SPORTS STRESSORS AND ACADEMIC PERFORMANCE OF STUDENT-ATHLETES IN SELECTED COLLEGES OF EDUCATION IN GHANA

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DECLARATION

I declare that this thesis is my original work and has not been presented in any other university/institution for consideration of any certification. This thesis has been complemented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited using current APA system and in accordance with anti-plagiarism regulations.

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DEDICATION

This work is dedicated to my beloved wife and children

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
ASHBA	Ashanti, Bono, Bono East and Ahafo
APR	Academic Progress Rate
CENTWEST	Central, Western and Western North
CoE	Colleges of Education
CHAMPS	Challenging Athletic Minds for Personal Success
COESA	Colleges of Education Sports Association
COR	Conservation of Resources
GPA	Grade Point Average

MBST	Molecular Biophysical Stimulation Therapy
NCAA	National Collegiate Athletic Association
SAT	Scholastic Aptitude Test
SPSS	Statistical Package of Social Sciences

ABSTRACT

Student-athletes in Ghana Colleges of Education are expected to manage a variety of stressors related to academic, social and financial commitments. The student-athletes devote a substantial amount of the scarce time to improve sporting abilities. The purpose of this study was to investigate the effects of sports stressors and academic performance of student-athletes in selected Colleges of Education in Ghana. The five (5) objectives of this study were to: (a) determine the possibilities of a demographic difference in stress-coping among student-athletes in Colleges of Education in Ghana; (b) determine sports stressors that are linked to the academic performance of student-athletes in Colleges of Education; (c) find out if stress from sport affects the academic performance of student-athletes in Colleges of Education in Ghana; (d) compare the grade point average of student-athletes in the year of competitive sports and the year of no competitive sports in the Colleges of Education in Ghana. (e) To propose an intellectual assessment model for Colleges of Education in Ghana. The study adopted a cross-sectional survey design, in which both quantitative and qualitative data were collected. Simple random sampling was used to select student-athletes while purposive sampling was used to select tutors. The target population for this study was 12 lecturers and

768 student-athletes in six (6) Ghana Colleges of Education. The total sample size for the study was 335, 12 lecturers and 323 student-athletes. The instruments for data collection were a questionnaire, an interview guide and document analysis. Descriptive and inferential statistical analyses were carried out using Statistical Package for Social Sciences (SPSS version 21). Descriptive statistics summarized, organized and described the responses for each objective through the use of means, standard deviations, frequencies, and percentages. Inferential statistics such as ANOVA and Point biserial were used to test the formulated null hypotheses. All hypotheses were tested at $p<0.05$ alpha level of significance. The study found that competitive sports stressors have a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana. The study also revealed that competitive sports stress has a statistically significant influence on the academic performance of student-athletes, especially the females. This study therefore, recommended that female student-athletes be given scholarships to motivate and enhance other female students' participation in competitive sports. On the basis of the findings, it is recommended that Colleges of Education in Ghana should have stress management facilities to address the link between stress and the academic performance of student-athletes. The Colleges of Education should organise extra tutorials for student-athletes after competitive sports participation.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This study investigated the effects of sports stressors on the academic performance of student-athletes in selected Colleges of Education in Ghana. The College years are a period of time a young adult experiences a significant amount of change and faces a variety of challenges. Academic performance, social demands, adjusting to life away from home, and financial challenges are just a few of the burdens College students must confront (Aquilina, 2013). In addition to these challenges, student-athletes in Colleges of Education in Ghana are also required to spend a substantial amount of time participating in activities related to their sports, such as attending practices and training sessions, team meetings, travelling, and competitions (López de Subijana et al., 2015; Davis et al., 2019; Hyatt and Kavazis, 2019). These commitments, in addition to the normal stress associated with college life, may increase a student-athlete's risk of experiencing both physical and mental issues (Li et al., 2017; Moreland et al., 2018) that may affect their overall health and wellness.

For these reasons, it is essential for college management and coaches to understand the types of stressors student-athletes in Colleges of Education in Ghana face in order to help them manage the potentially deleterious effects they may have on their academic performance. There will also be the need to understand and learn how to manage athletes' stress, it is important that both mental and emotional stressors are also considered in programming, it is therefore

imperative that management of colleges of education and coaches are aware of the multitude of stressors student-athletes encounter, in order to incorporate illness and injury risk management education into their training programs (Radcliffe et al., 2015; Ivarsson et al., 2017).

The purpose of this study was to investigate the effects of sports stressors and academic performance to provide college management and sports professionals with a foundational understanding of the types of stressors student-athletes experience, and how these stressors impact mental health and athletic performance. Suggestions for assisting athletes with developing effective coping strategies to reduce potential physiological and psychological impacts of stress was also be provided. This section provides the background to the study, the problem of the study, the purpose of the study, specific objectives of the study, the hypotheses, delimitation, limitations and significance of the study. The last section in this chapter includes the theoretical framework, conceptual framework, and operational definitions of terms.

1.2 Background to the Study

Sports activities in Colleges of Education in Ghana are designed to help teacher trainees to develop esteem for their own bodies and others. Another purpose of sports participation in the Colleges of Education CoE in Ghana is to contributes the unified growth of mind and body, absolutely enhances self-confidence and

improves social and cognitive development and academic attainment (The Colleges of Education Sports Association Biannual Report, 2018).

Sports participation in College of Education offers opportunities to meet and communicate with others, to take different social roles, to learn particular social skills such as tolerance and respect for others, to adjust to team cooperation and cohesion and to give experience of emotions that are not available in the rest of life (The Colleges of Education Sports Association Biannual Report, 2018). In Ghana, Colleges of Education, sports form an integral part of the various activities carried out in all schools at all levels in the academic year. Colleges of Education are expected to participate in sporting competitions organized across the country. For instance, the inclusion of interhall and intercollegiate athletic competitions and sports competitions on the Colleges of Education academic calendar shows that the management of Colleges of Education also believes sports are beneficial to students. Every two years, athletics and games competitions are organized for students in Colleges of Education in collaboration with the National Sports Authority under the Ministry of Youth and Sports.

Stress can be described as a state of physical and psychological activation in response to external demands that exceed one's ability to cope and requires a person to adapt or change behaviour. As such, both cognitive or environmental events that trigger stress are called stressors (Statler and DuBois, 2016). Stressors can be acute or chronic depending on the duration of activation. Acute stressors

may be defined as a stressful situation that occurs suddenly and results in physiological arousal (e.g., increase in hormonal levels, blood flow, cardiac output, blood sugar levels, pupil and airway dilation, etc.) (Selye, 1976). Once the situation is normalized, a cascade of hormonal reactions occurs to help the body return to a resting state (i.e., homeostasis). However, when acute stressors become chronic in nature, they may increase an individual's risk of developing anxiety, depression, or metabolic disorders (Selye, 1976).

Cumulative stress is correlated with an increased susceptibility to illness and injury (Szivak and Kraemer, 2015; Mann et al., 2016; Hamlin et al., 2019). Further, the impact of stress is individualistic and subjective by nature (Ivarsson et al., 2017) and the manner in which athletes respond to a situational or environmental stressor, is often determined by an individual's perception of the event (Ivarsson et al., 2017). The athlete's perception can either be positive, eustress or negative, distress. Even though they both cause physiological arousal, eustress also generates positive mental energy whereas distress generates anxiety (Statler and DuBois, 2016). It is therefore essential that an athlete has the tools and ability to cope with these stressors in order to have the capacity to manage both acute and chronic stress. It is important to understand the types of stressors College of Education student-athletes are confronted with and how these stressors impact an athlete's performance, both in athletics and in academic work. Stress signifies the quantum of physical, mental and emotional strain or tension impacting on a person (Solanky et al., 2012). It is defined as a disorder that

manifests naturally in symptoms of mental and physical tension or strain such as down heartedness or hypertension, an upshot of reaction to a state in which a person feels threatened or pressured or both (Thangaraj & D'Souza 2014).

Stress is separated into eustress and distress. Stress, which improves one's physical or mental functioning is called eustress. On the other hand, persistent stress that is not resolved through coping or adjustment and may lead to nervousness or withdrawal behaviour is known as distress. It is possible that student-athletes experience stress during their academic years, just like the medical students indicated by Abdulghani et al., (2011). The stress experienced by student-athletes during their academic years could relate to issues that include financial matters, personal well-being, public and difficulties. Evidence indicates that, unlike levels 200, 300 and 400 students, level 100 college of education student athlete's stress is related more to theoretical factors than public factors. The sources reported as stressful for student-athletes in Colleges of Education in Ghana include; quizzes and examinations, lack of time for revision, poor grades, and difficulty in understanding content (Yusoff et al., 2010).

When Melaku et.al. (2015) conducted their study, they established that long-lasting and continuous exposure to stressful conditions leads to emotional, physical and mental disturbance among medical students, persistent stress results in decline of confidence in students. In turn, this leads to difficulty in managing situations, sleep disorders, decreased concentration and abnormal appetite which

may eventually affect the student's academic achievement. On the other hand, stress could be eustress boosting academic performance. This would depend on the approach adopted by a student in coping with stress in his or her environment (Maleku et al., 2015).

Thawablie & Qaisy (2012) proposed three approaches to studying stress. The first approach considers stress as a stimulus from the external environment that pressures an individuals' physical and mental well-being. In their second approach, stress is treated as a response to the external environment as shown through a person's physiological, physical, emotional and cognitive reactions to stress. The third approach combines the first and second approaches perceives stress as both, a consequence of the stress and also as the cause of both mental and physical challenges in a person. Thus, suggesting that student-athletes either from different colleges or the same college are not likely to report similar stress experiences because of the differences in their cognitive appraisal of stressors. Most students join the College system at a time when they are not yet mature enough to manage the challenges that confront them on campus. They have to work in an intricate mix of a physical, psychosocial and sociocultural environment with different degrees of challenges from high school. For many colleges of education students, being in college represents a time of change that could lead to serious cognitive and psychosocial challenges. As suggested by Eisenberg et. al., (2013) and (Thawabieh & Qaisy 2012), these challenges may be perceived as

stressors which have the potential for inconsistent negative physical, cognitive and psychosocial consequences.

When Turner et al., (2015) conducted their study, they linked students' poor cognitive and psychological function to the negative effect of stress. Negative consequences of the stress experienced may be mediated by other factors. These factors may be both, intrinsic and extrinsic, and thus act as confounding variables in stress experiences. These characteristics may also act as stress risk factors, thereby predisposing the student-athlete to stress and its effects. External factors such as the study level of students and the type of course in which a student-athlete is registered, may constitute stress risk factors characterized by stressors such as course assignments and examination (Sohail, 2013). Internal factors such as age, gender and personality may also act as stress risk factors in the student-athlete's stress experience. The number of years spent in college is an opportunity for students to grow, learn, and be comfortable in their own way. Sun et al., (2011) perceive the possibility of tertiary students experiencing some changes in life including stress which may have harmful effect on the students' personal life, particularly emotional well-being. This may result in unhealthy behaviour among student-athletes who are most likely to experience stress.

According to Khanam & Syed (2017), the findings suggested that students, who make an attempt to train their minds together with their bodies, are more likely to register greater improvement generally and academically. The kinds of stressors

encountered by student-athletes include time management, relationship with coaches, over-training, camping conditions, traveling for competition, and missing scheduled classes (Davoren & Hwang, 2014). Such stressors may severely affect the athlete's mental health besides their general well-being. Coping with stress is considered an essential ingredient for excellent academic performance among college student-athletes. According to (Hwang & Choi, 2016) stress management helps to break the hold of stress on the academic performance of students. The ultimate goal of stress management is a balanced life, with time for work, bonding, rest, amusement and the resilience to hold up under pressure and meet challenges head-on.

Lack of stress coping skills of a student can act as an obstacle to excellence in the academic performance of tertiary student-athletes (Oyelade et al., 2010). Managing stress is a vital component for students on campus since participation in active sports can impact negatively on learning. Coping with stress is essential to the academic success of student-athletes in colleges and universities (Wolters & Hussain, 2015). According to Mohammad (2011), stress management is one of the factors that affects an individual student-athlete's academic performance in most tertiary institutions. According to Khan (2017), stress management plays a dynamic role in refining the academic performance of student-athletes.

1.3 Statement of the Problem

Ideally, student-athletes should be able to take part in sports competitions as well as academic activities without much difficulty (Apaak & Sarpong, 2015). The role of stress emanating from participation in sports on academic performance has become a common topic of discussion among Ghanaian Colleges of Education of student-athletes in Ghana Colleges of Education. There have been contentions that the stress student-athletes encounter before, during and after competing in inter-hall, inter-collegiate and inter-zone colleges of education games and sports festival is a major cause of poor academic performance among trainee teachers.

The Colleges of Education Sports Association (COESA) in its 2018 biannual report affirmed receiving parents' complaints that participation in sports competitions remained the student-athlete' biggest stressor. The most common questions seldom addressed in literature are: (i) To what extent does stress from sports participation influence academic performance among student-athletes? (ii). Do student-athletes' academic performances reveal a gender bias in the coping strategies of sports-related stress? There are multiple factors which influence stress among student-athletes (Khan et al, 2013). However, the influence of the stress emanating from sports participation on the academic performance of student-athletes in Ghanaian Colleges of Education has remained relatively unexplored. Thus, exposing a huge information-gap in knowledge. This study sought to bridge this gap. Stress can influence academic performance of student-athletes in colleges of education either negatively or positively, hence the need for

this study to reveal the scope of the influence; and to determine the best strategies to manage negative influences and maintain positive influences among student-athletes in the Colleges of Education in Ghana

1.4 Purpose of the Study

The purpose of this study was to investigate how sports stressors affect the academic performance of student-athletes in Colleges of Education in Ghana.

1.5 Research Objectives

The study was guided by the following specific objectives:

i. To determine the possibility of a demographic difference in stress coping among student-athletes in Colleges of Education in Ghana.
ii. To determine sports stressors that are linked to the academic performance of student-athletes in Colleges of Education.
iii. To find out if stress from sport affect the academic performance of student-athletes in Colleges of Education in Ghana.
iv. To compare the grade point average of student-athletes in the semester of competitive sports and the semester of no competitive sports in the Colleges of Education in Ghana.
v. To propose an intellectual assessment model for Colleges of Education in Ghana

1.6 Hypotheses

The study tested the following null hypotheses:

1. $H_0$1. Demographic characteristics have no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
    i. *$H_0$1.1:* Sex has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
    ii. *$H_0$1.2:* Age has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
    iii. *$H_0$1.3*: Level has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
2. $H_0$2. Competitive sports stressors have no statistically significant relationship with the academic performance of student-athletes in Colleges of Education in Ghana.
    i. *$H_0$2.1:* The stress of injury and illness from competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.
    ii. *$H_0$2.2*: Camping during competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

iii. *$H_0$2.3:* Long journey traveling to competitive sports hosting places has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

iv. *$H_0$2.4:* Pressure of competitive sports participation has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

v. *$H_0$2.5:* Training for competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

3. $H_0$3. Competitive sports stress have no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

   i. *$H_0$3.1* Good stress management has no statistically significant influence on the academic performance of student-athletes.

   ii. *$H_0$3.2* Stress from competitive sports has no statistically significant influence on student-athletes edgy and worried during learning.

4. $H_0$4. There will be a statistically significant difference in the grade point average of student-athletes in the semester of no competitive sports as compared to the semester of competitive sports in the Colleges of Education in Ghana.

1.7 Significance of the Study

The study may have the following significance:

1. The study would provide Colleges of Education key stakeholders and other readers with a deeper comprehension of the demographic difference in stress coping among student-athletes in Colleges of Education in Ghana. Key stakeholders who would gain a deeper understanding from this study include student-athletes, college management, faculty, coaches and officials. Other key stakeholders are the Ghana Tertiary Education Commission (GTEC) and the Ministry of Education.
2. The Colleges of Education operate under the Ministry of Education through the Ghana Tertiary Education Commission as gate keepers, the findings from this study may inform policy at the Ministry of Education and the colleges about which areas of educational curriculum should receive what amount of inputs and how to make maximum use of the inputs. New policy direction may emanate to focus on enrolment, motivation, faculty and funding to student-athletes' studies inter alia.
3. The study would also provide significant literature on stressors linked to the academic performance of student-athletes in Colleges of Education. Information on the influence of sporting stress on the academic performance of student-athletes in Colleges of Education in Ghana has been provided in elaborate detail form. This empirical evidence would aid future researchers about the phenomenon.

4. Finally, this study findings would help stakeholders in Colleges of Education to effectively manage sports stress among student-athletes.

1.8 Scope of the Study

1. The study was delimited to student-athletes in Colleges of Education in Ghana from Ahafo, Ashanti, Bono, Bono East, Central, Oti, Volta, Western, Western North regions only. The study focused on student-athletes in six (6) Colleges of Education among the 36 (thirty-six) colleges of education located in the above regions in Ghana only. Findings are therefore confined to student-athletes in Colleges of Education but not non-student-athletes.

2. This study covered the demographic difference in stress coping among student-athletes, sports stressors linked to the academic performance of student-athletes. The study was also delimited to how stress from sports affects the academic performance of student-athlete, the grade point average of student-athletes in the semester of competitive sports and the semester of no competitive sports and ways of managing sports stress among student-athletes in Colleges of Education in Ghana. The findings were therefore, limited to the above.

1.8 Limitations of the Study

1. This study relied on responses that student-athlete respondents in Colleges of Education in three (3) of the five (5) zones provided to determine the extent to which sports stressors influence academic performance. Extreme views may affect

the outcome of the study. Data sources were therefore triangulated to minimize the effect of extreme views.

2. The responding students-athletes may fear that should their responses revealed the reality of what might be happening in their lives on campus, faculty may not be happy. The researcher managed this situation by giving respondents assurance that their identity would not be revealed and their responses would be kept confidential.

3. The findings of the study were limited to Colleges of Education; and therefore, the findings cannot be generalised to other tertiary institutions in Ghana.

1.9 Assumption of the Study

The study was based on the assumption that:

i. Sport stress have influence on the academic performance of student-athletes in Colleges of Education in Ghana.

ii. The GPA of student-athletes in the year of competitive sports are lower than the year of no competitive sports in the Colleges of Education in Ghana.

1.10 Theoretical Framework

This study employed two theories relevant to the study. These were: The Involvement Theory and Resource Theory of Stress.

Astin's (1984) Involvement Theory was adopted for this study. The theory defines the quantity of physical, mental and emotional energy that students dedicate to any education programme. The basic principle of Astin's involvement theory is that, educational experience ought to be considered in a wide sense that encompasses both classroom learning for academic performance and out-of-class experiences for physical and psychological development. The Theory provides a theoretical basis for investigating student involvement in the education experience. Active participation in academic and other co-curricular activities and especially competitive sports is highly related to student learning and their physical and mental development. Astin (1984) demonstrated that Involvement Theory is predicted on five basic assumptions:

i. Involvement refers to the investment of physical and psychological energy in various objects.
ii. Involvement occurs along a continuum.
iii. Involvement has both quantitative and qualitative features;
iv. The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program
v. The success of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement.

This theory presents a model for presenting student involvement in co-curricular activities, emphasizing the concepts of commitment and time taken in these

activities. Commitment refers to the qualitative or content component of involvement, and time refers to the quantitative component. Both quality and quantity involvement are important as involvement is a major factor in keeping students in school. This shows that students need enough time to actively participate in sports activities. Learning and development are primarily factors of the degree of effort and energy committed by students to a particular learning experience. In his view, involvement is an active concept that requires the student to invest time and energy. Astin (1985) stated that students are mostly interested in the "existential benefits" of the school experience, meaning, among other things, the subjective satisfaction associated with co-curricular and academic involvement, and recreational activities.

