 52, 358-367.

Masi, G., Sbrana, B., Poli, P., Tomaiuolo, F., Favilla, L., & Marcheschi, M. (2000). Depression and school functioning in non-referred adolescents: A pilot study. *Child Psychiatry and Human Development*, 30(3), 161–171.

Mensah, M. E. (2020). *Transitional experiences of administrators in the upgrade of Colleges of Education (CoEs) to tertiary status*. [Unpublished master's thesis, University of Cape Coast].

Misra, R., & Castillo, L. G. (2004). Academic stress among college students: Comparison of American and International students. *International Journal of Stress Management*, 11, 132-148.

Moos, R. H., & Billings, A. G. (1982). Conceptualizing and measuring coping resources and processes. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 212-230). Free Press.

Moos, R. H., & Schaefer, J. A. (1993). Coping resources and processes: current concepts and measures. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress* (2nd ed., pp. 234-258). Free Press.

Morales-Rodríguez, F. M., & Pérez-Mármol, J. M. (2019). *The role of anxiety, coping strategies, and emotional intelligence on general perceived self-efficacy in university students*. Retrieved from

<https://www.frontiersin.org/articles/10.3389/fpsyg.2019.01689/full>

Msengi, I. G. (2007). Sources of stress and its impact on health behaviors and academic performance of international students at a comprehensive Midwestern University. *International Journal of Global Health and Health Disparities*, 5(1), 55-69.

Muir, M. (2006). *Stress. The principals' partnership*. Retrieved from <http://www.principalspartnership.com/stress806.pdf>

Nakalema, G., & Ssenyonga, J. (2013). Academic stress: Its causes and results at a Ugandan University, Uganda. *African Journal of Teacher Education (AJOTE)*, 3(3).

Ng, K. C., Chiu, W. K., & Fong, B. Y. F. (2016). A review of academic stress among Hong Kong undergraduate students. *Journal of Modern Education Review*, 6(8), 531-540.

Ofori, R., & Dampson, D. R. (2011). *Research methods and statistics using SPSS*. Payless Publication Limited.

Oginyi, R. C. N., Mbam, O. S., Sampson, N., Chukwudi, E. J., & Nwoba, M. O. E. (2018). Personality factors, academic stress and socio-economic status as factors in suicide ideation among undergraduates of Ebonyi State University. *Asian Social Science*, 14(9), 25-37.

Olope, O. R., Lasiele, Y., Chiaka, A. E., & Abidoye, T. K. (2017). Stress level and academic performance of university students in Kwara State, Nigeria. *Makerere Journal of Higher Education*, 9(1), 103-112.

Opoku-Acheampong, A., Kretchy, I. A., Acheampong, F., Afrane, B. A., Ashong, S., Tamakloe, B., & Nyarko, A. K. (2017). Perceived stress and quality of life of pharmacy students in University of Ghana. *BMC Research Notes*, *10*(1), 115-121.

Organisation for Economic Cooperation and Development (OECD). (2015).

*PISA 2015 results (Volume III)*. Author.

Oyerinde, O. O. (2004). *Stress: Problems in health education*. Codat Publications

Park, C. L., & Adler, N. E. (2003). Coping style as a predictor of health and well-being across the first year of medical school. *Health Psychology*, *22*(6), 627-631.

Parkes, R. K. (1986). Coping in stressful episodes: The role of individual differences, environmental factors, and situational characteristics. *Journal of Personality and Social Psychology*, *51*(6), 1277-1292.

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. Jossey-Bass.

Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2019). The impact of stress on students in secondary school and higher education. *International Journal of Adolescence and Youth*, *25*(1), 104-112.

Pedersen D. E., & Jodin V. (2016). Stressors associated with the school spillover of college undergraduate. *The Social Science Journal*, *1*(53), 40-48.

Pervanidou, P., & Chrousos, G. P. (2012). Metabolic consequences of stress during childhood and adolescence. *Metabolism*, *61*(5), 611-619.

Pervanidou, P., & Chrousos, G. P. (2012). Metabolic consequences of stress during childhood and adolescence. *Metabolism*, *615*, 611–619.

Pierceall, E. A., & Keim, M. C. (2007) Stress and coping strategies among community college students. *Community College Journal of Research and Practice*, *31*, 703-712.