Students who participate in sports and other co-curricular activities are likely to be satisfied with school life and hence promote school connectedness. This premise supports the significance of sports and co-curricular activities involvement in schools in helping students develop both physically and psychologically. Astin's theory of 1984 serves as a connector between pedagogical theory and student outcomes by providing a link between the variables emphasized in these theories and the learning outcomes desired by the student and the teacher. He states that any program, whether academic or co-curricular, should motivate students to commit both time and effort to it. Those Programs that motivate students to make such a commitment are the most successful ones. The focus is on the student and their reaction to the program, rather than just on the program itself. Even a well-

funded, sophisticated, co-curricular program will only meet its stated objectives if students are motivated to commit the time and effort necessary for success. His Theory further suggests that students need to be active and committed participants in the learning process. This can only be achieved through active participation in co-curricular activities and especially sports

The Resource Theory of Stress that has direct relevance to the study was also adopted. This theory dealt with the specific relationship between environmental demands known as stressors and physical, psychological, emotional and cognitive reactions known as stress. The theory spelt out specific intervening or mediating variables that might determine the relationship between the cause and effect of stress. It should, however, be noted that Resource theories of stress mainly focused on resources that ensure well-being despite evident sources of stress. Self-efficacy and optimism play the role of protection as well as hardiness and a sense of coherence. Hardiness involves the aspects: of internal control, commitment, and a sense of challenge as opposed to a threat. In the same way, coherence entails a belief in the meaningfulness and predictability of the world.

1.11 Conceptual Framework

The conceptual framework is a diagram illustrating the relationship between the predictor variable and its indicators and the criterion variable and its indicators. This is presented in figure 1.1. The conceptual framework led us to the understanding and analysis of the relationship between stressors and academic performance of student-athletes in colleges of Education in Ghana. the

Involvement Theory and The Resource Theory of Stress was used to gain an understanding of and interpret certain occurrences in detail to develop the conceptual framework. This conceptual framework enabled the researcher to examine and analyse the influences of stress on the academic performance of student-athletes in Colleges of Education in Ghana.

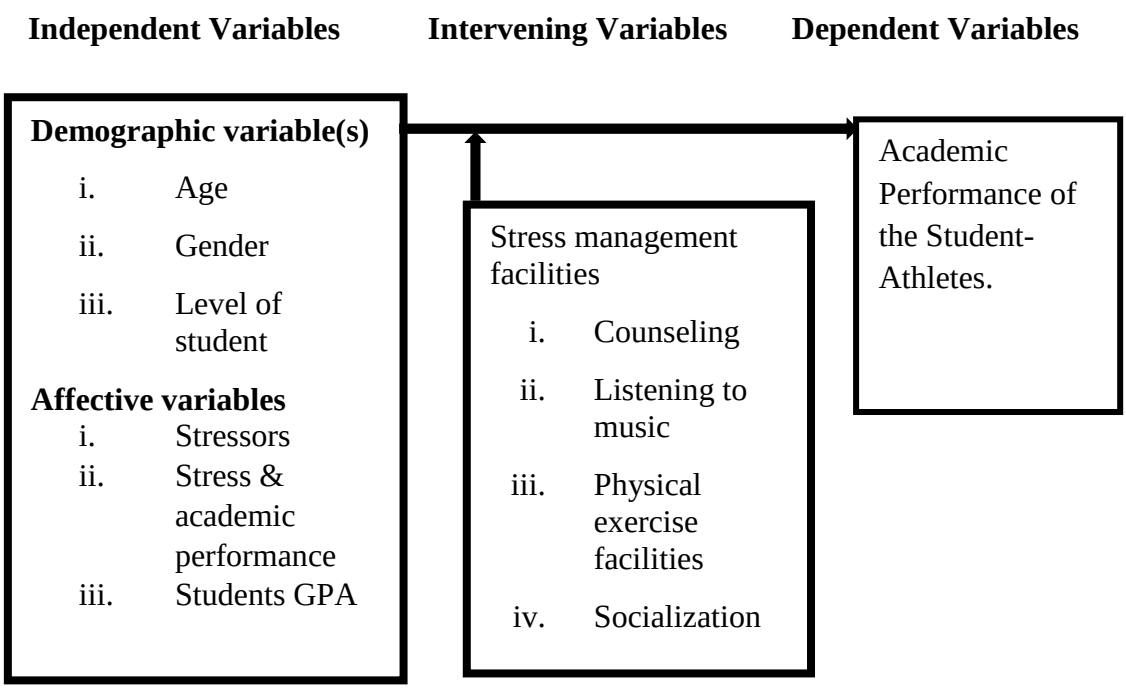


Figure 1. 1: Conceptual Framework

Source: The Researcher (2023)

This conceptual framework was designed to provide the relationship between the independent and dependent variables as they relate to the study. The independent variables were the demographic information of student-athletes (age, gender, level of student – 100, 200 & 300) and the affective variables: stress management skills and the stressors (training, camping, travelling and competition, stress & academic

performance, students GPA and stress management). It is conceptualized that stress management skills will depend on the result of stressors in the student-athlete's environment. The dependent variable was the student athlete's academic performance. The conceptual framework indicated that student-athletes may be exposed to stressors such as training, the training camp, travelling and competition. These factors, depending on the student's perception may cause stress; which, in turn, could evoke emotional, psychological and physiological responses that influence academic performance.

Poor academic performance among student-athletes could be overcome through appropriate coping or stress management strategies. From a research standpoint, anecdotal observation indicates that most Ghana Colleges of Education believe that stress influences academic performance. Establishing the correct position concerning this issue demands further scrutiny If one is to acknowledge this belief as being true, then any given stressor will have increased negative influence on student-athletes. Consequently, there is also need to determine to what extent such stress impacts academic performance negatively.

1.12 Operational Definition of Terms

Academic performance: The overall performance in each year culminating in a Grade Point Average (GPA).

Acute stress: Stress due to short-term challenging situations such as sitting for an examination.

Chronic stress: Stress due to the persistent and inescapable stressful conditions such as academic load in a semester. This type of stress depends on the length of time a person has been exposed to stressors and the seriousness of the stressors.

Colleges of Education: Institutions with the sole responsibility of preparing teachers for the basic schools in Ghana.

Competitive Stress: Stress emanating from participation in any form of physical activity such as participation in sports.

Coping: The management of Physical, psychological and cognitive stress.

Distress: General mental or physical suffering caused by worry or pain from situations such as extreme sadness.

Eustress: Positive stress that makes the person feel good and excited about engaging in a certain activity like sitting for examination when an individual is confident that he or she is well prepared for it.

Locus of control: The tendency to be influenced by internal or external factors in managing one's challenges.

Stress: It is a physical or psychological state of strain in sports, games and athletic activities

Stress management:	Refers to measures and strategies employed by both, the learning institutions and the tutors to reduce or cope with the day-to-day pressures and tension emanating from campus activities.
Stressor:	Any agent that causes stress to a student-athletes
Sports Stressor:	Sporting activities that cause stress
Student-athletes:	College students who represent the college in external sports competitions.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviews relevant related literature related to the following sub-headings: concepts of stress, theories of stress, strategies for coping with stress, physical activity and stress coping style, sports stressors linked to the academic performance of student-athletes in Colleges of Education, the influence of sports stress on the academic performance of student-athletes in Colleges of Education in Ghana.

2.2 Demographic Differences in Stress Coping Among Student-Athletes in Colleges of Education in Ghana.

Kaiseler et al. (2012) investigated gender differences in stress appraisal and coping mechanisms among a sample of male and female soccer players. The respondents rated stressor intensity and perceived control and completed the Modified-COPE (MCOPE) in response to 3 different experiment-defined stress scenarios. The results showed that there were gender differences in coping after controlling for stress intensity and control were found across the three scenarios. Results suggest that males and females differ in their preference for the use of certain coping strategies and that gender is a moderator in the stress appraisal and coping process. From these studies, a large number of sources of stress have been identified and several appear to be common across sports suggesting that there could be a core group of stressors experienced by all athletes (Mckay et al., 2008).

Selected demographic variables and sport-specific factors have been associated with stress and coping strategies.

With regard to this, a study by Rogowska and Kusnierz (2012) determined the extent to which gender, age, skill level, and years of practice serve as predictors of coping styles in Judo. Results from 98 judo competitors (Females =47 and 51 males aged 13-21 years) revealed that gender, age and judo practice, all served as predictors for approach-avoidance or behavioral coping styles. Similarly, Hoar et al. (2010) examined gender differences in the types of coping strategies that adolescent athletes used to manage sport-related interpersonal stress.

Adolescent athletes (n=524) completed measures of stress appraisal and coping strategy use in response to a self-selected interpersonal stress source in the port. Results found that gender differences in selected coping strategies partially supported the situational gender coping hypothesis. From the literature reviewed, it is apparent that student-athletes experience a variety of sources of stress and employ diverse coping strategies. Therefore, the purpose of this study was to determine the sources of stress and coping strategies employed by Kenyan university athletes. The study predicted that the sources of stress and coping will be mediated by the athletes' age, gender, and level of study.

2.3 Sports Stressors Linked to Academic Performance of Student-Athletes in Colleges of Education

Participation in sport and education is highly stressful (Cosh & Tully, 2015) and likely contribute to academic sacrifices. College student-athletes, in general, will engage in higher levels of physical activity on a weekly basis than their non-student-athlete counterparts (Clemente et al., 2016). Levels of physical activity appear to be positively related to a positive approach, which eventually lowers stress levels (Azizi, 2011). Physical activity encourages the release of endorphins that help to the negative perception of stress. This reduction in the negative perception of stress causes the student-athlete to look at a stressor in a more manageable way than he or she would have done before engaging in physical activity. Ultimately, this will have a positive impact on his or her academic performance.

The nature of the training environment, such as performance that emphasize interpersonal competitions has also been identified as a potential stressor (Cosh & Tully, 2015). Olympic athletes frequently report ineffectual support networks and the effects of travel as sources of stress (Cosh & Tully, 2015). Specifically, student-athletes have reported encountering a number of coaching-related stressors. Among French school students, it was shown that coaching style was related to athlete stress and burnout (Isoard-Gautheur et.al. 2012). Likewise, a study examining collegiate coaching, highlighted athletes' reports that coaching style, such as perceived poor teaching or being uncaring, was associated with their

coping and motivation for sport (Gearity & Murray, 2011). It was also argued that Coaches contribute to the stress of sport participation by fostering feelings of incompetence or lack of control among student athletes.

The transition to tertiary education and college-level sport has also been reported to be a source of stress and frustration for student athletes (Cosh & Tully, 2015). A study exploring the specific stressors arising from integration faced by student athletes competing in an Australian professional sports league, reported issues of time-management, fatigue due to lack of sleep, and schedule clashes were stress contributors. (Cosh & Tully, 2015). Schedule clashes between training programs and university timetables were reported to be a key stressor. Athletes reported having difficulty coordinating their academic university timetables with their training schedules. They often resulted in clashes, which forced athletes to prioritize between sport and academic requirements. Such prioritization decisions were deemed a central source of stress. Students reported facing possible failure for not attending courses. The students were concerned that the missed learning opportunities because of academic class absenteeism would have a detrimental impact on their grades (Cosh & Tully, 2015). A perceived Stressor among student-athletes is a negative feeling that develops from the athlete's inability to adapt to demands placed on him/her by the environment (Lazarus & Folkman, 1984). Attending college creates a unique set of stressors for students. However, being a SA comes with an additional set of stressors not experienced by non-athlete students (Wilson & Pritchard, 2005). Over 85% of all SAs reported being

stressed because of missed classes due to travel and having to make-up missed assignments (Humphrey et al., 2000).

Student-athletes also believe that they are treated differently by the academia because of their athletic status (Papanikolaou et al., 2003). Wilson and Pritchard (2005) used questions from Kohn and Macdonald's (1992) Survey of Recent Life Experiences to determine Division I freshman college students' stressors. Though there was no reported increase in stress between SAs and non-athlete students. There were stressors unique to both groups. Student athletes reported being stressed from "having a lot of responsibilities," "not getting enough sleep," and "extracurricular demand." Whereas, non-athletes reported more stress from "financial burdens," "making education decisions," and "being ignored/isolated."

Athletes also deal with the physical stressors of training, competition, and Injury. There is a direct association between injury occurrence and training time (Gabbett et al., 2014; Kay et al., 2017; Kerr et al., 2017). Consequences of training can be illness, injury, and/or decreases in performance (Gabbett et al., 2014). An increase in training is related to an increase in rate of injury (Gabbett et al., 2014), yet training is necessary to improve athletic performance.

The balance between training too much and too little is difficult to achieve and to measure. With injuries being an inevitable result of collegiate sports, it is not surprising that they are a primary source of stress for student-athletes (Madrigal &

Robbins, 2020). Almost half the 570 student athletes with an injury at the time of data collection reported injury as their main stressor (Madrigal & Robbins, 2020). Student-athletes have reported increased stressors based on their participation in both, advanced academics and athletics. Evidence supports the notion that an increase in reported stress levels is correlated to an increase in injury among both student and professional athletes. The stress and athletic injury model developed by Andersen and Williams (1988) II s injury risk. The wide nature of injury risk includes cognitive, physiological, attentional, behavioral, intrapersonal, social, and stress history dimensions that explain two pathways for why stress leads to athletic injury.

The first is a negative cognitive appraisal. This refers to the student-athlete's perception and understanding of an injury. If an athlete is not equipped to manage the demands of his or her environment, stress responses may develop, even if his or her perceived appraisal of the situation does not reflect reality (Andersen & Williams, 1988). The second pathway is physiological and attentional aspects. Stress can cause an increase in Muscle tension that could decrease mobility, and set up potential for injury (Andersen & Williams, 1988). Excess stress can also result in a narrowing of concentration and attention (Li et al., 2017), which may lead to a student-athlete not recognizing potentially risky situations in games or practice that can lead to an injury.

Li et al. (2017) evaluated 958 student-athletes from 2007-2011 to determine the effect of reported preseason anxiety and depressive symptoms on the risk of injury in the prospective season. In the sample, 28.8% reported anxiety symptoms and 21.7% reported depressive symptoms, with 48.5% of those reporting symptoms having both anxiety and depressive symptoms. Student athletes who reported preseason anxiety had significantly higher injury rates than those who did not report anxiety (; Li et al., 2017).

Increased injury rates were found to be associated with increased periods of academic stress in student-athletes (Hamlin et al., 2018; Mann et al., 2015). Specific stressors such as sleep quality, mood, and energy levels have shown correlations with injuries in both student-athlete and professional athletes (Hamlin et al., 2018; Laux et al., 2015). A higher negative life stress showed association with increase in injury rates among collegiate gymnasts. Student-athletes with poor coping skills and a lack of social support are more at risk for injury. Stress can be both a predictor of injury and a cause of injury.

With its ability to significantly impact the life of a student-athlete, it is important that stress be assessed and measured correctly so corrective measure can be taken. There are subjective and objective ways to measure stress. Saw (2015) reviewed both measurement styles of athletes and found subjective and objective measures did not correlate with one another. The subjective measures of training load reflected superior sensitivity regarding athlete well-being (Saw et al., 2015).

Objective measures including but not limited to heart rate, biochemical markers, hormone levels, and urine color and output, were not responsive to acute changes in workload (Saw et al., 2015). Subjective measures, reported by the athletes through various surveys, had a moderate to strong correlation with an acute increase in workload (Saw et al., 2015). If these measures are implemented and student-athletes are compliant in completion, they would provide insight into the impacts of both training and competition on the student-athletes.

The College Student-Athletes' Life Stress Scale (CSALSS) was developed to evaluate sports related stressors along with those that occur to a typical college student (Lu et al., 2012). The CSALSS is a 24-statement survey with a 6-point Likert scale where participants are instructed to rate how often they experience the statement (Lu et al., 2012). The statements are categorized into eight areas where a student-athlete may be experiencing stress: Sports injury, performance demand, coach relationship, training adaptation, interpersonal relationships, romantic relationships, family relationships, and academic requirements.

Each category has a Cronbach's α above .75 except family relationships at .66, however it was deemed acceptable due to its composite reliability being .83 (Lu et al., 2012). When compared to the Athletic Positive State of Mind Scale the CSLASS showed a negative correlation which was expected as an athlete with increased stress would not be expected to have a positive state of mind (Lu et al., 2012). The results of the CSALSS provide specific insight into where a student-

athlete is experiencing the most stress in his or her life. The fact that student-athletes experience stress is general knowledge. However, knowing the aspects of life that are the more stressful for student-athletes as a whole and the individual, allows for specific stress management planning. With stress being so closely intertwined potential cause of athletic injury, developing the most accurate mitigating strategy provides the best chances for decreasing injury risk among student-athletes.

2.4 The Influence of Sports Stress on the Academic Performance of Student-Athletes in Colleges of Education in Ghana.

The effects psychological stress on an athlete's performance (at all ages and levels of competition) has been widely researched and discussed in scientific literature (Hamlin et al., 2019). While physical stressors can play a significant role in how well an athlete is able to compete, psychological stressors can also significantly impact on an athlete's ability to perform. Some of the main stressors, both physical and psychological, for athletes include their performance and the outcomes of competitions (Nicholls et al., 2016).

Similarly, Hamlin et al. (2019) stated that "young athletes experience the highest stress when they perform poorly, make mistakes, and when they perceive pressure from parents, coaches, and teammates" his stress can have a negative effect on an athlete's physical state, increasing the risk of injury, the development of acute illness, and overtraining or burnout (Hamlin et al., 2019). In addition to the

adverse physical effects of stress on an athlete, stress can also create an unhealthy mental state for athletes, increasing the risk for the development of anxiety or depression-related illnesses (Lopes Dos Santos et al., 2020).

A coach's behavior and interactions with athletes can also be an added stressor for an athlete (Nicholls et al., 2016). While those who compete in athletics are subjected to a significant number of stressors, for student-athletes, the number of stressors is greatly increased. According to Hamlin et al. (2019), "Athletes who are also involved in university study are very prone to study-related stressors such as coursework demands, study/life balance, and financial strain. In addition to the stress of practices and competitions (i.e., physical fatigue), students face additional unique stressors such as practice and competitions scheduling conflicts, new coaching and training environments, student-sport identity issues, and negative perceptions from faculty and peers (Parker et al., 2018). The number of individuals who face stress as collegiate student-athletes is larger than one might think. According to the NCAA, approximately five to six percent of the eight million high school scholar-athletes will play collegiate sports.

While this percentage may appear small, it characterizes approximately 400,000 to 500,000 young adults who play college sports (Cross & Fouke, 2019). For many Americans, the mental toll on our student-athletes is a significant concern. According to surveys conducted, "three in four Americans worry that the big business of collegiate athletics clashes with educational values, negatively

affecting the athletes" (Lipka, 2006). This "business model" of college athletics in which student-athletes are recruited and paid to compete to afford higher education is not a minor concern. Many student-athletes have reported feeling pressured to prioritize sports over academics. In many ways, "the current higher education system still largely perceives academics and athletics as polarized, unequal, and separate entities" (Cross & Fouke, 2019).

Many student-athletes have felt pressured to choose athletics over academic performance, even regarding their choice of a major. Factors that influence choice of major for many collegiate athletes include class workload, daily homework, team practice times, and competitions schedules, travelling for athletics, social life, and family (Cross & Fouke, 2019). As student-athletes struggle to juggle the various responsibilities that come with being both a student and an athlete, they report that academic requirements are the most significant source of their stress. However, this is often due not to the academic stress itself, but to the time management that is required to balance academics and athletics (Lopes Dos Santos et al., 2020). Due to the stressors that many student-athletes face, a large number turn to various coping mechanisms to manage their stress. Coping mechanisms are defined as behaviors intended to manage stress (Moeller et al., 2020). For some athletes, diet is a way to cope with stress. The competitive environment of athletics leads to the development of eating disorders for many athletes, males and females alike (Defeciani, 2015).