Radcliff, C., & Lester, H. (2003). Perceived stress during undergraduate medical training: A qualitative study. *Medical Education*, *37*, 32-57.

Ramachandiran, M., & Dhanapal, S. (2018). Academic stress among university students: A quantitative study of Generation Y and Z's perception. *Partanika Journal of Social Science & Humanities*, *26*(3), 2115-2128.

Ramli, N. H. H., Alavi, M., Mehrihezad, S. A. & Ahmadi, A. (2018). Academic stress and self-regulation among university students in Malaysia: Mediator role of mindfulness. *Behavioural Science*, *8*(12), 33-45.

Reddy, K. J., Menon, K. J., & Thattil, A. (2017). Understanding academic stress among adolescents. *Artha-Journal of Social Sciences*, *16*(1), 39-52.

Redhwan, A. A. N., Sami, A. R., Karim, A. J., Chan, R., & Zaleha, M. I. (2009). Stress and coping strategies among management and science university students: A qualitative study. *International Medical Journal*, *8*(2), 11–15.

Rees, C. J., & Redfern, D. (2000). Recognising the perceived causes of stress—A training and development perspective. *Industrial and Commercial Training*, *32*, 120-127.

Robotham, D., & Julian, C. (2006). Stress and the higher education student: A critical review of the literature. *Journal of Further and Higher Education, 30*(2), 107–117.

Ross, P. (2017). *The stress curve (Yerkes and Dodson Law)*.  
[https://nursingeducationnetwork.net/2017/07/20/the-stress-curve-](https://nursingeducationnetwork.net/2017/07/20/the-stress-curve-yerkes-and-dodson-law/)

[yerkes-and-dodson-law/](https://nursingeducationnetwork.net/2017/07/20/the-stress-curve-yerkes-and-dodson-law/)

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069–1081.

Saipanish, R. (2003). Stress among medical students in a Thai medical school. *Med Teach, 25*(5), 502–506.

Salami, S. D. (2001). Psychological correlates of career indecision among secondary school students. *Nigerian Journal of Applied Psychology, 6*(2), 116-125.

Sanders, A. E., & Lushington, K. (2002). Effect of perceived stress on student performance in dental school. *Journal of Dental Education, 66*(1), 75-81.

Saqib, M. (2018). Impact of stress on students' academic performance at secondary school level at District Vehari. *International Journal of Learning and Development, 8*(1), 84-93.

Saub, R., Rajesh, S. M., Muirhead, V., Dom T. M., Ismail, N. M., & Jamaludin, M. (2013). Perception of dental stress and social support among Malaysian dental students. *Annals of Dentistry (ADUM), 20*(1), 1–7.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson.

Scheaffer, R. L., Mendenhall III, W., & Ott, R. L. (2006). *Elementary survey sampling*. Thompson Higher Education.

Scheier, M. F., Weintraub, J. K., & Carver, C. S. (1986). Coping with stress: Divergent strategies of optimists and pessimists. *Journal of Personality and Social Psychology*, 51(6), 1257–1264.

Schwarzer, R. (2001). Stress, resources, and proactive coping. *Applied Psychology: An International Journal*, 50, 400-407.

Sedere, U. M. (2010). *Towards a stress free education: International perspective*. Paper presented at the Annual Academic Sessions of the Open University of Sri Lanka, February 2010.

Selye, H. (1976). *Stress in health and disease*. Butterworths.

Shahmohammadia, N. (2011). Students coping with Stress at high school level particularly at 11th & 12th grade. *Procedia-Social and Behavioural Sciences*, 30, 395–401.

Shaikh, B. T., Kahloon, A., Kazmi, M., Khalid, H., Nawaz, K., Khan, N., & Khan, S. (2004). Students, stress and coping strategies: A case of Pakistani medical school. *Education for Health*, 17(3), 346–353.

Sheykhjan, T. M. (2015). *Health education strategies for coping with academic stress*. Paper Presented at UGC Sponsored National Level Seminar on Proactive Stress Coping Strategies for Developing Mental Well Being, Kerala, India, 9<sup>th</sup> -10<sup>th</sup> January, 2015.

Shields, N. (2001). Stress, active coping, and academic performance among persisting and Non-persisting college students. *Journal of Applied Bio-behavioural Research*, 6, 65-81.

Shkulaku R. (2015). Student's stress in higher education institutions: A critical review of foreign literatures and the ones in Albania. *European Scientific Journal*, 11(10), 40-48.

Sideris, G. D. (2006). Coping is not an 'either' 'or': The interaction of coping strategies in regulating affect, arousal and performance. *Stress and Health*, 22, 315-327.

Smith, A., & Renk, O.A. (2007). Predictors of academic related stress in college students: an examination of coping, social support, parenting and anxiety. *Journal of National Association of Student Personnel Administrators (NASPA)*, 44, 405-431.

So, E. S., & Park, B. M. (2016). Health behaviors and academic performance among Korean adolescents. *Asian Nursing Research*, 10(2), 123-127.

Soucy, N., & Larose, S. (2000). Attachment and control in family and mentoring contexts as determinants of adolescent adjustment to college. *Journal of Family Psychology*, 14, 125-143.

Sreeramareddy, C. T., Shankar, P. R., Binu, V. S., Mukhopadhyay, C., Ray, B., & Menezes, R. G. (2007). Psychological morbidity, sources of stress and coping strategies among undergraduate medical students of Nepal. *BMC Med Education*, 7(26), 15-21.

Stankovska, G., Dimitrovski, D., Angelkoska, S., Ibraimi, Z., & Uka, V. (2018). Emotional intelligence, test anxiety and academic stress among university students. *Education in Modern Society, BCES Conference Books, 16*, 157-164.

Stephens, T. W., Basinski, M., Bristow, P. K., Bue-Valleskey, J. M., Burgett, S. G., Craft, L., & Heiman, M. (1995). Nature. The role of neuropeptide Y in the antiobesity action of the obese gene product. *Nature, 377*(6549), 530–532.

Stewart, S. M., Lam, T. H., Betson, C. L., Wong, C. M., & Wong, A. M. (1999). A prospective analysis of stress and academic performance in the first two years of medical school. *Medical Education, 33*(4), 243–250.

Struthers, C. W., Perry, R. P., & Menec, V. H. (2000). An examination of the relationships among academic stress, coping motivation, and performance in college. *Research in Higher Education, 41*(5), 581-592.

Stults-Kolehmainen, M. A., & Sinha, R. (2014). The effects of stress on physical activity and exercise. *Sports Medicine, 44*(1), 81-121.

Talib, N., & Zia-ur-Rehman, M. (2012). Academic performance and perceived stress among university students. *Educational Research and Review, 7*(5), 127-132.

Teh, C. K., Ngo, C. W., Zulkifli, R. A., Vellasamy, R., & Suresh, K. (2015). Depression, anxiety and stress among undergraduate students: A cross sectional study. *Open Journal of Epidemiology, 5*(4), 260-268.



Teigen, K. H. (1994). Yerkes-Dodson: A law for all seasons. *Theory & Psychology, 4*(4), 525-547.

Topper, E. F. (2007). Stress in the library workplace. *New Library World, 108*(11/12), 561-564.

UNESCO. (2012). *International standard classification of education (ISCED) 2011*. Author.

Utsey, S. O., Adams, E. P., & Bolden, M. (2000). Development and initial validation of the Africultural Coping Systems Inventory. *Journal of Black Psychology, 26*(2), 194–215.

Veena, N., & Shastri, S. (2016). Stress and academic performance. *The International Journal of Indian Psychology, 3*(3), 71-82.

Verma, S., Sharma, D., & Larson, R. W. (2002). School stress in India: Effects on time and daily emotions. *International Journal of Behavioural Development, 26*(6), 500-508.

Vermunt, R., & Steensma, H. (2005). How can justice be used to manage stress in organisations? In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of organisational justice* (pp. 383–410). Lawrence Erlbaum Associates Publishers.

Volpe, J. F. (2000). A guide to effective stress management. *Career and Technical Education, 48*(10), 183-188.

Wani, S. A., Nagar, D., & Buhroo, A. A. (2018). *Impact of academic stress on academic achievement: A systematic review of literature*. 2nd International Conference on Research Developments in Arts, Social Science and Humanities. Indian Council of Social Science Research (ICSSR), 8th-9th April, 2018.

Wilde, M. (2008). *Are we stressing out our kids?*

<http://www.greatschools.org/parenting/teaching-values/stressed-out-kids.gs?content=645>

Wong, P. T. P., Wong, L. C. J., & Scott, C. (2006). Beyond stress and coping:

The positive psychology of transformation. In P. T. P. Wong & L. C. J.