The transition from high school to college for athletes places an added pressure and expectation to excel in their respective sports, leading to a higher rate of eating disorders among athletes than the general population (Deficiani, 2015). Coinciding with an increase in eating disorders is an increase in number of athletes who experience mood disorders compared to non-athletes (Shannon et al., 2019). Even though athletes are more susceptible to mood disorders compared to their non athlete counterparts, "stigma may be higher among athletes compared to non-athlete peers. Stigma, coupled with a culture that emphasizes toughness and the minimization of perceived weakness may contribute, in part, to under-recognition of mental illness in the athletic population" (Uphill et al., 2016). An added consequence to the stress load faced by student-athletes is a reduction in the amount of sleep each student-athlete receives each night.

According to Taylor et al., (2016), "Empirical evidence demonstrates that reduced sleep negatively influences athletic/academic performance and various indices of morbidity" (p. 2). This decreased performance in both athletics and academics can have a snowball effect on the psychological stress that many athletes face, as a decrease in athletic and academic performance can further compound the effects of stress. In athletes and non-athletes alike, "high levels of stress cause different alteration in students, such as deficits in attention and concentration, difficulty memorizing and solving problems, low productivity and poor academic performance" (Gallego et al., 2014). To mitigate the effects of this stress, a variety of techniques and treatments have been researched and proposed in the literature.

One such technique is that of mindfulness. For many athletes, mindfulness has been shown to be an effective technique for minimizing the effects of stress as it has been shown to decrease cortisol levels.

The findings of Moeller et al. (2020) "suggest that students who report higher levels of mindfulness appear to be better adjusted across several domains of functioning. As such, efforts to foster mindfulness in college students may support well- being and protect emerging adults from the potentially harmful effects of stress" (p. 7). Similar research has demonstrated that MBST is an effective method of reducing stress in students and student-athletes by incorporating elements of students' lives.

According to Voss et al. (2020), MBST has been shown to have a measurable and positive impact on students' health regarding physiological data (i.e., HRV & BP). One reason that mindfulness interventions are successful in mitigating stress is the fact that engaging with mindfulness helps athletes foster perceptions of competence in mental health self-management, which is beneficial in stress regulation and well-being (Shannon et al., 2019).

In a similar manner of coping with stress, student-athletes must appraise what their level of control is over their circumstances and sort their level of control into three categories: that which is controllable-by-self, controllable-by-others, and uncontrollable-by-anyone (Nicholls et al., 2016). A related vein of thought,

attribution-theory, posits that motivation may be an effective way to ensure success for student- athletes by encouraging them to take responsibility for the stress-inducing factors that they can control (Parker et al., 2018). By helping students shift attributions in both academics and athletics, high-stress student-athletes are more likely to feel in control when confronted with stressful circumstances, which also motivates them to perform better (Parker et al., 2018). Coaches and professors alike must aid student-athletes in recognizing ways in which they can manage the stress in their lives. For example, viewpoints must be instilled in athletes such as that all athletes are scholars, athletes should pursue academics above athletes, athletics are only one facet of an athlete's identity, and athletes must see themselves as active participants in the academic process (Cross & Fouke, 2019). In this way, athletes can gain a broader perspective in their role as both a student and an athlete, as they will be able to understand aspects of their roles that they are able to control.

Similarly, coaches must interact with athletes in a way that athletes perceive as being positive or supportive (Nicholls et al., 2016). Because the athlete/coach relationship is so important to student-athletes and can have such an important impact on their stress levels and mental health, coaches must be aware of how their interactions with athletes can both positivity and negatively affect their self-image and psychological stress levels. Ultimately, professors and coaches alike must come alongside student-athletes to help them recognize their potential as they balance the stresses of both academics and athletics. Approximately 86% of

student-athletes graduated in 2015 with a total of 16,565 more student-athletes graduating from 2001 to 2015 (Hosick, 2015). Even with the increase in graduation rates (Gaston-Gayles, 2004), student-athletes continue to have difficulty excelling academically throughout their college career. Studies indicate that on average student-athletes report lower grades, lower overall grade point averages, lower SAT (scholastic aptitude test) scores, and spent less time completing school work than their non-athlete peers (Yopyk & Prentice, 2005).

Wilson and Pritchard (2005) noted that 95% of male athletes and 86% of female athletes reported feeling stressed due to tests and examinations, essays, absences due to frequent travel, and turning in missed assignments. It has been reported that student-athletes, on athletic scholarships, receive on the average 0.13 points lower than walk-on athletes and 0.20 points lower than non-athletes on graded assignments (Robinson, 2016). This decrease in performance may be due to academic stressors. Academic stressors are not new to the athletic-academic world. As stressors continue to increase and academic performance continues to decrease, the NCAA is persistent in pursuing measures to improve academic performance (Comeaux and Harrison, 2011). The NCAA continues to adjust the student-athletes initial eligibility standards. The standards are to increase the likelihood of graduation. Currently the initial standards are based on a sliding scale that combines the GPA of sixteen 4 approved core courses with the SAT or ACT score. In order to participate and receive an athletic scholarship, the student must minimally meet the sliding scale criteria that starts at a GPA of 2.3 on the

approved core courses with a 900 SAT or 75 ACT. This was done in an effort to reduce academic stress and increase collegiate preparation for the first-year athletic participation of student-athletes (National Collegiate Athletic Association - NCAA, 2016).

The NCAA has also created the Academic Progress Rate (APR). The APR makes student-athletes and college administration accountable for academic performance through a team-based metric that accounts for student-athlete eligibility and retention during each academic term (National Collegiate Athletic Association [NCAA], 2016). The APR rewards superior academic performance and penalizes teams that do not reach certain academic requirements. For example, an athletic team that has shown superior academic performance may be rewarded into a bowl game if their athletic record is equal to that of another team, whose APR is not as good. Rewards and penalties are imposed by the Division I Committee on Academic Performance (NCAA, 2016). With continued efforts to support student-athletes, the NCAA created the Challenging Athletic Minds for Personal Success, CHAMPS/Life Skills Program. CHAMPS consists of three programs: academic commitment, athletic commitment, and commitment to personal development. The program was created to increase success for all student-athletes. CHAMPS helps student-athletes with necessary skills needed to excel in college, commit to their academics, and create life skills for after college 5 (Davoren & Hwang, 2014; Comeaux & Harrison, 2011).

The influence of stress on student athletes are manifold. Incidentally, stress can bring about effects that are physiological, behavioral and even psychological in nature (Mwakoghu, 2011). Physiological effects involve the interplay of certain hormones that cause a certain response in the body of the affected person leading to effects such as increase in the rate at which the heart beats and subsequently resulting in more sweating. At the same time, stress is believed to be able to affect the body's immune system leading to frequent colds and flues. On the other hand, behavioral effects of stress can result in one being moody, quiet or jumpy, excitable, or even irritable (Chebbet, 2012) and so it has been noted that this may lead to drinking or smoking and even too much use of internet and television. Psychologically, stress may decrease a student's interest and ability to work or interact effectively with other people and to make good decisions. This may cause anxiety and depression.

Fundamentally, collegiate athletes have two major roles they must balance as part of their commitment to a university: being a college student and an athlete. Academic performance is a significant source of stress for most college students (Aquilina, 2013; López de Subijana et al., 2015; de Brandt et al., 2018; Davis et al., 2019). This stress may be further compounded among collegiate athletes based on their need to be successful in the classroom, while simultaneously excelling in their respective sport (Aquilina, 2013; López de Subijana et al., 2015; Huml et al., 2016; Hamlin et al., 2019).

Davis et al. (2019) conducted surveys on 173 elite junior alpine skiers and reported significant moderate to strong correlations between perceived stress and several variables including depressed mood (r = 0.591), sleep disturbance (r = 0.459), fatigue (r = 0.457), performance demands (r = 0.523), and goals and development (r = 0.544). Academic requirements were the highest scoring source of stress of all variables and was most strongly correlated with perceived stress (r = 0.467). Interestingly, it was not academic rigor that was viewed by the athletes as the largest source of direct stress; rather, the athletes surveyed reported time management as being their biggest challenge related to academic performance (Davis et al., 2019).

This further corroborates the findings of Hamlin et al. (2019). The investigators reported that during periods of the academic year in which levels of perceived academic stress were at their highest, students had trouble managing sport practices and studying. These stressors were also associated with a decrease in energy levels and overall sleep quality. These factors may significantly increase the collegiate athlete's susceptibility to illness and injury (Hamlin et al., 2019). For this reason, coaches should be aware of and sensitive to the stressor's athletes experience as part of the cyclical nature of the academic year and attempt to help athletes find solutions to balancing athletic and academic demands.

According to Aquilina (2013), collegiate athletes tend to be more committed to sports development and may view their academic career as a contingency plan to

their athletic career, rather than a source of personal development. As a result, collegiate athletes often, but certainly not always, prioritize athletic participation over their academic responsibilities (Miller & Kerr, 2002; Cosh & Tully, 2014, 2015).

2.5 The GPA of student-athletes in the year of competitive sports and the year of no competitive sports in the Colleges of Education in Ghana.

The academic pressures that student athletes face can potentially play a larger role in these student athletes' lives (Rankin et al., 2016). A specific area that can potentially be affected by these various pressures can be a student athlete's academic performance. A lot of research studies have looked at the relationship between collegiate student athletes and their relationship with their academic performance. Beron and Piquero (2016) speak upon the academic performance of collegiate student athletes through all NCAA sponsored divisions.

An NCAA sponsored division is a division that is governed by the National Collegiate Athletic Association. The potential pressure that can cause student athletes to become overwhelmed and perform poorly academically can be the high expectations they are faced with from not only others but themselves (Beron & Piquero, 2016). These outside factors can cause an array of issues or provide the right motivation towards a student athlete's academic performance at the collegiate level (Kane et al., 2008).

Some examples of these pressures can vary from a parent expecting their student athlete to perform well their first semester even though this is typically when student athletes struggle the most academically (Beron & Piquero, 2016). Another example is when coaches are expecting an athlete to practice/train up to three times a day while attending class and doing assignments (Beron & Piquero, 2016). These high expectations can also be tied into what NCAA sanctioned divisions the athlete is participating in.

Certain student athletes' GPAs could drop or rise depending on their academic and athletic identity and potentially their sex (Beron & Piquero, 2016). An athlete's academic identity can range in several different areas. For starters, a student athlete can view themselves as the stereotypical jock that is portrayed in media where being excellent academically is unimportant (Levine, 2014). Their academic identity could also be shown through the idea that they cannot be intelligent because they are only at the institution to participate in their respective sport and their respective sport only (Levine, 2014).

This particular academic identity can lead student athletes to not put forth the effort into their academic work therefore resulting in poor grades (Levine, 2014; Stansbury, 2003). Also, this thought process can lead to the potential drop in academic performance for student athletes because they believe they are just doing what society believes they should be like (Levine, 2014). Joshua Levine's (2014) study dives into the thought process a collegiate student athlete goes

through when viewing academic achievement compared to what others perceive of that academic performance. These outside influences that were stated earlier could potentially be why some student-athletes perform poorly academically if these perceptions are not forced upon them (Levine,2014). On the opposite end of this spectrum are the student athletes who perceive their academic performance to be important and have a strong identity regarding this aspect in their collegiate career (Beron & Piquero, 2016; Levine, 2014). Typically, these student athletes performed better academically because although they had pressures, they had a support system that was there to assist them (Comeaux & Harrison, 2011; Levine, 2014).

Levine continues on to say that this pluralistic ignorance relies heavily on perceived norms in these groups and can be considered a heavy factor in why student-athletes potentially underperform academically (Levine, 2014). After Beron and Piquero's (2016) study, the researchers reported that their findings were that the GPA of student athletes are influenced by their athletic versus academic identity and that there are no statistical differences regarding sex or division. There are previous research studies that are comparative with their findings regarding student athletes and their academic performance.

2.6 Summary of Gap in Literature

The chapter has provided a review of literature. Its area of focus included what existing literature say about; the influence of sports participation stress on

academic performance. The review reveal that several scholars have pay attention to the nexus between stress and academic performance. However, it also reveals that there is a lot of inconsistency in existing research concerning how stress influence different aspects and indicators of academic performance. It also indicates that no research has gone to the assessment of the same among Ghana Colleges of Education. Therefore, there is a gap in the literature regarding the relationship between sports stressors and academic performance of student-athletes in Colleges of Education in Ghana.

While several studies have explored the impact of sports participation on academic performance, there is limited research specifically focusing on the stressors faced by student-athletes and how these stressors may affect their academic success. One possible reason for this gap in the literature is the lack of attention given to student-athletes in Colleges of Education in Ghana as compared to their counterparts in traditional university settings. Student-athletes in Colleges of Education may face unique challenges and stressors that are not adequately addressed in the existing literature. To address this gap, future research should explore the specific stressors experienced by student-athletes in Colleges of Education in Ghana and how these stressors impact their academic performance. This research can provide valuable insights for college administrators, coaches, and educators to better support student-athletes in balancing their sports and academic responsibilities. The current study draws from this gap in literature and seeks to, delve into the influence of sports participation stress on academic

performance in Ghana Colleges of Education, with particular interest in student athletes.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter outlined the research design, study location, target population and sampling techniques. It further discussed sample size, instrumentation, pre-testing, validity, reliability, data collection techniques, data analysis and ethical and logical consideration.

3.2 Research Design

According to Saunders et al. (2012), a research design is a general map of how the researcher intends to go about answering the study questions. Saunders et. al. (2012), state that a research design is a general map of how the researcher intends to go about answering the study questions. It is the edifice of the research design which really outlines exactly what the researcher seeks to find from the study and how he or she will carry out the study (Muzenda, 2014).

This study employed the cross-sectional survey design to collect both quantitative and qualitative data from student-athletes and lecturers. The cross-sectional survey design was used because it allows a large amount of data to be collected within a short time (Rose et al., 2015). According to Zangirolami-Raimundo et. al. (2018), the aim of cross-sectional studies is to obtain reliable data that make it possible to generate, robust conclusions, and create new hypotheses that can be investigated with new research. Zheng (2015) states that a cross-sectional survey is a type of research design in which the researcher collects data on only a small

portion of the population to obtain large information about the sampled elements of the population as a whole. Both quantitative and qualitative data were collected in this study.

The quantitative data collected was positive in reporting the demographic data of the respondents and it also offered the researcher an opportunity to test the null hypotheses formulated in order to ascertain the relationship between the independent variables and dependent variables. The qualitative data, on the other hand, enabled the researcher to collect in-depth knowledge about the problem under investigation. The purpose of collecting both quantitative and qualitative data simultaneously is to sustain the strength and improve the limitations of the two designs (Creswell, 2014).

3.3 Variables of the Study

The variables of this study were categorized as; independent, intervening and dependent variables. The independent variables were the demographic and affective type. The demographic variables were gender, age, and educational level while affective variables were; stress management facilities, and stressors (training, camping, travelling and competition. The intervening variable(s) were stress management facilities such as (counselling, listening to music, physical exercise facilities and socialization). The dependent variables were student athletes' academic performance.

3.4 Location of the Study

Location of study plays a key role in academic performance and stress levels. A strategic location can have a significant impact on a student's ability to focus, learn, and succeed in their studies. For example, a study by Elsa Rebeca GarcÃa-GarcÃa and Carlos Salavera (2020) found that students who study in quiet, well-lit environments are able to concentrate better and are more likely to perform well academically. The location of the study was selected based on its centralization, making assess to facilities much easier for student-athletes in that vesinity. The proximity of study location to resources such as libraries, academic support services, and study groups can also influence academic performance. A study by Christina Reiss and Amber Wiest (2016) found that students who have easy access to these resources are more likely to excel in their studies. Furthermore, the location of study can also impact stress levels. A study by Lijun Deng and Xiaoxia Zhang (2019) found that students who study in noisy or crowded environments are more likely to experience higher levels of stress, which can negatively impact their academic performance. In contrast, studying in a peaceful and comfortable location can help reduce stress and improve cognitive function.

The location of study is a crucial factor in academic performance and stress levels in the life of student-athletes in Colleges of Education in Ghana. Choosing a strategic location that is conducive to learning and minimizes distractions can significantly impact a student's success in their studies. The study was conducted in six (6) colleges of education out of the forty-six (46) Colleges of Education in

Ghana. The (6) six Colleges of Education are located in (3) three of the (5) five zonal grouping of Colleges of Education in Ghana. The three (3) zones can be located in nine (9) of the sixteen (16) regions of Ghana, which has thirty-six (36) of the forty-six (46) Colleges of Education in Ghana. Ghana is a West African nation with a total population of 34.5 million and a land size of 238,533sq km (world population review, 2024). The nine (9) regions are Ahafo that the three (3) zones that the six (6) colleges of education chosen for the study were, Ashanti, Bono, Bono East, Central, Oti, Volta, Western and Western North. These regions form the ASHBA, VOLTA and CENWEST zones of Ghana Colleges of Education. These nine (9) regions were selected because they have more than two-thirds of the College of Education in Ghana. Also, they have higher students' enrolments than the other colleges in the other two (2) zones in the remaining six (6) regions in Ghana.

The Ahafo Region is a newly created region in Ghana with Goaso as its capital. The region was carved out of the south-eastern part of the Brong Ahafo Region. Ahafo is endowed with rich natural resources such as Gold, Diamonds, Timber etc. Gold deposit abounds in large quantities in the Mim, Ahafo, Kenyasi and Yamfo Areas. Newmont Gold Ghana Limited which is one of the biggest mining companies in the world, currently have their mining operations in the Kenyasi and Yamfo Areas. Ahafo being one of the forest belts in Ghana, has a lot of forest reserves.

The Timber industry is the second highest employer in the Region. There are large and medium timber companies scattered across the Region. Notable among the timber companies in the region are Ayum Forest Products Co. Ltd, Mim Exbo wood Co. Ltd, Ocean-wood Co. Ltd, Supremo-wood processing Co LTD, all in Mim, Ahafo. Ahafo Region is known to be the bread basket of Ghana. The soil type in the region supports the production of both food and cash crops. The region is known for its large cocoa and cashew productions. The major agro-processing company in the region is the Mim Cashew & Agric Products Company LTD located at Mim, Ahafo. The Region needs more of the agro-processing companies to leverage on the Agricultural outputs produce by the Region.

The Ashanti region is the third-largest region in Ghana. It is located in the southern part of Ghana. Kumasi is the capital city of the Ashanti region. The Ashanti region occupies a total land surface of 24,389 km2 (9,417 square meter) or 10.2 percent of the total land area of Ghana. In terms of population, however, it is the most populated region with a population of 4,780,380 according to the 2011 census, accounting for 19.4% of Ghana's total population. The Ashanti region has 30 districts made up of 1 Metropolitan, 7 Municipal and 22 districts. It shares boundaries with the Central, Western North, Eastern, Brong Ahafo, Bono East and Ahafo regions. Unlike Volta region, the people of Ashanti region speak one common language known as Akan which is widely spoken by the majority of Ghanaians.

The Bono East region of Ghana is a new region carved out of the Brong Ahafo region. The capital of the new region is Techiman. The Bono East Region borders on the north the Savannah Region, on the west the Bono Region, on the south the Ashanti region and on the east the Volta Lake. The Bono East region is part of the vegetative belt of Ghana, where the climatic condition is always conducive. The vegetation consists predominantly of forest and fertile soils. Between December and April is the dry season. Sometimes the wet season is between about July and November with an average annual rainfall of 750 to 1050 mm (30 to 40 inches). The highest temperatures are reached at the end of the dry season, the lowest in December and January. However, the hot Harmattan wind from the Sahara blows frequently between December and the beginning of February which is dry and hot. The temperatures can vary between 14 °C (59 °F) at night and 40 °C (104 °F) during the day. The production of yam is very high in the woodland Savannah zone in Techiman, Yeji, Nkoranza, Kintampo, Kwame Danso, Prang and others. Beans, maize, cassava, cocoyam, rice, plantains and more are produced in this region, as well as fishing activities that takes along the region's side of Lake Volta.

The Bono region is one of the 16 administrative regions of Ghana. It is as a result of the remainder of Brong-Ahafo region when Bono East region and Ahafo region were created. Sunyani, also known as the green city of Ghana is the regional capital. Sunyani can pride itself as the cleanest capital city and a major conference destination. This area's topography is mainly characterized by a low elevation not

exceeding 152 metres above sea level. It has moist semi-deciduous forest and the soil is very fertile. The region produces Cash crops like cashew, timber, etc., and food crops such as maize, cassava, plantain, cocoyam, tomatoes, and many others. Bono Region shares a border at the north with the Savannah Region, is bordered on the west by Ghana-Côte d'Ivoire international border, on the east by Bono East, and on the south by Ahafo Region. It has a population of about 1,208,649 according to Ghana statistical service in 2021 census.

The Central Region is one of the sixteen administrative regions of Ghana. It is bordered by Ashanti and Eastern regions to the north, Western region to the west, Greater Accra region to the east, and to the south by the Gulf of Guinea. The Central region is renowned for its many elite higher education institutions and an economy based on an abundance of industrial minerals and tourism. The Central region attains many tourist attractions such as castles, forts and beaches stretched along the Central region's coastline.

The Oti Region is one of the six newly created regions of Ghana in December 2018. The region was carved out of the northern part of the Volta Region. The Oti Region is bordered on the north by the Northern region, to the south by the Volta Region, and to the west by the Volta Lake. It has 9 districts.

Volta region is located between latitudes 50 45 “N and 80 45” N west to the Republic of Togo. Domestically, the Volta region shares a boundary with Greater

Accra region, Oti region and Eastern region. Ho is the capital city of the Volta region. The region has a total land size of about 20,570 square kilometers, representing 8.7 percent of the total land area of Ghana until December 2018 when Oti region was created from it. The Volta region has 17 administrative districts. Volta is a multilingual and multi-ethnic region. The ethnic groups are Ewe and Guan.

The Western North Region is one of the six new regions of Ghana created in 2019. The region is bounded by the Ivory Coast (Comoé District) on the west, the Central region in the southeast, and the Ashanti, Ahafo, Bono East and Bono regions in the north. The Western North Region has the highest rainfall in Ghana, lush green hills, and fertile soils. There are numerous small and large-scale gold mines companies in the region. The ethnic culture of the region is dominated by the Sefwis. The main languages spoken are Sefwi, Akan, French and English.

The Western Region is located in south Ghana, spreads from the Ivory Coast (Comoé District) in the west to the Central region in the east, includes the capital and large twin city of Sekondi-Takoradi on the coast, coastal Axim, and a hilly inland area including Elubo. It includes Ghana's southernmost location, Cape Three Points, where crude oil was discovered in commercial quantities in June 2007.The region covers an area of 13,842 sq. km, and had a population of 2,060,585 at the 2021 Census.

The location was chosen basically on the assumption that the zones are known for having Colleges of Education situated in towns virtually known for busy sports activities therefore abundant with active student-athletes who could potentially be interested in participating in the study. In the ASHBA zone, the focus was on Wesley College of Education and St. Louis College of Education, both located in Kumasi. In the CENWEST zone, the focus was on Our Lady of Apostle (OLA) College of Education in Cape Coast and Foso College of Education in Assin Foso and in the VOLTI zone, the focus was on St. Francis College of Education and St. Teresa's Colleges of Education both in Hohoe, making it much easier to reach out to the student-athletes because of proximity.

3.5 Target Population

The target population of a study plays a crucial role in understanding the relationship between academic performance and sports stressors. By focusing on a specific group of individuals, researchers are able to tailor their study to address the unique challenges and stressors that this population may face. For example, a study conducted by Rosenthal and Curby (2019) examined the impact of sports-related stressors on academic performance in college athletes. By focusing on this specific population, the researchers were able to identify the unique stressors that may be affecting the academic performance of the student-athletes, such as travel schedules, time constraints, and physical exhaustion. Furthermore, by studying a specific population, researchers can develop targeted interventions and strategies to support this group in overcoming their stressors and improving their academic

performance. For example, a study by Zandi et al. (2020) found that implementing stress management techniques, such as mindfulness training, was effective in reducing sports-related stress and improving academic performance in college athletes.

In conclusion, targeting a specific population in studies on academic performance and sports stressors is strategic as it allows researchers to identify and address the unique challenges faced by this group, leading to more targeted interventions and strategies for improving both academic performance and overall well-being. The population of interest for the study is comprised of the individuals, dyads, groups, organizations, or other entities one seeks to understand and to whom or to which the study results may be generalized or transferred and is the principal group about which the research is concerned. Populations create boundaries for the scope of a study and provide environmental and context cues for the reader. Such boundaries place natural delimitations upon the research to afford the study the proper focus so as not to present a one-size-fits-all set of results (Salkind, 2010).

The definition of boundaries also allows the researcher to clearly identify subpopulations, such as the target population, sampling frame, and sample, and to ensure alignment between these groups within the research (Salkind, 2010). According to Chaudhury (2010), a target population is an entire group about which some information is required to be ascertained. The target population refers to all the elements that will meet the particular conditions outlined for a research

study (Alvi, 2016). The target population can also be referred to as a group of persons with distinctive features the researcher wants to study and collect data from (Arthur-Nyarko, 2017). This study targeted 12 lecturers of physical education and 768 student-athletes in six (6) Ghana Colleges of Education. These six colleges were selected using simple random sampling technique. Table 3.1 indicates the target population for the study.

Table 3. 1: Target Population

Participants	**Male**	**Female**	**Population**
Student-Athletes			
St**.** Francis College	**128**	**64**	**192**
St**.** Teresa's College	-	**64**	**64**
Wesley College	**128**	**64**	**192**
St**.** Luis College	-	**64**	**64**
Fosu College	**128**	**64**	**192**
OLA College	-	**64**	**64**
Lecturers	**8**	**4**	**12**
Total	**392**	**388**	**780**

Source: (COESA, 2023)

The students were chosen because they were those directly affected by the situation under investigation. Due to the nature of the college of education program, non-sports players are not likely to experience any sports stressors that may affect their academic performance. Furthermore, non-student-athletes don't have any experience in managing sports stressors as the don't involve in sports play.

3.6 Sampling

This section described the processes and procedures followed in selecting representative respondents from the target population for this study.

3.6.1 Sampling Techniques

According to Kadam and Bhalerao (2010), the sample size in research is motivated by the level of accuracy attached to the research results, the target population, and whether the population differs greatly in terms of its features. Considering the determinants stated by the authors, the study used simple random and purposive sampling techniques in sample selection. Simple random sampling was used to randomly select student-athletes in the colleges targeted. Simple random sampling was used because the researcher cannot collect data from all the students in the 36 colleges of education in the three zones (Alvi, 2016). Simple random sampling is a technique of sampling in which each individual in a target population has an equal probability of inclusion in sample (Taherdoost, 2016).

There are many lecturers in the Colleges of Education teaching various courses. Purposive sampling was, therefore, used to select only Physical Education lecturers to provide necessary information for the study because they were the best people that may know the influence of sports stress on the academic performance of student-athletes. Burke and Christensen (2014) state that purposive sampling is a non-probability form of sampling. Purposive sampling is sometimes called judgmental sampling. In purposive sampling, the researchers

indicate the features of a population of interest. According to Etikan, et.al. (2016), purposive sampling comprises recognition and selection of participants or groups of participants that are expert and up-to-date with a phenomenon of interest.

3.6.2 Sample Size and sampling procedure

A sample is a collection of individuals from a population one is interested to study (Malone & Coyne, 2016). To arrive at sample size for this study the Yamane formula (as cited in Israel, 1992) at a 95% confidence level and *e*= 0.05, to take care of sample error and degree of variability was used. The said formula is thus presented:

$$n = \frac{N}{1 + N(e)^2}$$

Where *n* is the sample size, N is the population size, and *e* is the level of precision/sampling error. Using the formula above, with a student-athlete population of 768, the study will arrive at 263 as a sample size for students. The sample size will, however, be adjusted by 23% to make up for instances of nonresponse by some members of the chosen sample (Israel, 1992). Therefore, the sample size for the study will be 323 students. Table 3.2 shows the sample grid of the sample size.

Table 3. 2: Sample Size

Participants	Sample
Student-athletes	323
Lecturers	12
Total	**335**

3.7 Research Instruments

According to Anum (2017), research instruments are the instruments or tools that aid a researcher to collect data. Research instruments are what a researcher uses for collecting information (data) to answer research questions and these include questionnaires, interview guides, and document analysis (Kok Eng, 2013). The study employed a questionnaire, interview guide, and document analysis.

3.7.1 Questionnaire for Students

A questionnaire is simply a list of mimeographed or printed questions that is completed by or for a respondent to give his opinion'. A questionnaire enables quantitative data to be collected in a standardized way so that the data are internally consistent and coherent for analysis (Roopa & Rani 2012). Mugenda and Mugenda (2012) observed that questionnaire is administered to a population to ascertain information needed for research.

In this study, a questionnaire was used to collect data from student-athletes. The questionnaire (Appendix A) contained four parts thus, parts A, B, C and D. Part A, focused on the background information of the respondents, while part B,

focused on stressors linked to the academic performance of student-athletes in Ghana Colleges of Education. Part C of the questionnaire was on the influence of stress on the academic performance of student-athletes in colleges of education whilst part D was the on GPA of student-athletes in the year of competitive sports and the year of no competitive sports in the Colleges of Education in Ghana.

3.7.2 Interview Guide for Lecturers

The interview was used to accrue data from Ghana Colleges of Education tutors. The interview guide in (Appendix B) was on ways of managing stress in Colleges of Education in Ghana. According to Rowley (2012), an interview is a face-to-face oral interaction in which an individual, the interviewer, tries to obtain data from and gain comprehension of another individual, the interviewee. Interviews are a method of data collection that involves two or more people exchanging information through a series of questions and answers.

It is essentially the oral, in-person administration of a questionnaire to each member of the sample. In this process, the interviewer can observe certain aspects of a person's behavior, such as his manner of speaking, poise, tendency, etc. (Sahoo, 2021). The questions may be pre-decided. Invariably it is seen that for data collection, the interview method includes only open-ended questions. The questions are designed by a researcher to elicit information from interview participants on a specific topic or set of topics (Sahoo, 2022).

3.7. 3 Document Analysis

Documents analysis will be used to analyse student athletes' academic performance in semesters where there are sports and games competitions and semesters during which there are no sports and games. Student-athletes end of semester results will be analysed. Document analysis is a research method for rigorously and systematically analysing the contents of written documents. The approach is used in political science research to facilitate impartial and consistent analysis of written policies (Wach, 2013).

Document analysis is a systematic procedure for reviewing or evaluating documents, thus both printed and electronic (computer-based and Internet-transmitted) material. Document analysis requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Bowen,2009). Documents that may be used for systematic evaluation as part of a study take a variety of forms. They include advertisements; agendas, attendance registers, and minutes of meetings; manuals; background papers; books and brochures; diaries and journals; event programs (i.e., printed outlines); letters and memoranda; maps and charts; newspapers (clippings/articles); press releases; program proposals, application forms, and summaries; radio and television program scripts; organisational or institutional reports; survey data; and various public records. Scrapbooks and photo albums can also furnish documentary material for research purposes.

3.8 Pilot Study

Questionnaire for the study were piloted at Holy Child College of Education which had similar features as the Colleges of Education selected for the study but was not part of the main study. Forty student-athletes were selected purposefully to pilot the questionnaire. The researcher visited the Holy Child College of Education, and personally distributed questionnaires to student-athletes. During the pilot study, participants were informed to take note of and comment on any ambiguity, missing words or improper sequencing found in the items.

The pilot study gave the researcher the opportunity to cross-check how easily items could be read and the meaning made out of them. Items that did not convey the right meaning were reviewed to ensure all items yielded usable data. Piloting also helped the researcher to note the length of time used in completing the items. The pilot study helped the researcher review items and sharpen them for the main study. The interview schedule for tutors was also piloted using two tutors. According to Ismail et al. (2017), a pilot study is a trivial study carried out in preparation for the final full-scale research. Ismail et al. (2017) also state that a pilot study will aid the researcher in testing in reality how likely the research process will work so as to enable them to determine how best to carry out the final study. The sample of student-athletes used for the pilot study will not participate in the actual or main study.

3.8 Validity and Reliability of the Instruments

3.8.1 Validity of the Instruments

Validity focuses on the exactness of the results from a data collection instrument or the comprehensiveness and usefulness with which a measuring instrument measures what it is supposed to measure. Content and face validity were used in this study. The content validity was carried out by giving the research instruments to experts in the subject area at the Educational Communication and Technology Department to review after developing the instruments. The experts were also given objectives and hypotheses for the study to read through.

The content validity index provided for each item by the expert was then computed by expressing the total number of relevant ratings over the total number of ratings. Items that had a content validity index of 0.6 and more were retained and items with a lower content-related validity index were revised to improve their content validity. Face validity was carried out by the researcher to ensure that questionnaire items are stated in a short, concise, and well-arranged manner so as to gain respondents' acceptability and motivation.

Validity is the measure taken to check for the precision of the research results (Creswell, 2014). According to Ghazali (2016), validity is the capability of a research tool to quantify what it is assumed to assess. Validity is described as the extent to which a theory is perfectly measured in a quantitative study (Heale & Twycross, 2017). The validity, therefore, serves to confirm whether the

instruments are testing what they are meant to test, hence the accuracy of the tools.

3.8.2 Reliability of the Instrument

To evaluate the reliability of the questionnaire, Statistical Package for Social Sciences (SPSS) software version 21 was used to analyse the data obtained from thirty (40) student-athletes who took part in the pilot study. After the analysis, the Cronbach coefficient alpha yielded a value of 0.88. The findings are in support of Arthur-Nyarko (2017) who states that a coefficient alpha value of 0.7 or higher is considered good enough for internal consistency reliability, with a minimum of 0.6 and a maximum of 0.96.

This made the questionnaire used in the pilot study very appropriate for use in the main study. Careful recording of the interview was conducted with two sports tutors who qualified to be sampled but were not included in the final sample and verbatim transcription of the recorded data also ensured that the reliability of the interview schedules was attained.

Reliability refers to the capacity of an investigation tool to continuously yield similar results throughout numerous utilizations (Bosibori, 2012). Taber (2013) explained that reliability is how far a research instrument produces a similar result when it is measured severally. The purpose of reliability is to confirm that a tool is testing elements in line with the research objectives. In this study, the internal

consistency reliability technique through the use of Cronbach coefficient alpha was used to measure the reliability of the questionnaires employed.

According to Arthur-Nyarko (2017), internal consistency is the degree to which items that constitute the scale measure the same central attributes. Internal consistency is achieved by grouping items that measure the same concept on the questionnaire. The Cronbach coefficient alpha is the most commonly used method for testing internal consistency (Arthur-Nyarko, 2017). It shows how items on the scale correlate among themselves. The coefficient alpha ranges between zero (0) and one (1). The closer the coefficient alpha is to 1, the better the reliability of the instruments and vice versa (Trochim, 2006).

3.9 Data Collection Techniques

The instruments used for data collection were a questionnaire, interview guide and document analysis. First of all, for the researcher to meet the logistical concerns of the study and to make sure that ethical issues were addressed, the researcher started the data collection procedure by collecting proposal approval letter from the Dean of Graduate School, Kenyatta University, after the Board of Graduate School approval of the proposal (Appendix B).

The researcher then wrote a permission letter and attached a copy of Kenyatta University Graduate School research approval letter to the Principals of Colleges of Education in Ghana (Appendix C) in order to obtain a research permit. The

researcher obtained the research permit (Appendix D) from the principals to collect data from the selected Colleges of Education in the target population. The researcher trained two (2) research assistants in each college on how to identify respondents and administer the questionnaire. So that they will be in position to help explain how to fill the questionnaire and the purpose of the study to the student-athletes. The questionnaire was distributed to student-athletes with the help of the research assistants that were trained in each college. The number of copies of the questionnaire issued out varied from place to place depending on the accessible population available.

The researcher conducted interview with sports Lecturers. Prior to the interview, the researcher visited the interviewee in order to:

i. Seek their consent.
ii. Explain the motive of the research to him/her.
iii. Seek for an appointment date and time.

The interview guide was sent to the interviewee for him/her to prepare. Permission was sought from the interviewee to record the conversation during the time of the interview with textile graduates. Interviewees were interviewed in their workplaces. The researcher also collected and analysed the results of student-athletes in the year of competitive sports and the year of no competition sports.

3.10 Data Analysis and Presentation

Data collected were first checked for completeness and organised along variables. The data collected were analysed quantitatively and qualitatively to address the objectives of the study. Descriptive and inferential statistics were employed in quantitative data analysis. The descriptive statistics were used to summarize, organize and describe the responses through the use of pie charts, and tables. The inferential statistics such as a one-way-analysis of variance (ANOVA) and point-biserial correlation, were used to test the formulated null hypotheses for the study. The aim of using the inferential statistical tools employed in this study was based on the type of hypotheses tested. The analyses were carried out in the following order:

The analysis of objective one and hypothesis one: to determine the possibilities of a demographic difference in stress coping among student-athletes in Colleges of Education in Ghana, was analyzed using a descriptive test such as a percentage count of the responses. The null hypothesis, one: demographic characteristics have no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana, was tested using a one-way analysis of variance (ANOVA) at the $p < 0.05$ alpha level of significance.

Analysis of objective two and hypothesis two: to determine sports stressors that are linked to the academic performance of student-athletes in Colleges of Education was analysed using a descriptive test such as a percentage count of the

responses. The null hypothesis two: competitive sports stressors have no statistically significant relationship with the academic performance of student-athletes in colleges of education in Ghana) was tested using a one-way analysis of variance (ANOVA) at the $p < 0.05$ alpha level of significance.

Analysis of objective three: to find out if stress from sport affects the academic performance of student-athletes in Colleges of Education in Ghana, was analysed using a descriptive test such as a percentage count of the responses. The null hypothesis three: competitive sports stress has no statistically significant influence on the academic performance of student-athletes in colleges of education in Ghana) was tested using point-biserial correlation.

Analysis of objective four: to compare the grade point average of student-athletes in the year of competitive sports and the year of no competitive sports in the Colleges of Education in Ghana was analysed using document analysis. Hypothesis was not formulated for objective three because only qualitative data was needed. Apart from demographic data, most of the quantitative data in the questionnaire were obtained on a 5-point Likert scale that ranged from strongly agree to strongly disagree. The Strongly Agree (SA) and Agree (A) categories were integrated into an Agree group, while the Strongly Disagree (SD) and Disagree (D) categories were added to form a Disagree category. The not-sure category was maintained.

The interview guides and document analysis data were transliterated to create records. The write-out of raw information was coded by hand under the various themes. The information was matched up and grouped in accordance with resemblances so as to develop categories. Table 3.3 shows the research objectives, hypotheses, data collection instruments and measuring statistical tools that were used in the study.

Table 3. 3: Objective, Hypotheses, Data Collection Tool and Measuring Statistical Tool

	Objective	**Null Hypothesis**	**Data Collection Tools & Instruments**
i.	**to determine the possibilities of a demographic difference in stress coping among student-athletes in Colleges of Education in Ghana.**	H_{o1}: Demographic characteristics have no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.	Questionnaire, interview guide; Pie chart, bar chart & ANOVA
ii.	**to determine sports**	H_{o2}: Competitive	Questionnaire,

	stressors that are linked to the academic performance of student-athletes in Colleges of Education	sports stressors have no statistically significant relationship with the academic performance of student-athletes in colleges of education in Ghana.	interview guide; Pie chart, bar chart & ANOVA
iii.	**to find out if stress from sport affect the academic performance of student-athletes in Colleges of Education in Ghana**	H_{o3}: Competitive sports stresses have no statistically significant influence on the academic performance of student-athletes in colleges of education in Ghana.	Questionnaire, interview guide; Pie chart, bar chart & ANOVA
iv.	**to compare the grade point average of student-athletes in the year of competitive sports and the year of**		Documents analysis

	no competitive sports in the Colleges of Education in Ghana
v.	**To propose an intellectual assessment model for Colleges of Education in Ghana**

3.11 Logistical Considerations

Regarding logistical considerations, the researcher estimated all the activities that were performed in the course of the research. These activities were: concept paper development, proposal development, pilot study, administration of research instruments, data analysis, writing a research report, submission of a final research report, and dissemination of research findings. These guided the researcher to schedule time for the activities and make adequate financial provision for all the activities.