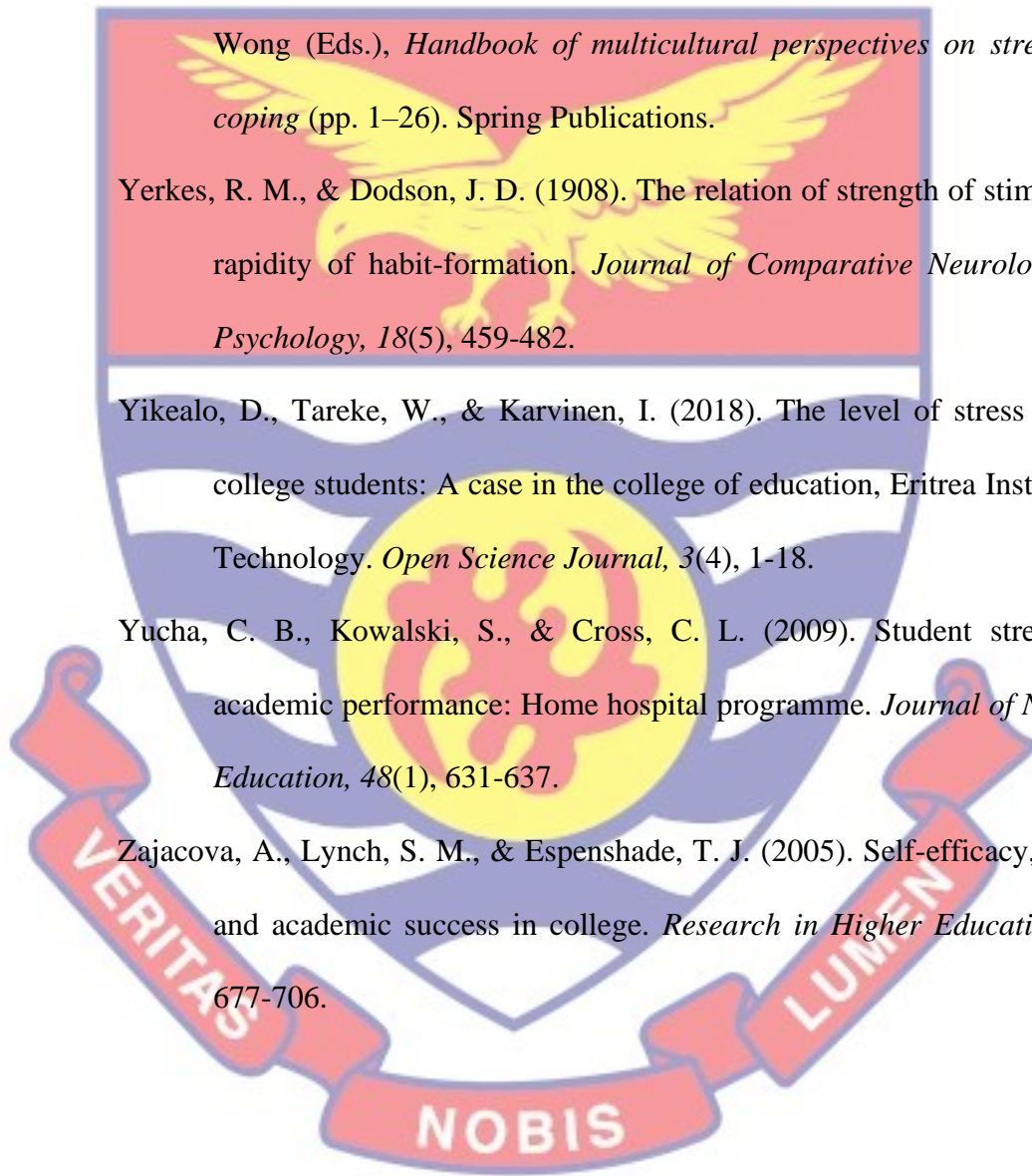
Wong (Eds.), *Handbook of multicultural perspectives on stress and coping* (pp. 1–26). Spring Publications.

Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology*, 18(5), 459-482.

Yikealo, D., Tareke, W., & Karvinen, I. (2018). The level of stress among college students: A case in the college of education, Eritrea Institute of Technology. *Open Science Journal*, 3(4), 1-18.