3.12 Ethical Considerations

To satisfy ethical requirements, the researcher obtained research permits from the principals of the selected Colleges of Education the study targeted. After the permits were granted, the researcher went to the research sites on the scheduled dates to collect the data. At the research sites, participants were told the purpose of the study and their right to decide whether to participate or not. Respondents

were assured of their anonymity as the instruments did not require their names. Instruments were then administered to respondents and data was collected for the study.

CHAPTER FOUR: PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

The chapter presents a sequential analysis of both quantitative and qualitative data, interpretation, and discussion in relation to research objectives and hypotheses. The quantitative data analysis began with a descriptive analysis followed by inferential statistics that are meant to test the null hypotheses formulated to guide the study. The chapter also presents the analyses of qualitative data collected by using an open-ended questionnaire, the interview guide, and document analyses under the various themes.

The discussion of the findings makes references to studies that substantiate or contradict the findings. This study addressed the following specific objectives:

The study was guided by the following specific objectives:

i. To determine the possibilities of a demographic difference in stress coping among student-athletes in Colleges of Education in Ghana.
ii. To determine sports stressors that are linked to the academic performance of student-athletes in Colleges of Education.
iii. To find out if stress from sports affects the academic performance of student-athletes in Colleges of Education in Ghana.
iv. To compare the grade point average of student-athletes in the year of competitive sports and the year of no competitive sports in the Colleges of Education in Ghana.

v. To propose an intellectual assessment model for Colleges of Education in Ghana.

4. 2 Hypotheses

The study tested the following null hypotheses:

1. $H_0$1. Demographic characteristics have no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
    i. *$H_0$1.1:* Sex has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
    ii. *$H_0$1.2:* Age has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
    iii. *$H_0$1.3*: Level has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
2. $H_0$2. Competitive sports stressors have no statistically significant relationship on the academic performance of student-athletes in Colleges of Education in Ghana.
    i. *$H_0$2.1:* The stress of injury and illness from competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.
    ii. *$H_0$2.2*: Camping during competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

iii. *$H_0$2.3:* Long journey traveling to competitive sports hosting places has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

iv. *$H_0$2.4:* Pressure of competitive sports participation has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

v. *$H_0$2.5:* Training for competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

3. $H_0$3. Competitive sports stress has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

   i. *$H_0$3.1* Good stress management has no statistically significant influence on the academic performance of student-athletes.

   ii. *$H_0$3.2* Stress from competitive sports has no statistically significant influence on student-athletes edgy and worried during learning.

4. $H_0$4. There will be a statistically significant difference in the grade point average of student-athletes in the semester of no competitive sports as compared to the semester of competitive sports in the Colleges of Education in Ghana.

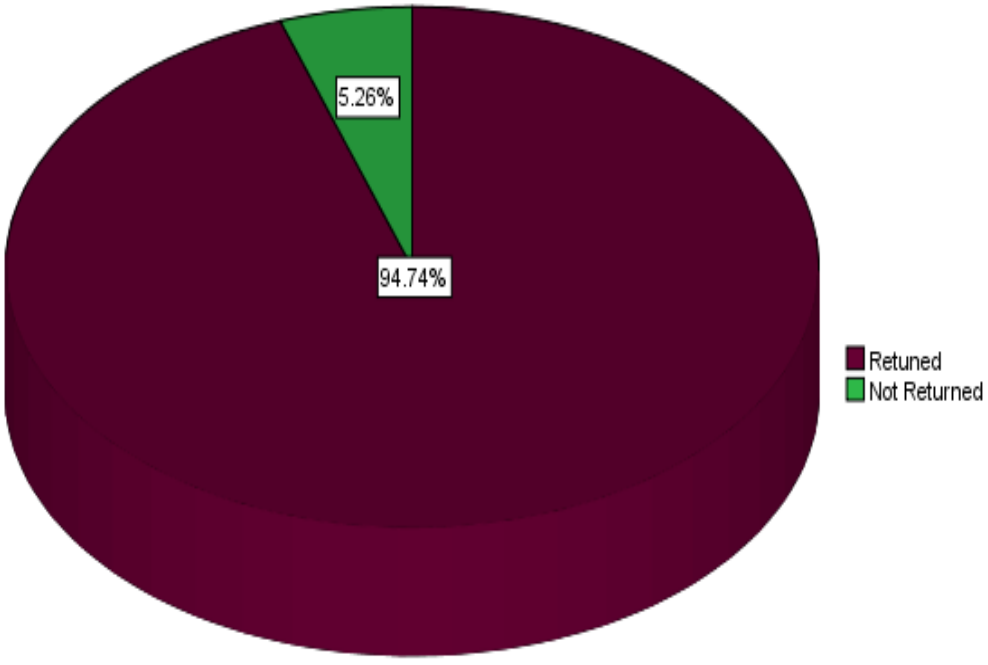
4.3 General Information

This section provides a questionnaire return rate of the study.

4.3.1 Questionnaire Return-Rate of Student-Athletes

The questionnaire was the main instrument used for data collection in this study. A total of three hundred and twenty-three (323) questionnaires were administered to student-athletes of Colleges of Education in Ghana. The distribution was done based on the accessible population. Out of the three hundred and twenty-three (323) questionnaires administered, 306 (94.74%) were retrieved whilst 17 (5.26%) were not returned. Figure 4.1 shows the questionnaire return rate of the student-athletes.

Figure 4. 1: Questionnaire Return Rate of the Student-Athletes.



Source: Field Questionnaire n = 323

However, 7 of the questionnaires retrieved were not properly filled and so the two hundred and ninety-nine (299) accurately filled questionnaires were analysed using SPSS. This high rate of return was due to good planning of the data collection procedure as suggested by (Cohen et al., 2007) that it is important to plan for good response rates by indicating how and when the questionnaire will be returned.

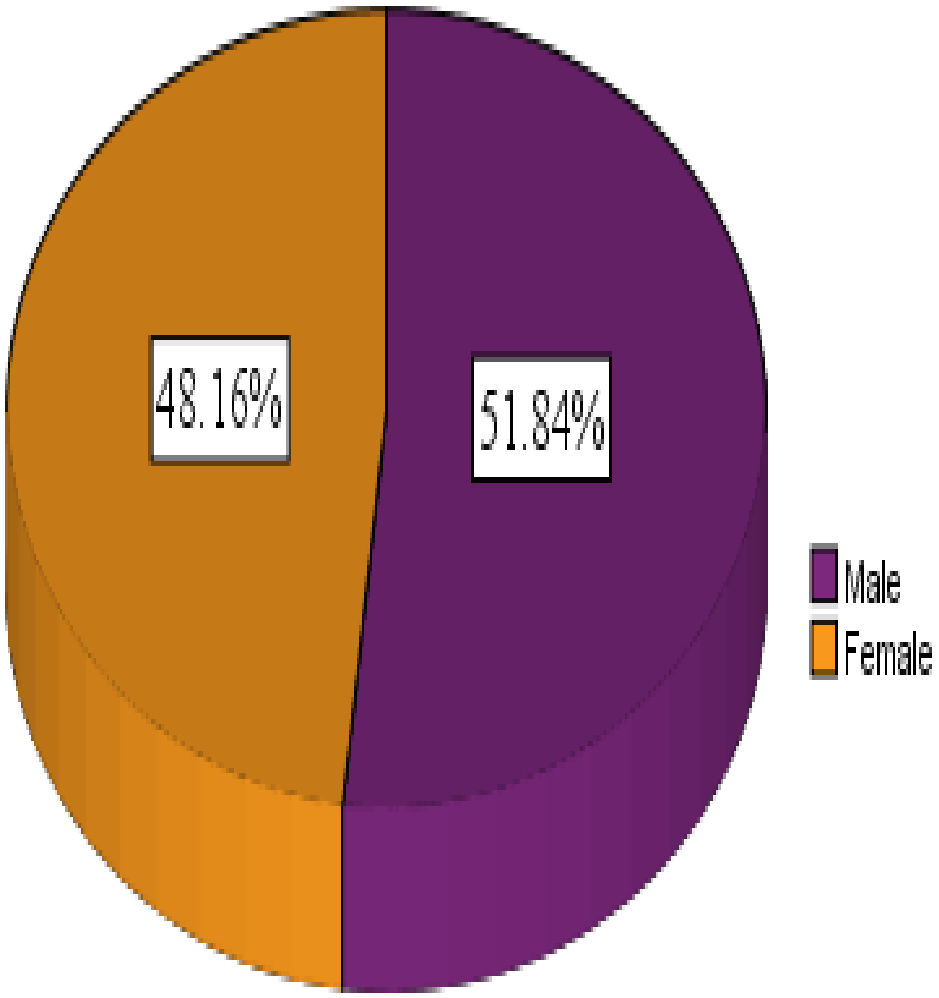
4.4 Objective One: To determine the possibilities of a demographic difference in stress coping among student-athletes in Colleges of Education in Ghana

4.4.1 Descriptive Data Analysis

The first objective of the study was to investigate whether there is a demographic difference in stress coping and management among student-athletes in Colleges of Education in Ghana. To achieve this objective, both descriptive and inferential statistical analyses were done. The purpose of obtaining the demographic data of the student-athletes in Colleges of Education in Ghana was to find out if demographic variables differ in stress coping among student-athletes in Colleges of Education in Ghana. The demographic variables of this study were sex, age, level of student-athletes, sex that suffers competitive sports stress most, and sex that well manages stress. Sex refers to the male and female of the respondents. Age denotes how old the respondents are. Level describes the year of study of the respondents.

The findings from the study indicate that majority of respondents 155 (51.84%) were males while females constituted 144 (48.16%) of the respondents. The results infer that more males participated in competitive sports in the Colleges of Education in Ghana than females. Figure 4.2 presents the results of the sex of the respondents.

Figure 4. 2: Gender of Respondents

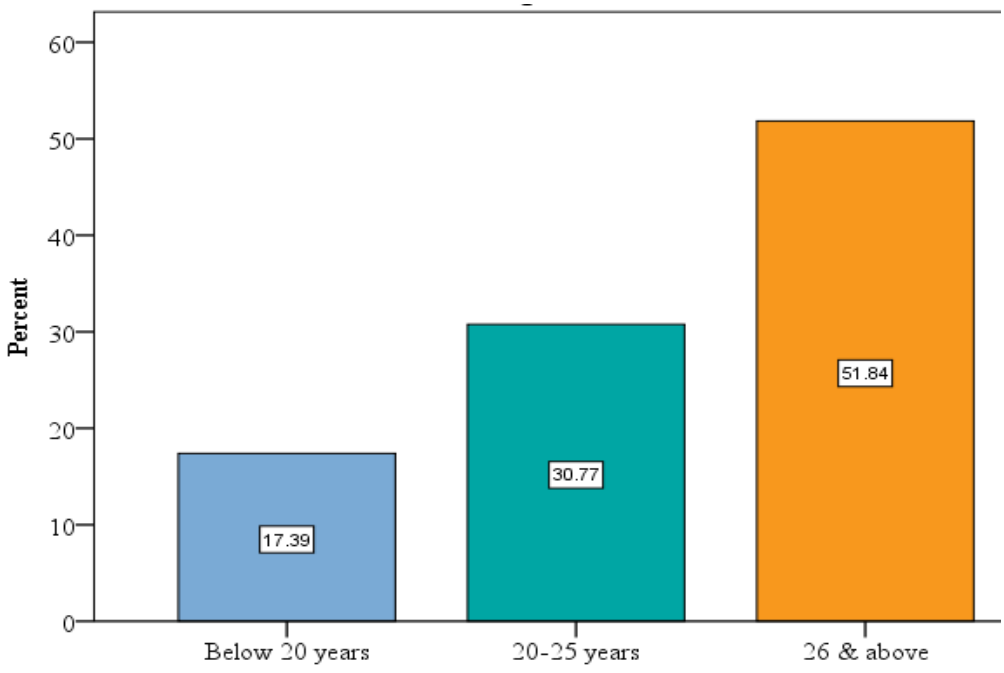


Source: Field Questionnaire n = 299

The distribution of respondents' age is necessary because it helps to determine the age groups whose academic performance is mostly affected due to stress from competitive. Figure 4.2 presents findings of the age group of Colleges of Education students who partake in competitive sports in Ghana. The findings indicate that majority of the students 155 (51.84%) of them were 26 years and above whilst 92 (30.77%) were between 20-26 years.

The findings further revealed that 52 (17.39%) were below 20 years. The findings mean that the age group between 26 years and above participates in competitive sports in Colleges of Education in Ghana more than other age groups. Figure 4.3 presents the results of the age group of the respondents.

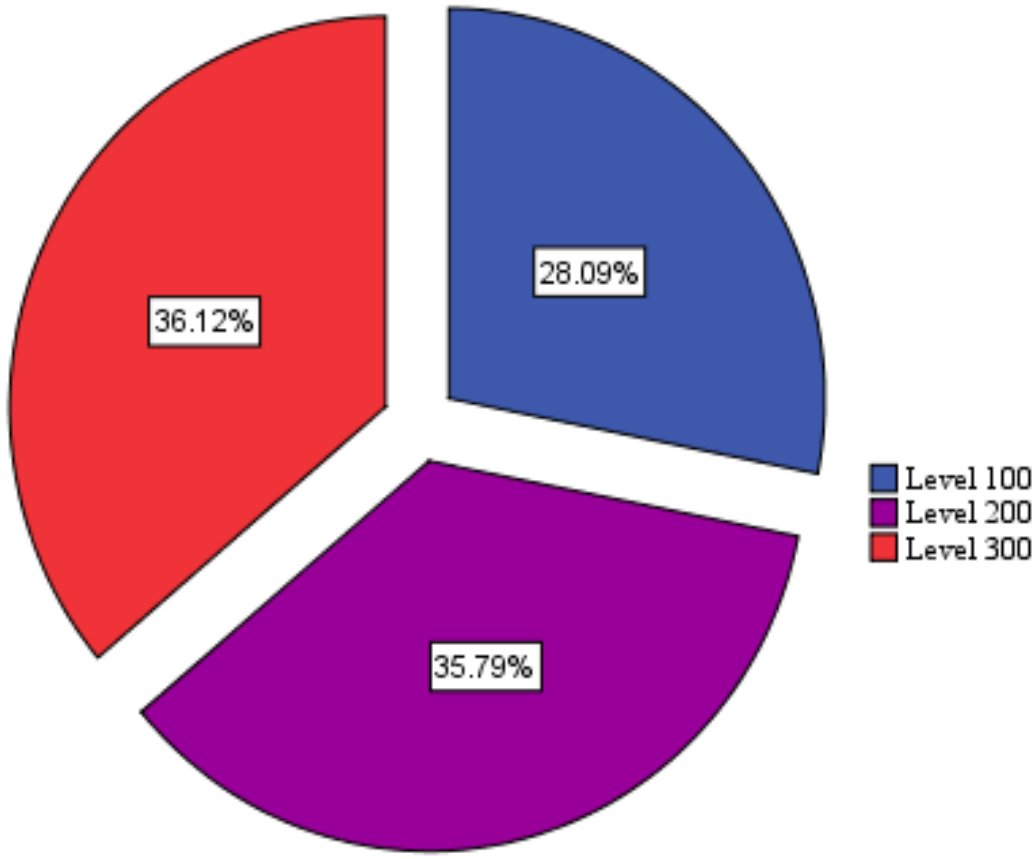
Figure 4. 3: Age Group of the Respondents



Source: Field Questionnaire n = 299

The distribution of respondents' level of study is imperative to this study because it helped the study to determine the level at which academic performance suffers most due to stress from competitive. The results in Figure 4.4 shows that the majority of respondents 108 (36.12%) were in level 300 while 107 (35.79%) were in level 300. The results also show that 84 (28.09%) were in level 100. The level distribution of respondents is important to the study because it enables the researcher to determine the level of the students who suffer stress from competitive sports participation.

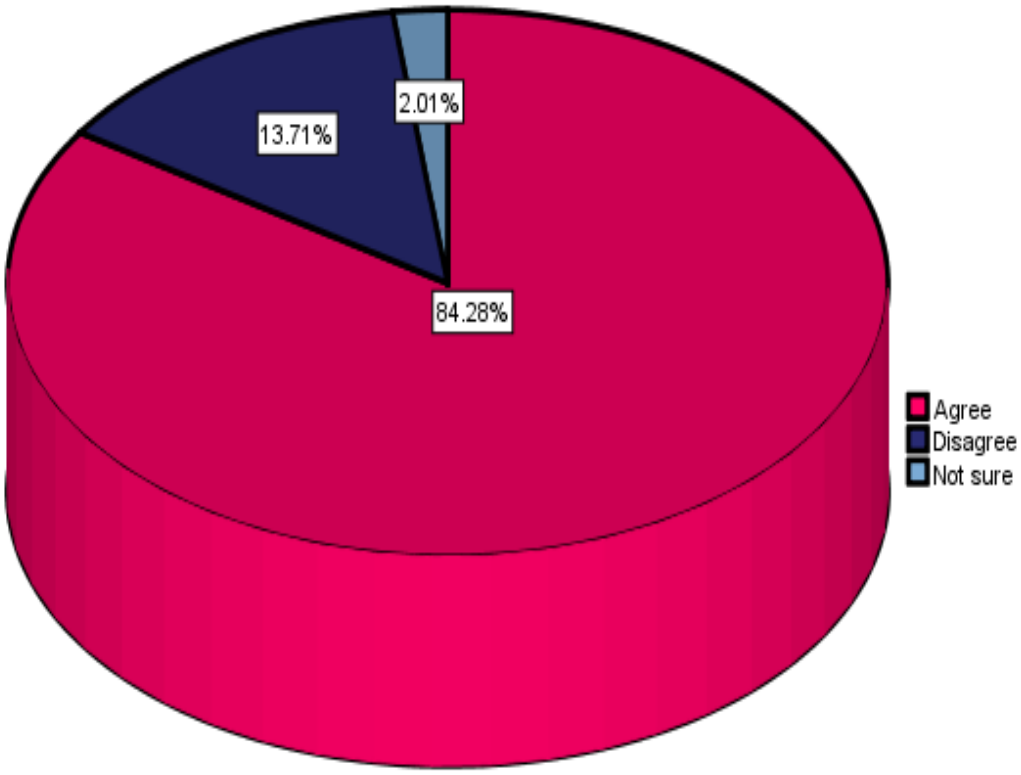
Figure 4. 4: Level of the Respondents



Source: Field Questionnaire n = 299

In Figure 5, the majority of respondents 252 (84.28%) agreed that females suffer competitive sports stress than males, 41 (13.71%) disagreed that females suffer competitive sports stress that males while 6 (2.01%) were not sure of the statement. The findings show that females suffer more stress from competitive sports than males. These findings are consistent with previous studies which revealed that women report higher levels of stress than men (Hogan, Carlson & Dua, 2002; Ptacek, smith & Zanas, 1992; Tamres2002). Ng and Jeffrey (2003) who reported that females are more likely to be stressed than men.

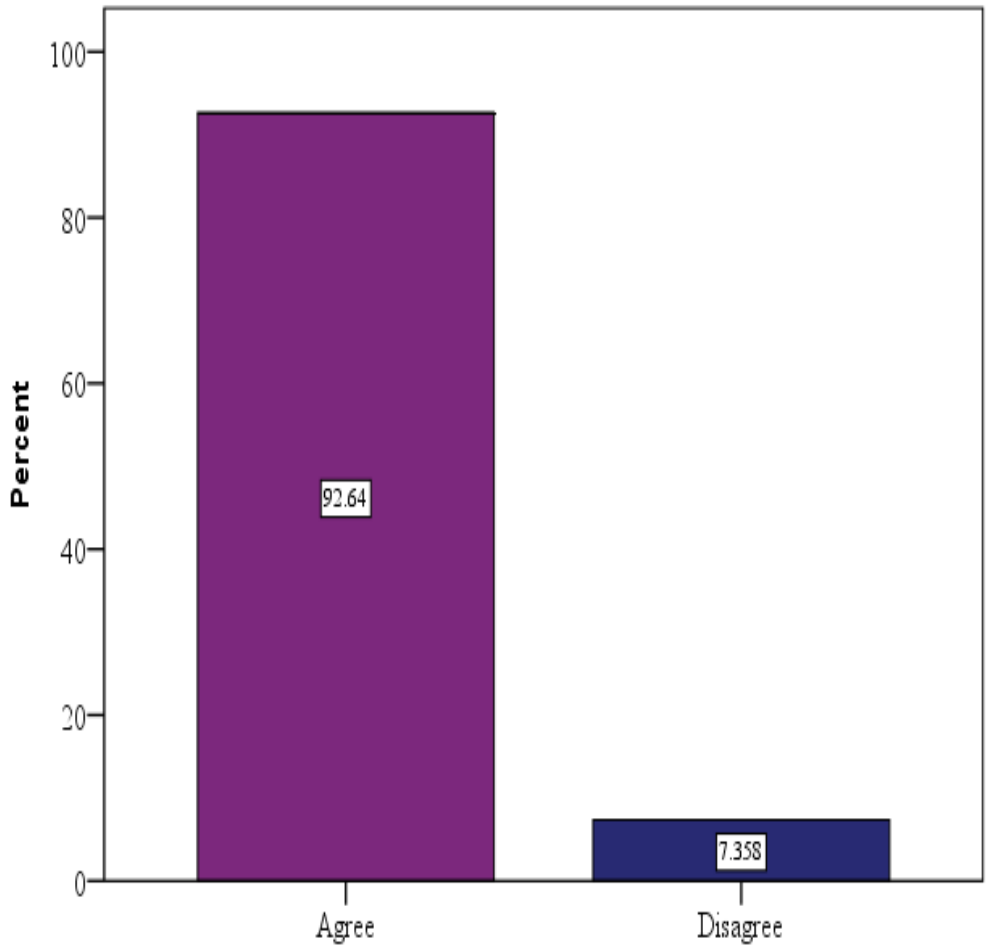
Figure 4. 5: Gender and stress



Source: Field Questionnaire n = 299

In Figure 6. A higher number of student-athletes 277 (92.642%) agreed that females manage stress from competitive sports than males while 22 (7.358%) disagreed with the statement. The findings indicate that though females suffer stress from competitive sports than males they were good at managing the stress than their male counterparts. These findings were in support of findings of Herman (2019) who stated that females cope and manages sports stress than males.

Figure 4. 6: Gender and Stress Management



Source: Field Questionnaire n = 299

4.4.2 Hypothesis Testing

To find out if the demographic characteristics have a statistically significant relationship with stress coping strategies among student-athletes in Colleges of Education in Ghana, a set of sub-null hypotheses were formulated from $H_0$1. The $H_0$1 and sub-null hypotheses are as follows:

$H_0$1. Demographic characteristics have no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.

i. *$H_0$1.1:* Sex has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
ii. *$H_0$1.2:* Age has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
iii. *$H_0$1.3*: Level has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.

The sub-null hypothesis ($H_0$1.1) was tested using One-Away ANOVA to establish if the group means were equal at a 0.05 level of significance. Table 4.1 displays the findings.

Table 4. 1: One-Way ANOVA Results on Gender and Stress Management among Student-Athletes in Colleges of Education in Ghana

	Sum of Squares	**df**	**Mean Square**	**Sig.**
Between Groups	6.382	1	6.382	.001
Within Groups	68.267	297	.230	
Total	**74.649**	**298**		

Source: Field Questionnaire n = 298

Table 4.1 explains the one-way ANOVA findings which established the relationship between the gender and stress management among student-athletes in Colleges of Education in Ghana. The findings disclosed that there was a statistically significant mean difference between the groups, F (297) = 6.382 p = .01, α =.05 where p<0.05. Therefore, the sub-null hypothesis (*H_o1.1)* which states that the gender has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana was rejected. The study, therefore, concluded that the gender has statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.

A one-way ANOVA was used to test *(Ho1.2)* which aimed to test the relationship between age has statistically significant relationship with stress management

among student-athletes in Colleges of Education in Ghana. The findings are shown in Table 4.2.

Table 4. 2: One-Way ANOVA Results on Age and Stress Management among Student-Athletes in Colleges of Education in Ghana

	Sum of Squares	**df**	**Mean Square**	**Sig.**
Between Groups	10.204	1	10.204	.001
Within Groups	161.314	297	.543	
Total	**171.518**	**298**		

Source: Field Questionnaire n = 298

Table 4.2 describes the one-way ANOVA findings which were to establish the relationship between age and stress management among student-athletes in Colleges of Education in Ghana. The findings showed that there was a statistically significant mean difference between the groups, F (297) = 10.204, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o1.2)* which states that age has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana. The study, therefore, concluded that age has statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.

The sub-null hypothesis *(Ho1.3)* which was intended to test the relationship between level and stress management among student-athletes in Colleges of

Education in Ghana was tested using one-way ANOVA. The findings are shown in Table 4.3.

Table 4. 3: One-Way ANOVA Results on Level and Stress Management among Student-Athletes in Colleges of Education in Ghana

	Sum of Squares	**df**	**Mean Square**	**Sig.**
Between Groups	20.088	1	20.088	.001
Within Groups	169.986	297	.572	
Total	**190.074**	**298**		

Source: Field Questionnaire n = 298

Table 4.3 indicates the one-way ANOVA results which were to establish the relationship between level and stress management among student-athletes in Colleges of Education in Ghana. The results indicated that there was a statistically significant mean difference between the groups, F (297) = 20.088, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o1.3)* which states that level has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana. The study, therefore, concluded that level has statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.

4.4.3 Qualitative Data

The qualitative data obtained from tutors of Colleges of Education in Ghana indicated there were demographic difference demographic in stress coping and management among student-athletes in Colleges of Education in Ghana.

The respondent lecturer **A** indicated that:

> *I may say the females accumulate a lot of stress from competitive sports than males but interesting they cope or manage the stress better than males. Student-athletes between the ages of 26-30 suffer more stress but unfortunately other age group cope and manage stress than them.*

The respondent lecturer **B** revealed that:

> *Level 100 student-athletes are more stressed than other levels. About the coping and management, the 200-400 student-athletes cope and manage stress from competitive sports than level 100 student-athletes. This is due to experience in coping and managing stress.*

Source: Field Interview

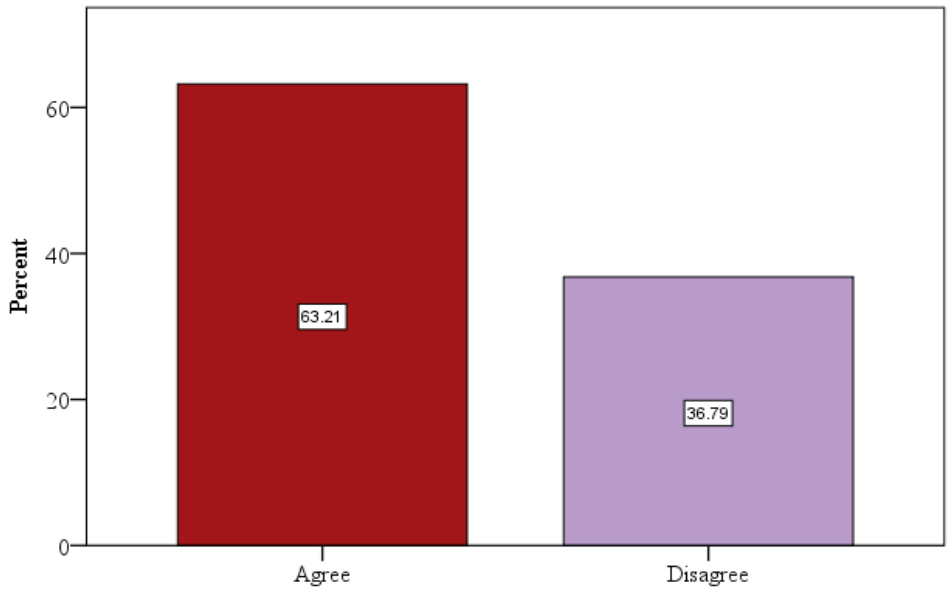
4.5 To Establish the Sporting Stress Linked to the Academic Performance of Student-Athletes in Colleges of Education.

This objective was to establish the sporting stressors linked to the academic performance of student-athletes in Colleges of Education in Ghana. Five items were created on a five-point Likert scale to measure the independent variables (sporting stress). To achieve this objective, the researcher carried out descriptive and inferential statistics analysis then followed by qualitative data analysis.

4.5.1 Descriptive Data Analysis

The sporting stressors are very important because they can influence the academic performance of student-athletes in Colleges of Education in Ghana. Student-athletes were asked to indicate their level of agreement or disagreement with statements. The results in Figure 4.7, show that the majority of the student-athletes 189 (63.21%) agreed that the stress of injury and illness from competitive sports affects their academic performance while the lower number 110 (36.79%) disagreed with the statement. The findings mean that stress of injury and illness from competitive sports affects academic performance of student-athletes in Colleges of Education in Ghana.

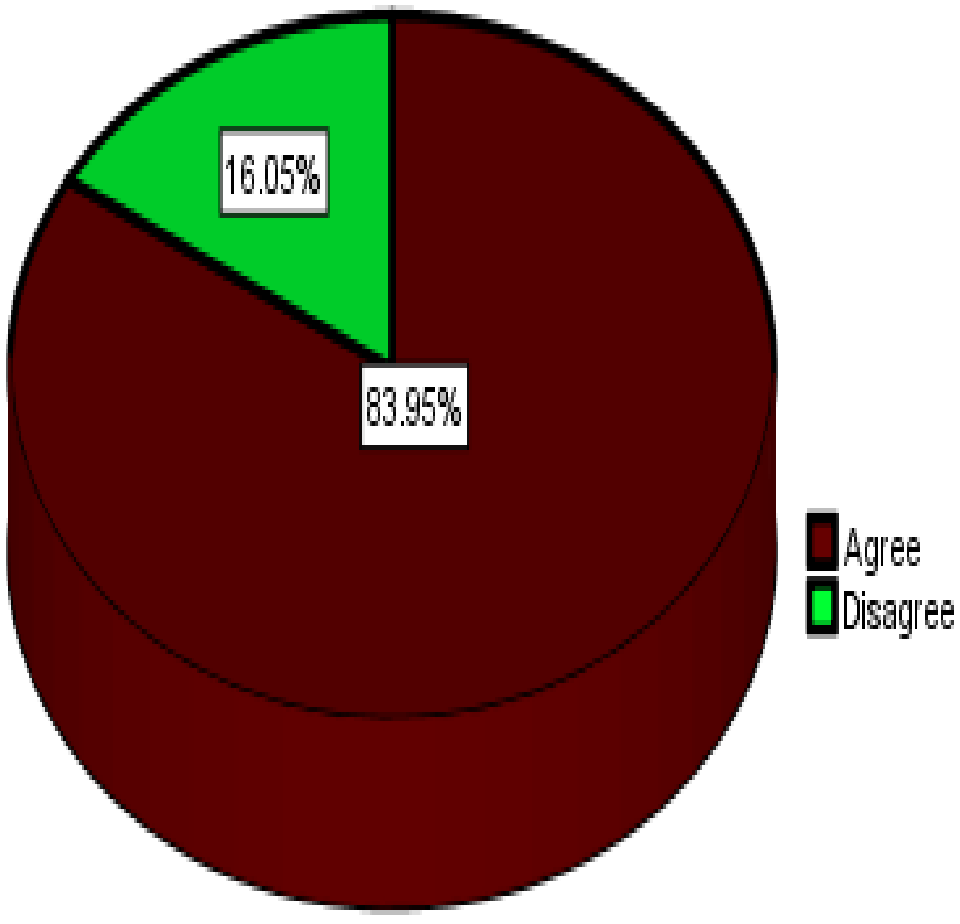
Figure 4. 7: Stress of Injury and Illness from Competitive Sports and Academic Performance of Student-Athletes



Source: Field Questionnaire n = 299

The findings in Figure 4.8 also indicate that a higher number 251 (83.95%) of the student-athletes were in agreement that Camping during competitive sports affects their academic performance whilst 48 (16.05%) were not in agreement with the statement.

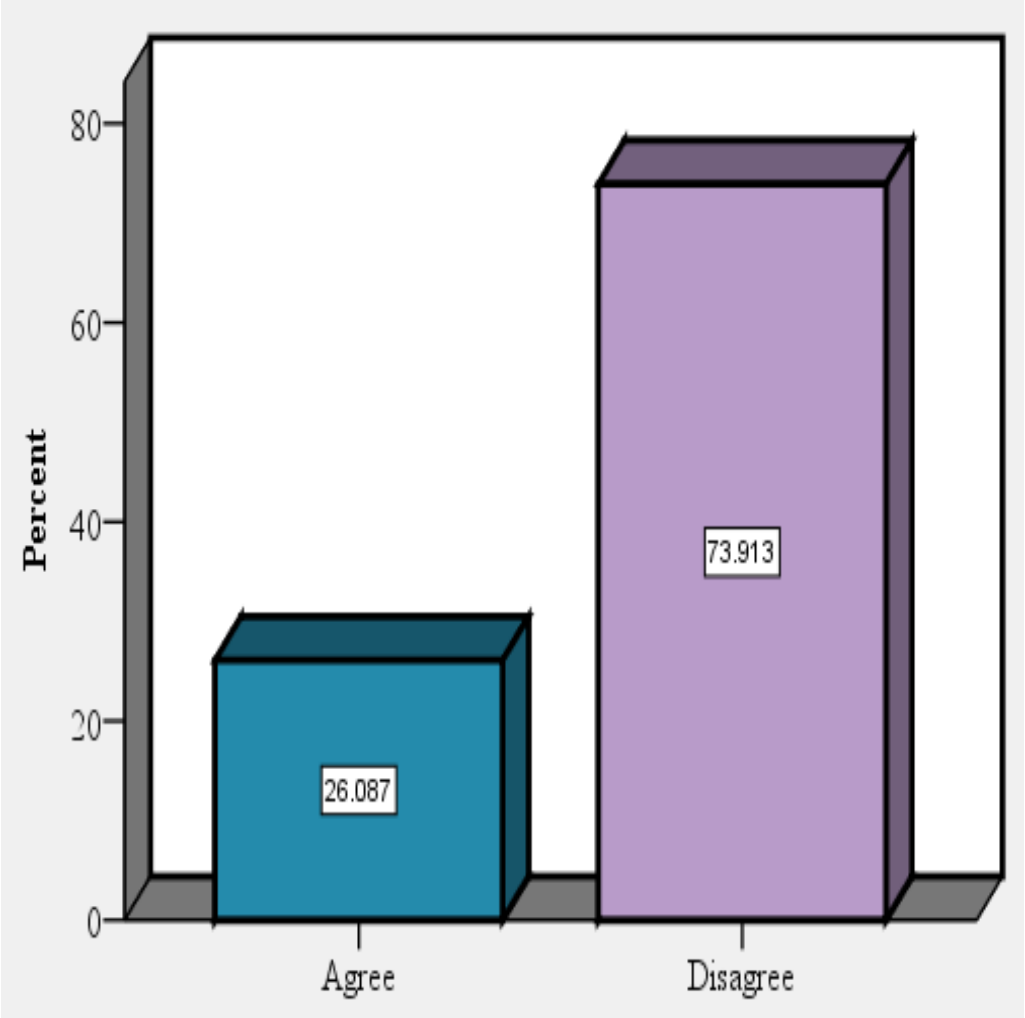
Figure 4. 8: Camping During Competitive Sports and Academic Performance of Student-Athletes



Source: Field Questionnaire n = 299

In Figure 4.9, the majority of the respondents 221 (73.913) disagreed with the statement that a long journey traveling to competitive sports hosting places affects their academic performance while 78 (26.087%) agreed that a long journey traveling to competitive sports hosting places affects their academic performance.

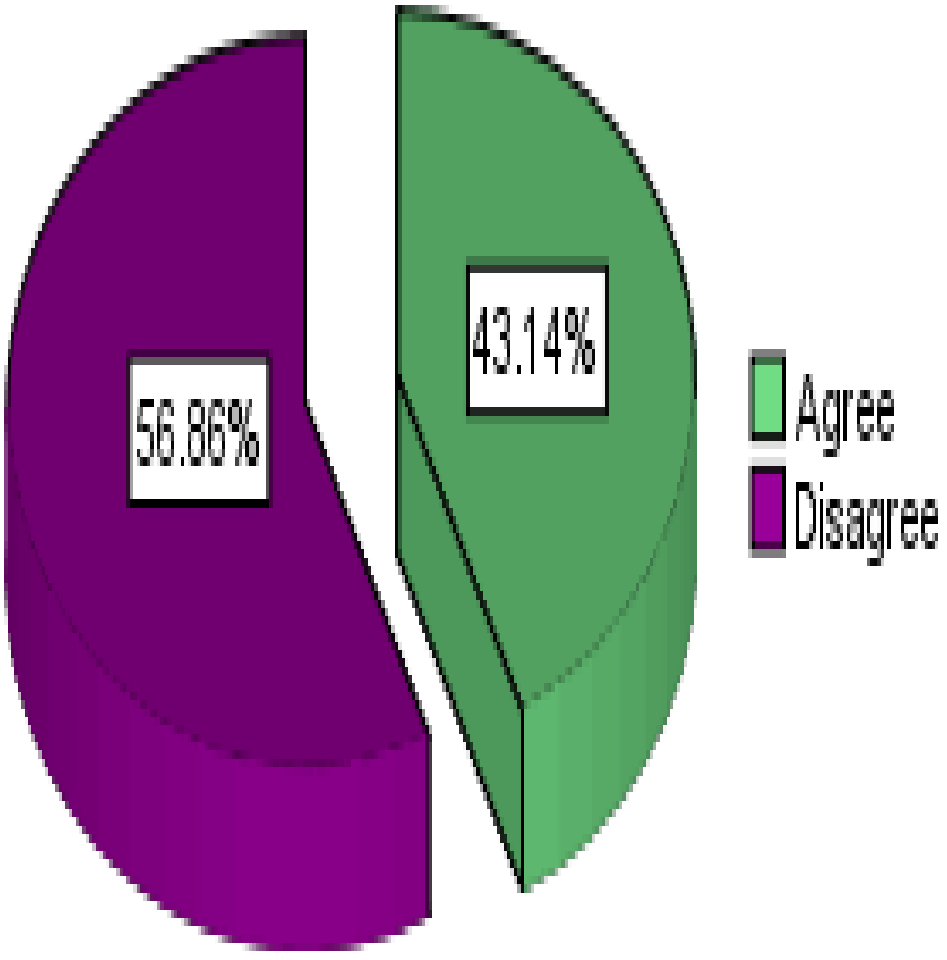
Figure 4. 9: Long Journey Traveling to Competitive Sports Hosting Places and Academic Performance of Student-Athletes



Source: Field Questionnaire n = 299

The findings in Figure 4.10 indicate that the mainstream 170 (56.86%) of the student-athletes were not in agreement that pressures of competitive sports participation affect their academic performance while 129(43.14%) agreed with the statement.