Yucha, C. B., Kowalski, S., & Cross, C. L. (2009). Student stress and academic performance: Home hospital programme. *Journal of Nursing Education*, 48(1), 631-637.

Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-efficacy, stress, and academic success in college. *Research in Higher Education*, 46, 677-706.





APPENDICES

APPENDIX A

QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

DEPARTMENT OF GUIDANCE AND COUNSELLING

The purpose of this study is to explore the impact of stress on the academic performance and health of students in Colleges of Education in Ghana. The results of the study will help make recommendations that can help reduce the impact of stress on college students. Any information you provide will be kept confidential. Please feel free to participate in the study.

Thank you.

Please respond by ticking [✓] and writing where necessary.

**Section A – Background / Demographic Information**

**Direction:** Kindly provide the required information or put a tick (✓) in the appropriate column to indicate your response to each of the items in this section.

1. Gender: Male [ ] Female [ ]
2. Age: 20 years and below [ ] 21-25 years [ ] Above 25 years [ ]
3. College: .....

**Section B: Level of Stress Experienced by Students**

Please indicate your experiences using the scale below:

**1 = never, 2 = seldom, 3 = occasionally, 4 = often, and 5 = most of the time.**

<b>Statement: As a student:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. I have experienced frustration due to delays in reaching my goal					
2. I have experienced daily hassles or difficulties which affected me in reaching my goals.					
3. I have experienced lack of sources (money for auto, books, etc.).					
4. I have experienced failures in accomplishing the goals that I set.					
5. I have not been accepted socially (became a social outcast).					
6. I have experienced dating frustrations.					
7. I feel I was denied opportunities in spite of my qualifications.					
8. I have experienced conflicts which were produced by two or more desirable alternatives or choices.					
9. I have experienced conflicts which were produced by two or more undesirable alternatives or choices.					
10. I have experienced conflicts which were produced when a goal had both positive and negative alternatives.					
11. I experienced pressure as a result of competition (on grades, work, relationships with spouse and/ or friends).					

12. I experienced pressure due to deadlines (paper due, payments to be made, etc.).					
13. I experienced pressure due to an overload (attempting too many things at one time).					
14. I experienced pressure due to interpersonal relationships (family and/ or friends, expectations, work responsibilities).					
15. I have experienced rapid unpleasant changes.					
16. I have experienced too many changes occurring at the same time.					
17. I have experienced changes which disrupted my life and/ or goals.					
18. I like to compete and win.					
19. I like to be noticed and be loved by all.					
20. I worry a lot about everything and everybody					
21. I have a tendency to procrastinate (put off things that have to be done).					
22. I feel I must find a perfect solution to the problems I undertake.					
23. I worry and get anxious about taking tests.					

**Section C: Major Causes of Stress Experienced by Students**

Please indicate the extent to which the following are causes of source for you using the scale below:

**1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree**

Item	1	2	3	4
<b>Academic-Related</b>				
1. High academic workload				
2. Dissatisfaction with lectures/face-to-face				
3. High frequency of examinations				
4. Poor performance in examinations				
5. Lack of learning materials/resources				
6. Difficulty reading and understanding modules				
<b>Psychosocial</b>				
7. Inability to manage time				
8. Inability to concentrate during lecture				
9. Anxiety about performance in exams				
10. High parental expectations				
11. Worries about future				
12. Loneliness				
13. Financial problems				
14. Family/marriage problems				
15. Difficulty relating to members of the opposite sex				
16. Lack of time for relaxation				
<b>Health-related</b>				
17. Lack of healthy diet/irregular eating habit				
18. Sleep problems				
19. Illness/ health problems				
20. Problems with lectures during face-to-face				

**Section D: Impact of Stress on the Academic Performance of Students**

Please indicate the extent to which the following are true for you using the scale below:

**1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree**

Item	1	2	3	4
1. Stress decreases concentration to study				
2. Stress decreases level of confidence in academic work				
3. Stress increases the likelihood of making mistakes during examinations				
4. Stress affects decision making ability during studies				
5. Stress makes you too tired to study				
6. Stress reduces retentive ability				
7. Stress decreases ability to remember what has been studied				
8. Stress reduces the desire to study				





### Section E: Impact of Stress on the Health of Students

Please indicate the extent to which the following are true for you using the scale below:

**1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree**

Item	1	2	3	4
1. Stress decreases sleep quality				
2. Stress decreases energy level and causes constant fatigue				
3. Stress causes headaches and body aches				
4. Stress make you irritable and angry				
5. Stress can cause heart conditions				
6. Stress makes you emotionally withdrawn				
7. Stress can lead to constant anxiety				
8. Stress can lead to depression				

### Section F: Coping Mechanisms Adopted to Deal with Stress

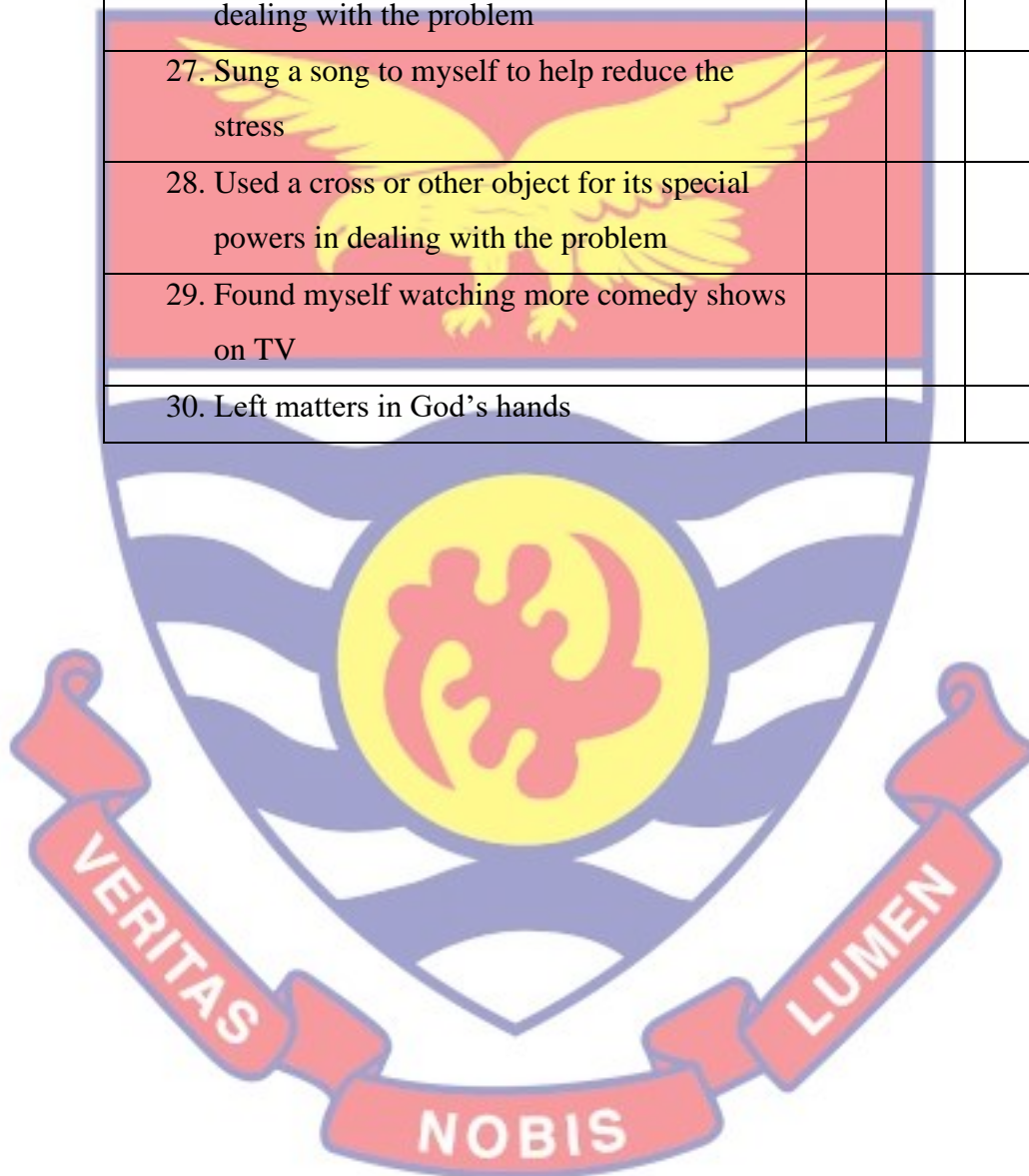
Please indicate how the statements apply to you using the scale below:

**0 = does not apply or did not use, 1 = used a little, 2 = used a lot, 3 = used a great deal.**

Statement	0	1	2	3
1. Prayed that things would work themselves out				
2. Got a group of family or friends together to help with the problem				
3. Remembered what a parent (or other relative) once said about dealing with these kinds of situations				
4. Tried to forget about the situation				
5. Shared my feelings with a friend or relative				
6. Went to church (or other religious meeting)				

to get help from the group				
7. Thought of all the struggles Black people have had to endure and this gave me strength to deal with the situation				
8. To keep me from thinking about the situation I found other things to keep me busy				
9. Sought advice about how to handle the situation from an older person in my family or community				
10. Read a scripture from the Bible (or similar book) for comfort and/or guidance				
11. Asked for suggestions on how to deal with the situation during a meeting of my organization or club				
12. Tried to convince myself that it wasn't that bad				
13. Asked someone to pray for me				
14. Spent more time than usual doing group activities				
15. Hoped that things would get better with time				
16. Read passage from a daily meditation book				
17. Spent more time than usual doing things with friends and family				
18. Tried to remove myself from the situation				
19. Sought out people I thought would make me laugh				
20. Got dressed up in my best clothing				
21. Attended a social event (dance, party, movie) to reduce stress caused by the situation				
22. Asked for blessings from a spiritual or religious person				

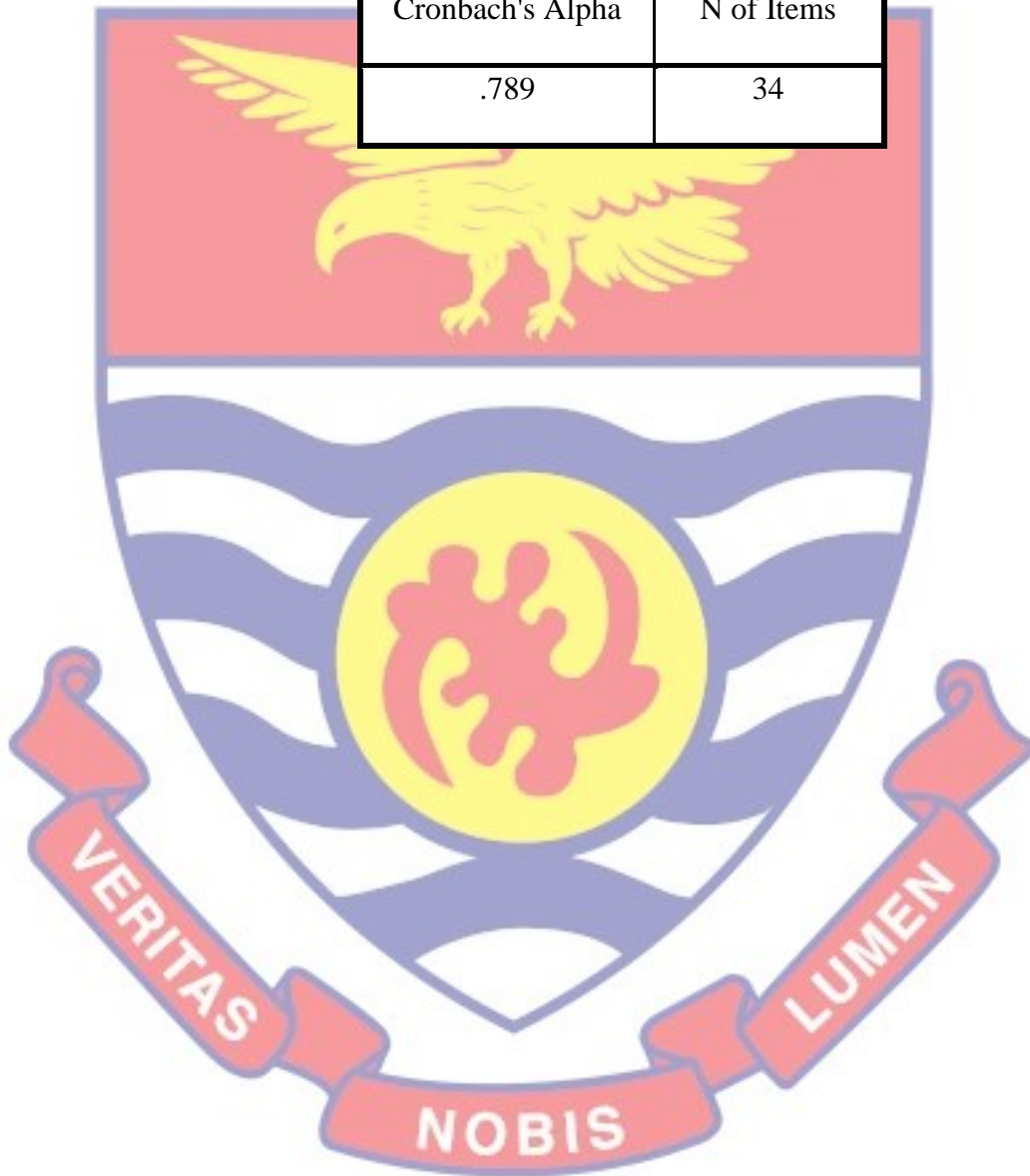
23. Helped others with their problems				
24. Lit a candle for strength or guidance in dealing with the problem				
25. Sought emotional support from family and friends				
26. Burned incense for strength or guidance in dealing with the problem				
27. Sung a song to myself to help reduce the stress				
28. Used a cross or other object for its special powers in dealing with the problem				
29. Found myself watching more comedy shows on TV				
30. Left matters in God's hands				