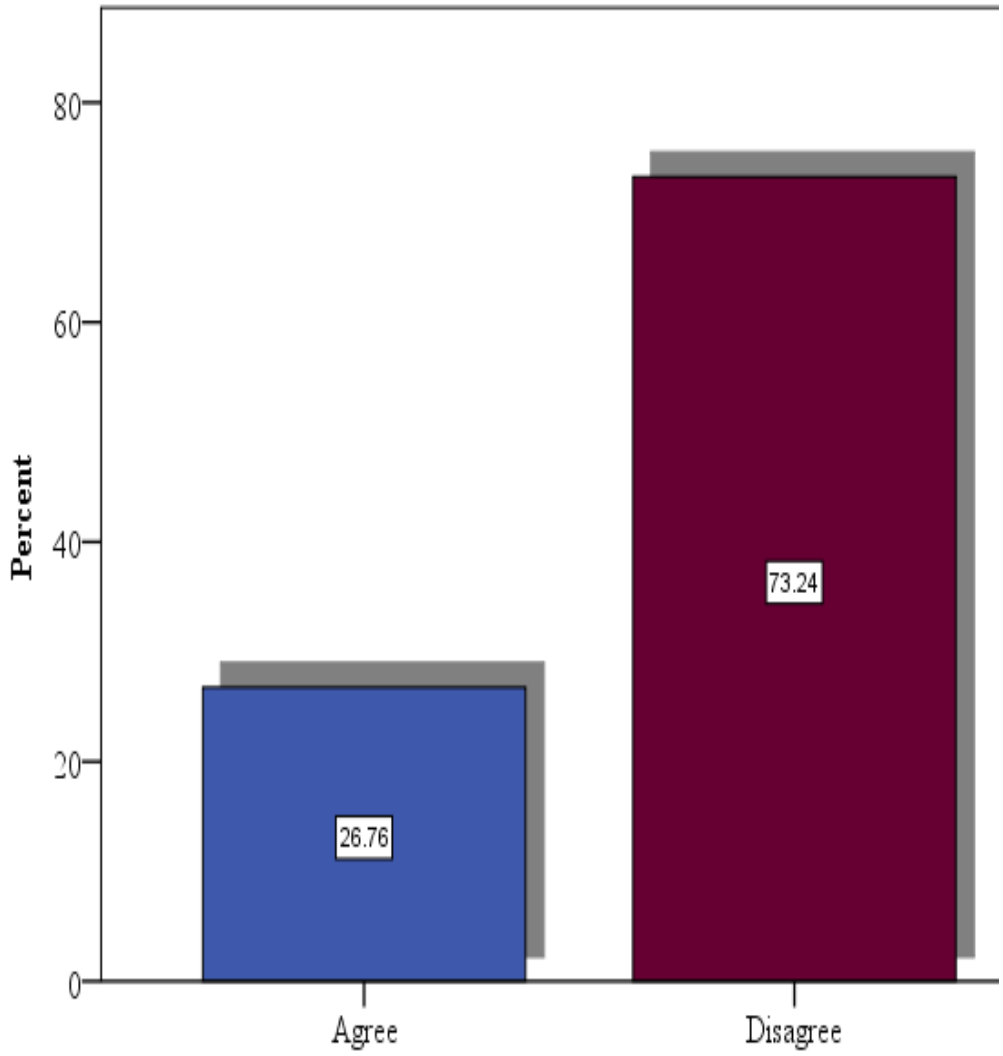
Figure 4. 10: Pressure from Competitive Sports and Academic Performance of Student-Athletes



Source: Field Questionnaire n = 299

The results in Figure 4.11 show that the majority 219 (73.3%) of the student-athletes disagreed with the statement that training for competitive sports affects their academic performance whilst fewer number 80 (26.7%) agreed with the statement.

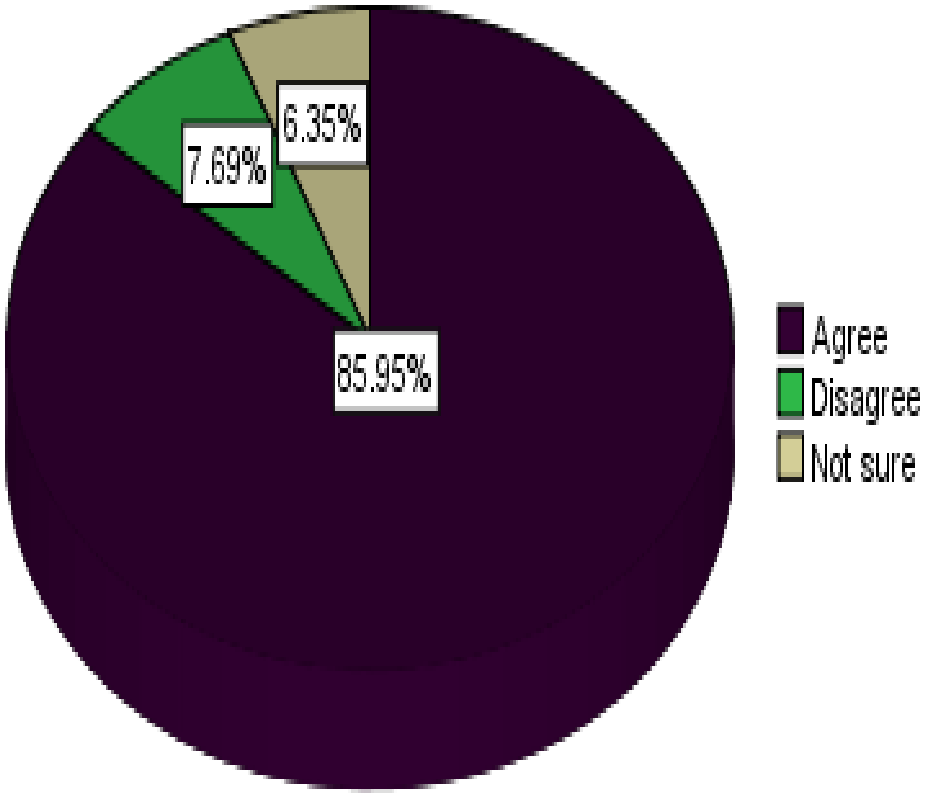
Figure 4. 11: Training for Competitive Sports and Academic Performance of Student-Athletes



Source: Field Questionnaire n = 299

The findings in Figure 4.12, indicate that the majority of the student-athletes 257 (85.95%) agreed that the stress from the coaches during competitive sports affects their academic performance while the lower number 23 (7.69%) disagreed with the statement. The study further revealed that 19(6.35%) of the student-athletes were not sure of the statement. The findings mean that stress from the coaches during competitive sports affects academic performance of student-athletes in Colleges of Education in Ghana.

Figure 4. 12: Stress from Coaches and Academic Performance of Student-Athletes



Source: Field Questionnaire n = 299

4.5.2 Hypothesis Testing

To establish if sporting stress has a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana. a set of sub-null hypotheses were formulated from $H_0$2. The $H_0$2 and sub-null hypotheses were as follows:

$H_0$2: Competitive sports stressors have no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

i. *$H_0$2.1:* The stress of injury and illness from competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.
ii. *$H_0$2.2*: Camping during competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.
iii. *$H_0$2.3:* Long journey traveling to competitive sports hosting places has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.
iv. *$H_0$2.4:* Pressure of competitive sports participation has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.
v. *$H_0$2.5:* Training for competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

The sub-null hypothesis *($H_0$2.1)* was tested using a one-way ANOVA. This statistical tool was used because the independent variables involved had more than three levels. The sub-null hypothesis *($H_0$2.1)* was tested to establish if the group means were equal at a 0.05 level of significance. Table 4.4 displays the findings

Table 4. 4: One-Way ANOVA Results on the Stress of Injury and Illness from Competitive Sports and Academic Performance of Student-Athletes

	Sum of Squares	**df**	**Mean Square**	**Sig.**
Between Groups	2.047	3	.682	.001
Within Groups	17.619	295	.060	
Total	**199.666**	**298**		

Source: Field Questionnaire n = 298

Table 4.4 explains the one-way ANOVA findings which established the relationship between the stress of injury and illness from competitive sports and the academic performance of student-athletes in Colleges of Education in Ghana. The findings disclosed that there was a statistically significant mean difference between the groups, F (295) = 0.682 p = .01, α =.05 where p<0.05. Therefore, the sub-null hypothesis (*H_o2.1)* which states the stress of injury and illness from competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana was rejected.

The study, therefore, concluded that the stress of injury and illness from competitive sports has a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana. A one-way ANOVA was used to test *(Ho2.2)* which aimed to test the relationship between Camping during competitive sports and the academic performance of student-athletes in Colleges of Education in Ghana. The findings are presented in Table 4.5.

Table 4. 5: One-Way ANOVA Results on Camping During Competitive Sports and Academic Performance of Student-Athletes

	Sum of Squares	**df**	**Mean Square**	**Sig.**
Between Groups	12.166	3	4.055	.001
Within Groups	7.500	295	.025	
Total	**19.666**	**298**		

Source: field questionnaire n = 298

Table 4.5 describes the one-way ANOVA results which were to establish the relationship between camping during competitive sports and the academic performance of student-athletes in Colleges of Education in Ghana. The results revealed that there was a statistically significant mean difference between the groups, F (295) = 4.055, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o2.2)* which states that camping during competitive sports has no statistically significant influence on the academic

performance of student-athletes in Colleges of Education in Ghana. The study, therefore, concluded that camping during competitive sports has a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

A one-way ANOVA was used to test *(Ho2.3)* which aimed to test the relationship between long journeys traveling to competitive sports hosting places and the academic performance of student-athletes. The results are illustrated in Table 4.6.

Table 4. 6: One-Way ANOVA Results on a Long Journey Traveling to Competitive Sports Hosting Places and the Academic Performance of Student-Athletes

	Sum of Squares	**df**	**Mean Square**	**Sig.**
Between Groups	1.552	3	.517	.001
Within Groups	18.113	295	.061	
Total	**19.666**	**298**		

Source: field questionnaire n = 298

Table 4.6 explains the one-way ANOVA findings which were to establish the relationship between long journeys traveling to competitive sports hosting places and the academic performance of student-athletes. The results revealed that there was a statistically significant mean difference between the groups, $F(295) = .517$, $p = .01$, $\alpha = .05$ where $p<0.05$. The study, therefore, rejected the sub-null

hypothesis ($H_o 2.3$) which states that a long journey traveling to competitive sports hosting places has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana. The study, therefore, concluded that long journey traveling to competitive sports hosting places has a statistically significant influence on the academic performance of student-athletes.

A one-way ANOVA was used to test *(Ho2.4)* which was to find out if the pressure of competitive sports participation has a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

The results are illustrated in Table 4.7.

Table 4. 7: One-Way ANOVA Results on the Pressure of Competitive Sports and Academic Performance of Student-Athletes

	Sum of Squares	**df**	**Mean Square**	**Sig.**
Between Groups	1.938	3	.646	.001
Within Groups	17.727	295	.060	
Total	**19.666**	**298**		

Source: Field Questionnaire n = 298

Table 4.7 clarifies the one-way ANOVA results which were to establish the relationship between the pressure of competitive sports and the academic performance of student-athletes. The results discovered that there was a

statistically significant mean difference between the groups, F (295) = .646, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o2.4)* which states that pressure of competitive sports participation has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana. The study, therefore, concluded that the pressure of competitive sports participation has a statistically significant influence on the academic performance of student-athletes.

A one-way ANOVA tested *(Ho2.5)* was to ascertain the relationship between stress from training for competitive sports and the academic performance of student-athletes. Table 4.8. presented the findings.

Table 4. 8: One-Way ANOVA Results on Training for Competitive Sports and Academic Performance of Student-Athletes.

	Sum of Squares	**df**	**Mean Square**	**Sig.**
Between Groups	.485	3	.162	.001
Within Groups	19.180	295	.065	
Total	**19.666**	**298**		

Source: Field Questionnaire n = 298

Table 4.8 illuminates the one-way ANOVA results which were to establish the relationship between training for competitive sports and the academic performance of student-athletes. The results discovered that there was a statistically significant mean difference between the groups, F (297) = 192.589, p

= .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o2.5)* which states that training for competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

The study, therefore, concluded that training for competitive sports has a statistically significant influence on the academic performance of student-athletes.

4.5.3 Discussion of Qualitative Data

The interview conducted with sports lecturers of Colleges of Education revealed that stress of injury and illness from competitive sports, camping during competitive sports, long journey traveling to competitive sports hosting places, pressures of competitive sports participation, training for competitive sports, stress from the coach during competitive sports participation and conflict with the referee & spectators during competitive sports participation are stressor that were linked to academic performance of student-athletes in Colleges of Education in Ghana.

The respondent lecturer **C** indicated that:

> *I may say in my opinion stressors affect student-athletes in two ways. Thus, positive and negative. Talking about the positive, the stressors make students active and about the negative aspect, stress of injury and illness from competitive sports, camping during competitive sports, long journey traveling to competitive sports hosting places, pressures of competitive sports participation, training for competitive sports make them loose teaching and learning contact hours.*

The respondent lecturer **D** indicated that:

> *Conflict with coaches, referee and spectators during competitive sports participation affect the academic performance of the student-athletes. The conflicts from coaches especially in regards to inflexibility around training schedules, bias referee and behaviour of spectates when student athletes make mistakes during competitive sports sometimes stress student-athletes to extent that they are unable to concentrate on their academic works even after competitive sports.*

Source: Field Interview

4.6 To Assess the Influences of Stress on the Academic Performance of Student-Athletes in Colleges of Education in Ghana.

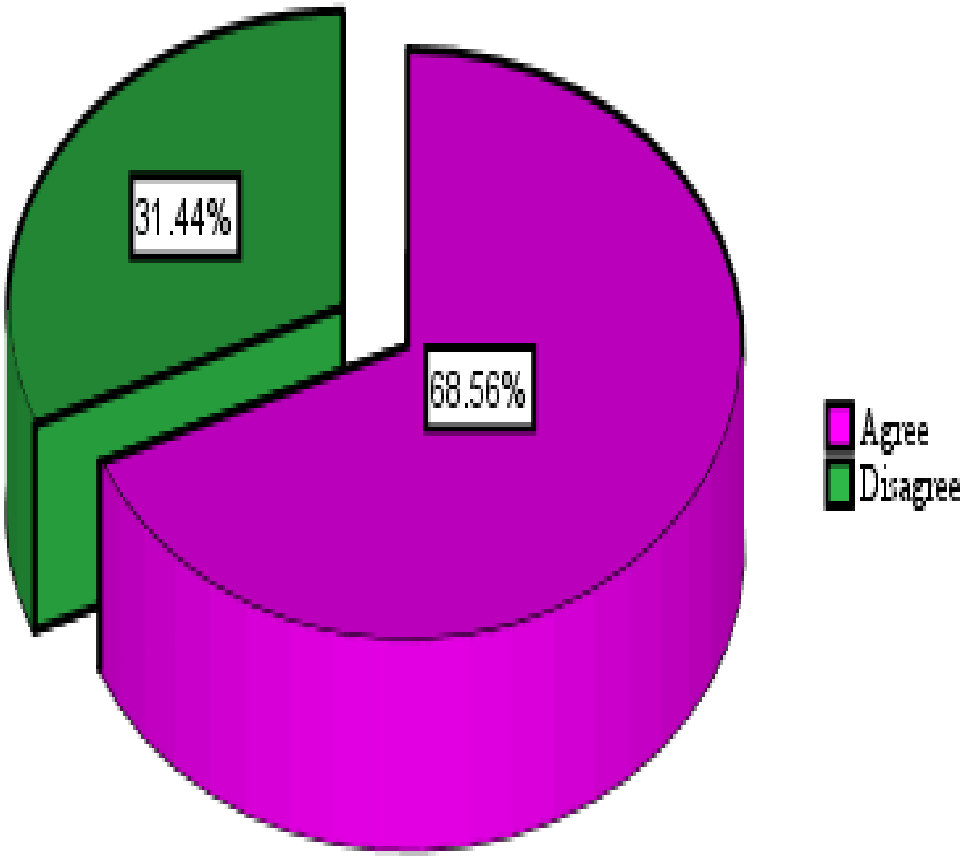
The third objective of this study was to assess the influences of stress on the academic performance of student-athletes in Colleges of Education in Ghana. To measure this objective, descriptive and inferential statistical analyses were done followed by qualitative data analysis. The student-athletes were asked to designate their level of agreement or disagreement with statements. The results of their responses are shown below.

4.6.1 Descriptive Data Analysis

This section provides data on the effects of stress from competitive sports and the academic performance of student-athletes. The majority of the student-athletes (68.56%) agreed that stress from competitive sports affects their academic performance whilst (31.44%) of them disagreed with the statement. The finding showed that stress from competitive sports participation has negative effects on

the academic performance of the student-athletes in Ghana Colleges of Education. Figure 4.13 provides a summary of the responses.

Figure 4. 13: Stress from Sports and Academic Performance of Student-Athletes.

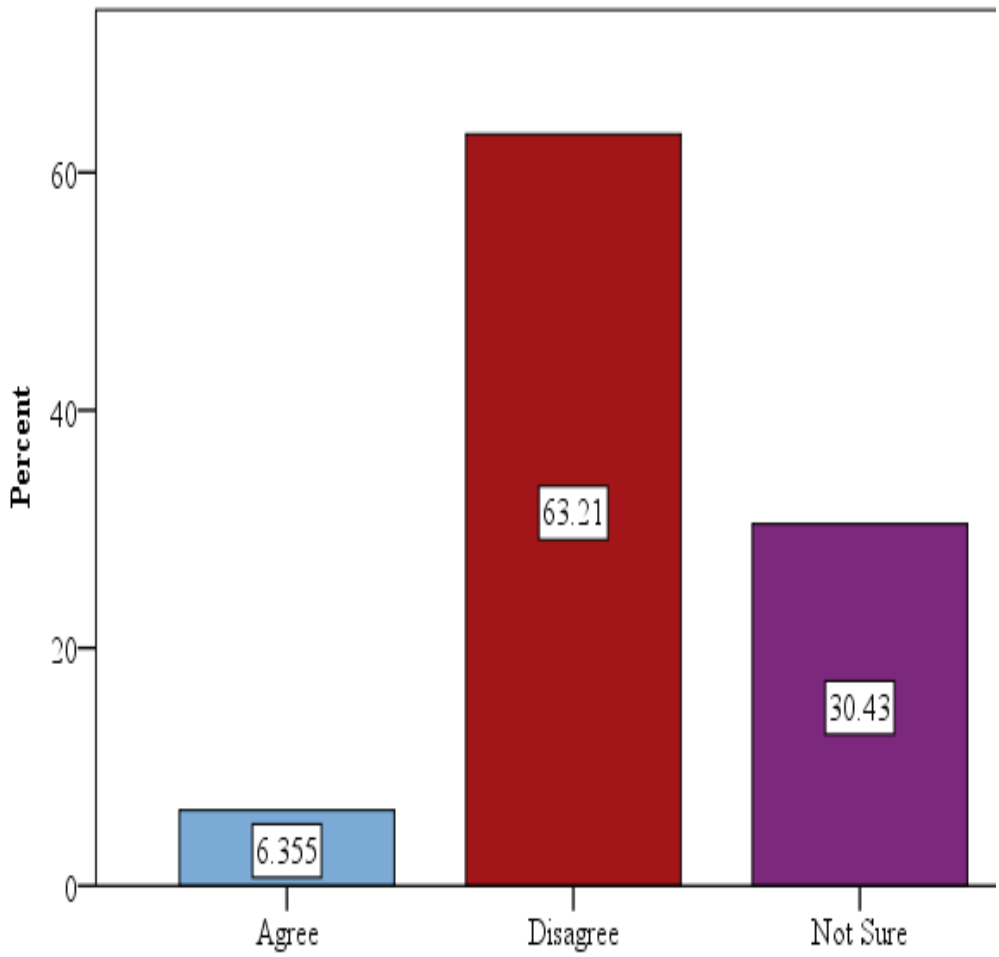


Source: field questionnaire n = 299

Findings from whether students who do not engage in competitive sports perform well academically than student-athletes because they do not suffer stress indicated that saw the majority of the respondents (63.21%) disagreed with the statement,

(30.43%) were not sure while (6.355%) agreed with the statement. The findings are indicated in Figure 4.14

Figure 4. 14: Results on Students Who Do Not Engage in Competitive Sports Perform Well Academically than Student-Athletes.