**APPENDIX B**  
**RELIABILITY OUTPUT**

Reliability Statistics

Cronbach's Alpha	N of Items
.789	34



APPENDIX C

INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST  
COLLEGE OF EDUCATION STUDIES  
FACULTY OF EDUCATIONAL FOUNDATIONS  
**DEPARTMENT OF GUIDANCE AND COUNSELLING**

Telephone: 0322091854  
Email: [dgc@ucc.edu.gh](mailto:dgc@ucc.edu.gh)

UNIVERSITY POST OFFICE  
CAPE COAST, GHANA

Our Ref: DGC/L2/Vol.11/130  
Your Ref:



29<sup>th</sup> September, 2020

TO WHOM IT MAY CONCERN

LETTER OF INTRODUCTION

We introduce to you, Joseph Adu a student pursuing an M.Phil Programme in Guidance and Counselling at the Department of Guidance and Counselling of the University of Cape Coast. As a requirement, he is to submit a Thesis on the topic: *"Impact of Stress on Academic Performance and Health of Students in the Colleges of Education in Ghana"*. We are by this letter affirming that the information he will obtain from your Institution will be solely used for academic purposes.

We would be most grateful if you could provide him the necessary assistance.

Thank you.

A handwritten signature in black ink, appearing to read 'Dr. Stephen Doh Fia'.

Dr Stephen Doh Fia  
HEAD OF DEPARTMENT

## APPENDIX D

### ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST  
COLLEGE OF EDUCATION STUDIES  
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE  
CAPE COAST, GHANA



Our Ref: CES-ERB/ucc-edu/15/21-45  
Your Ref: .....

Date: 15th April, 2021

Dear Sir/Madam,

#### ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

Chairman, CES-ERB  
Prof. J. A. Omotosho  
[jomotosho@ucc.edu.gh](mailto:jomotosho@ucc.edu.gh)  
0243784739

Vice-Chairman, CES-ERB  
Prof. K. Edjah  
[kedjah@ucc.edu.gh](mailto:kedjah@ucc.edu.gh)  
0244742357

Secretary, CES-ERB  
Prof. Linda Dzama Forde  
[lforde@ucc.edu.gh](mailto:lforde@ucc.edu.gh)  
0244786680

The bearer, Adu Joseph, Reg. No. 22/60/19/003 is an M.Phil. / ~~Ph.D.~~ student in the Department of Guidance and Counselling in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He / ~~She~~ wishes to undertake a research study on the topic:

Impact of stress on the academic performance and health of students in the Colleges of Education in Ghana.

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/~~her~~ proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/~~her~~ study. The ERB would be grateful if you would give him/~~her~~ the necessary assistance to facilitate the conduct of the said research.

Thank you.  
Yours faithfully,

Prof. Linda Dzama Forde  
(Secretary, CES-ERB)