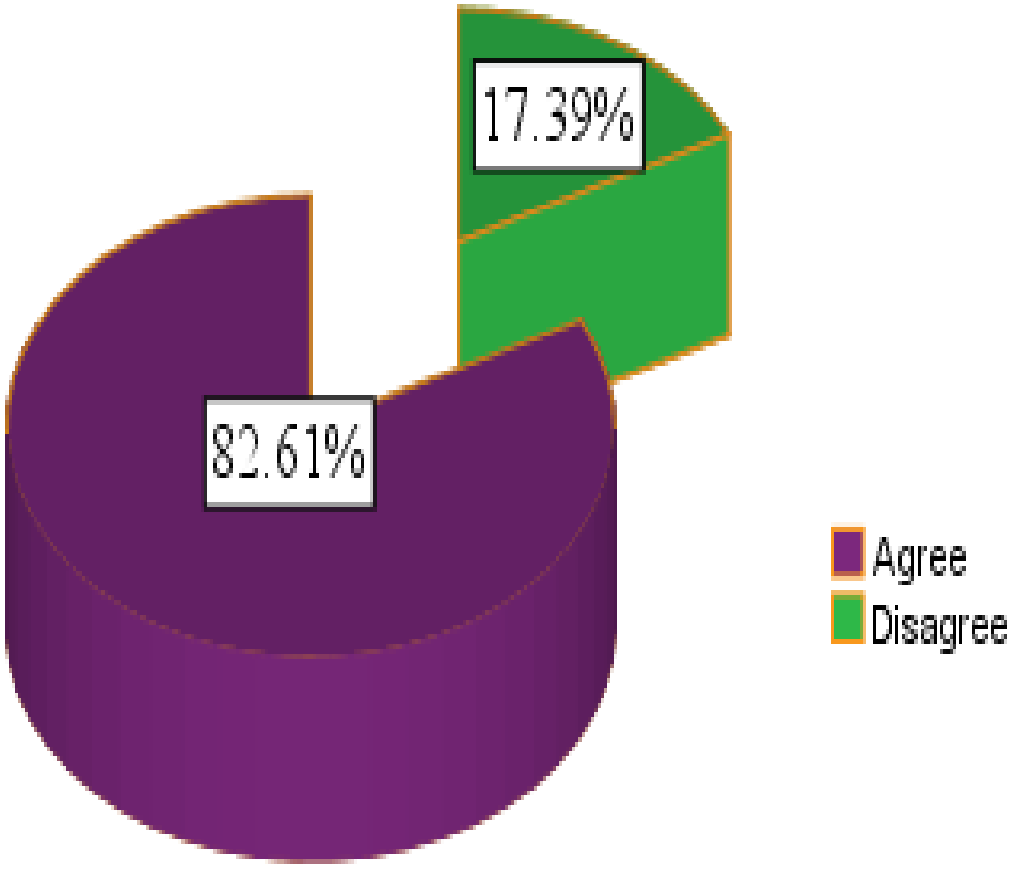


Source: Field Questionnaire n = 299

The results on if student-athletes focus on academic performance reduces stress from competitive sports indicated that a higher number 247 (82.61%) agreed with

the statement while 52 (17.39%) agreed with the statement. This finding showed that student-athletes were not stressed when they do not combine competitive sports participation with their academic activities hence, they perform better academically. Figure 4.15 displays the findings.

Figure 4. 15: Results on Student-athletes Focus on Academic Performance Reduces Stress from Competitive Sports

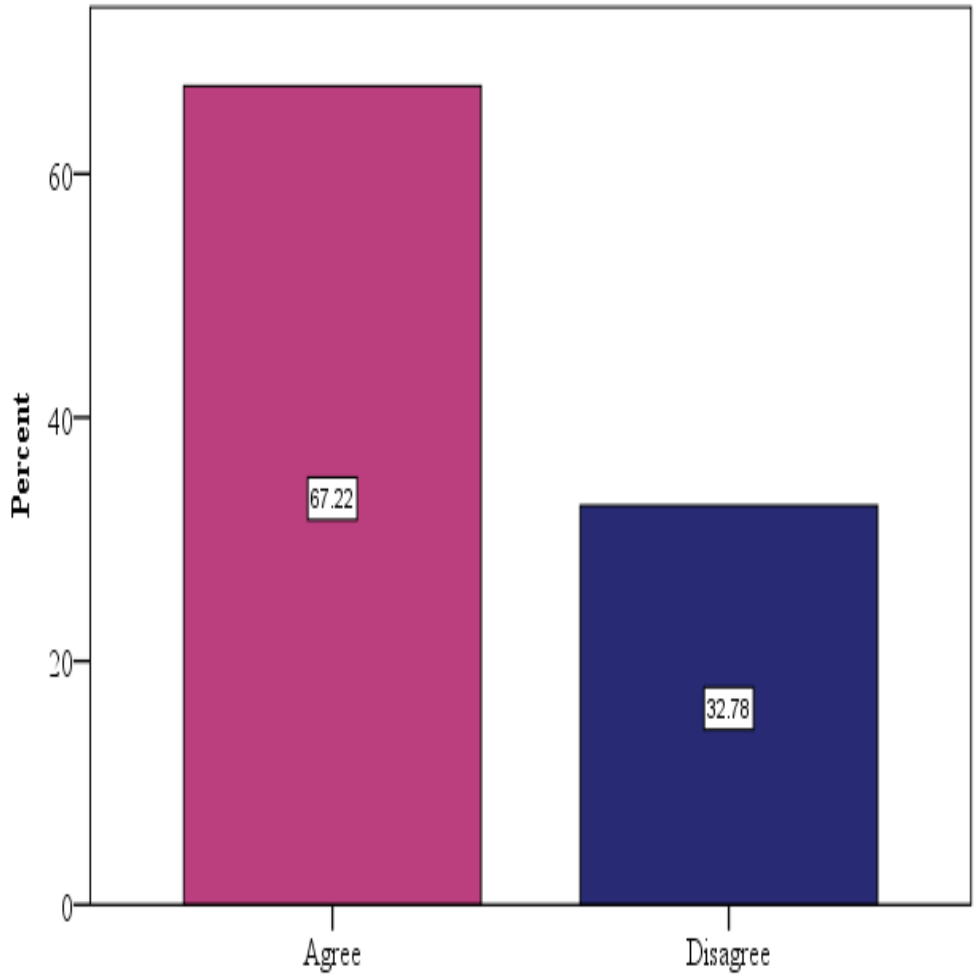


Source: Field Questionnaire n = 299

The findings on whether stress from competitive sports makes student-athletes easily feel edgy and worried during learning showed that the majority 201

(67.22%) agreed with the statement while 98 (32.78%) disagreed with the statement. The findings simply mean that stress from competitive sports makes student-athletes easily feel edgy and worried during learning. Figure 4.16 shows the findings.

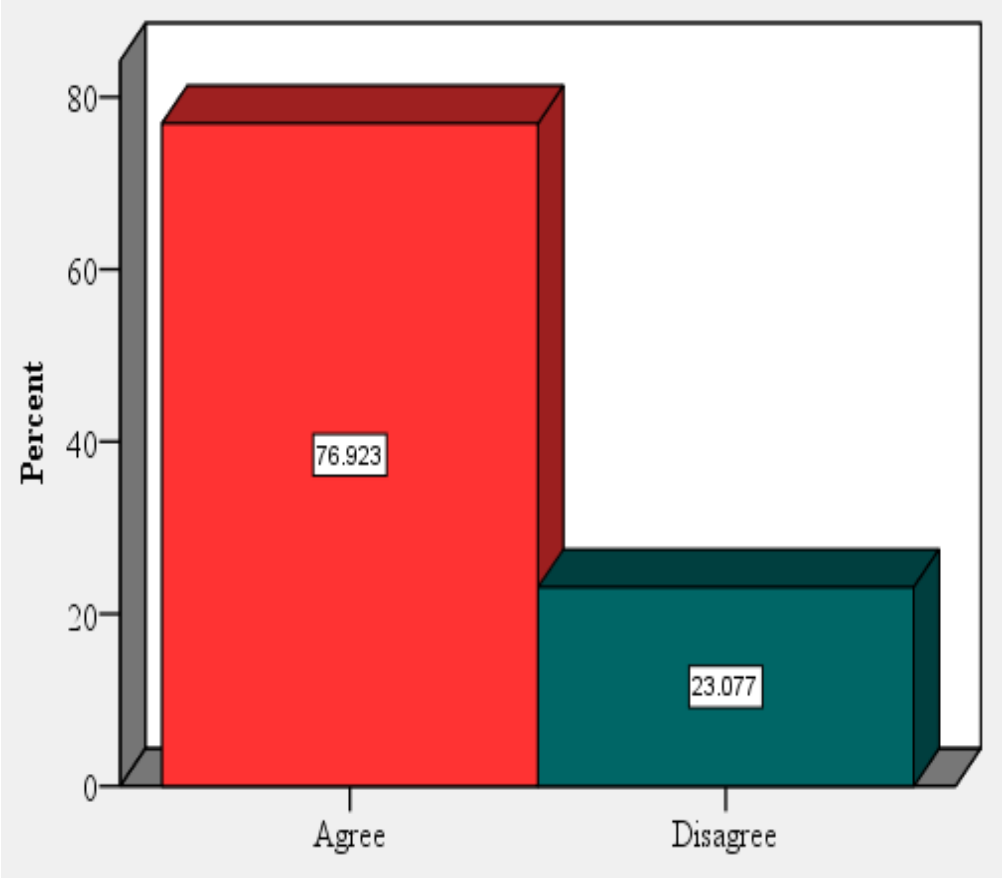
Figure 4. 16: Results on Stress from Competitive Sports Makes Student-Athletes Easily Feel Edgy and Worried During Learning.



Source: Field Questionnaire n = 299

In figure 4.17 majority 230 (76.923%) of the student-athletes agreed that they habitually realize it is not too easy to cope with academic activities due to stress from competitive sports participation whilst a fewer number 69 (23.077%) disagreed with the statement. The results indicate that student-athletes did not easily cope with academic activities due to stress from competitive sports participation.

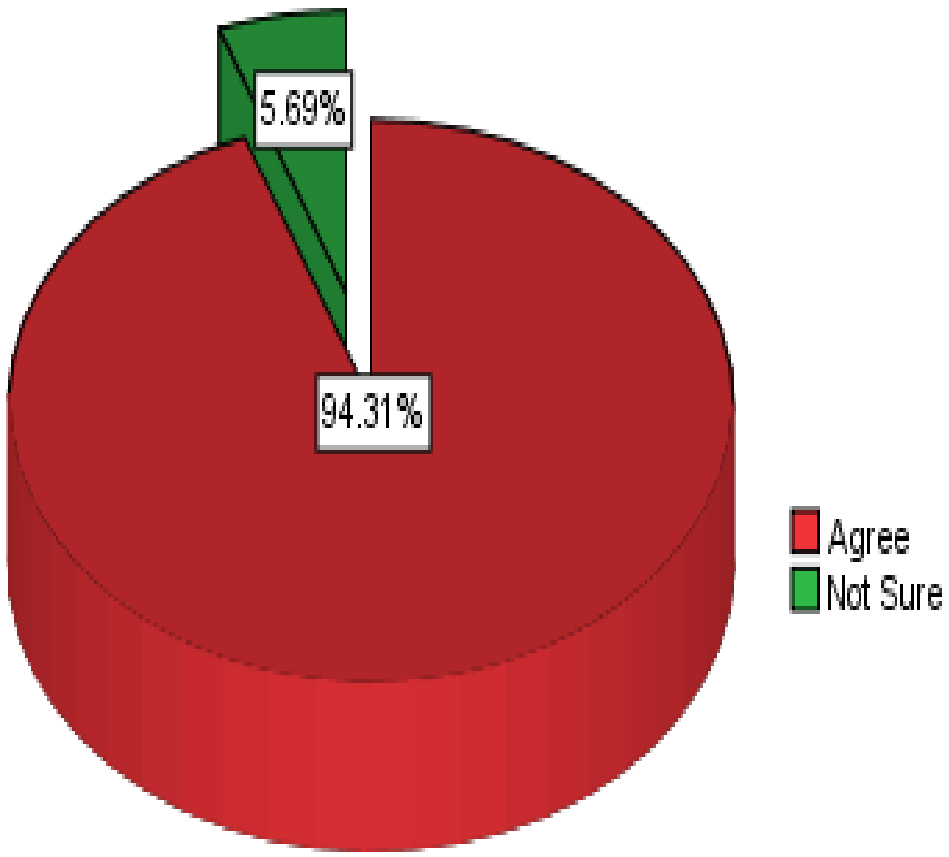
Figure 4. 17: Results on Difficulties in Coping with Academic Activities Due to Stress from Competitive Sports Participation



Source: Field Questionnaire n = 299

In figure 4.18 majority 282 (94.31%) of the student-athletes agreed that their academic performance may be good enough if they can manage or control stress from competitive sports whilst a smaller number of them 17 (5.69%) were not sure with the statement. The findings show that student-athletes can perform well if proper measures are put in place to help them manage their stress from competitive sports well.

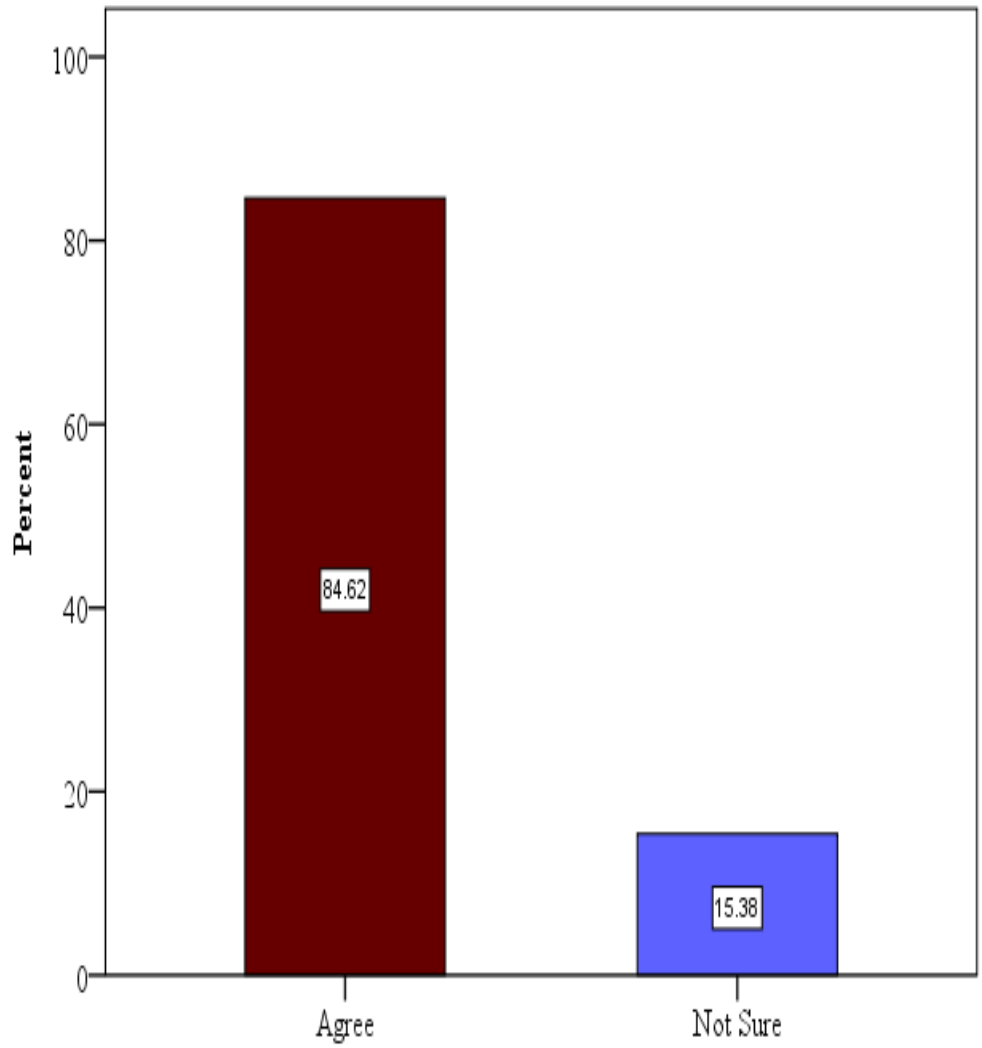
Figure 4. 18: Results on Stress Management and Academic Performance of Student-Athletes.



Source: Field Questionnaire n = 299

The results in figure 4.19 showed that majority 253 (84.62%) of the student-athletes agreed that Sports can really give stress that can reduce your GPA whilst a lesser number of them 46 (15.38%) were not sure with the statement. The findings show Sports can really give stress that can reduce your GPA of student-athletes.

Figure 4. 19: Results on Participation in Competitive Sports and Student-Athletes GPA



Source: Field Questionnaire n = 299

4.6.2 Hypothesis Testing

To establish if stress from competitive sports has a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana, a set of sub-null hypotheses was formulated from $H_0$3. The $H_0$3 and sub-null hypotheses were as follows:

$H_0$3. Competitive sports stress has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

i. *$H_0$3.1* Good stress management has no statistically significant influence on the academic performance of student-athletes.
ii. *$H_0$3.2* Stress from competitive sports has no statistically significant influence on student-athletes edgy and worried during learning.

$H_0$3.1 was to establish if good stress management has no statistically significant influence on the academic performance of student-athletes. To test *$H_0$3.1* Point-biserial correlation coefficient was used. The results are presented in Table 4.9

Table 4. 9: Point-Biserial Results on the Influence of Good Stress Management on Academic Performance of Student-Athletes.

Variable	Point-Biserial Correlation (*r*)	Sig. (2-tailed)
H02.1 Good stress management has no statistically significant influence on the academic performance of student-athletes.	.531**	.001

*****. Correlation is significant at the 0.01 level (2-tailed). N= 299***

Source: Field Questionnaire n = 299

The findings in Table 9 show that good stress management has a statistically significant influence on the academic performance of student-athletes (r = .531, n = 299, p =. 01). *$H_0$3.1* which states good stress management has no statistically significant influence on academic performance of student-athletes was rejected and the conclusion was that good stress management has a statistically significant influence on academic performance of student-athletes.

$H_0$3.2 was to ascertain if stress from competitive sports has a statistically significant influence on student-athletes edgy and worried during learning. This sub-null hypothesis (*$H_0$3.2*) was tested using a Point-biserial correlation coefficient and the findings are presented in Table 10.

Table 4. 10: Point-Biserial Results on the Influence of Competitive Sports on Student-Athletes Edgy and Worried During Learning.

Variable	Point-Biserial Correlation (*r*)	Sig. (2-tailed)
H02.2 Stress from competitive sports has no statistically significant influence on student-athletes edgy and worried during learning.	.187**	.001

*****. Correlation is significant at the 0.01 level (2-tailed). N= 299***
Source: Field Questionnaire n = 299

The findings in Table 4.10 indicate that stress from competitive sports has a statistically significant influence on student-athletes edgy and worried during learning (*r* = .187, n = 299, *p* =. 01). The *$H_0$3.2* which states stress from

competitive sports has no statistically significant influence on student-athletes edgy and worried during learning was rejected. The study, therefore, concluded that stress from competitive sports has a statistically significant influence on student-athletes edgy and worried during learning.

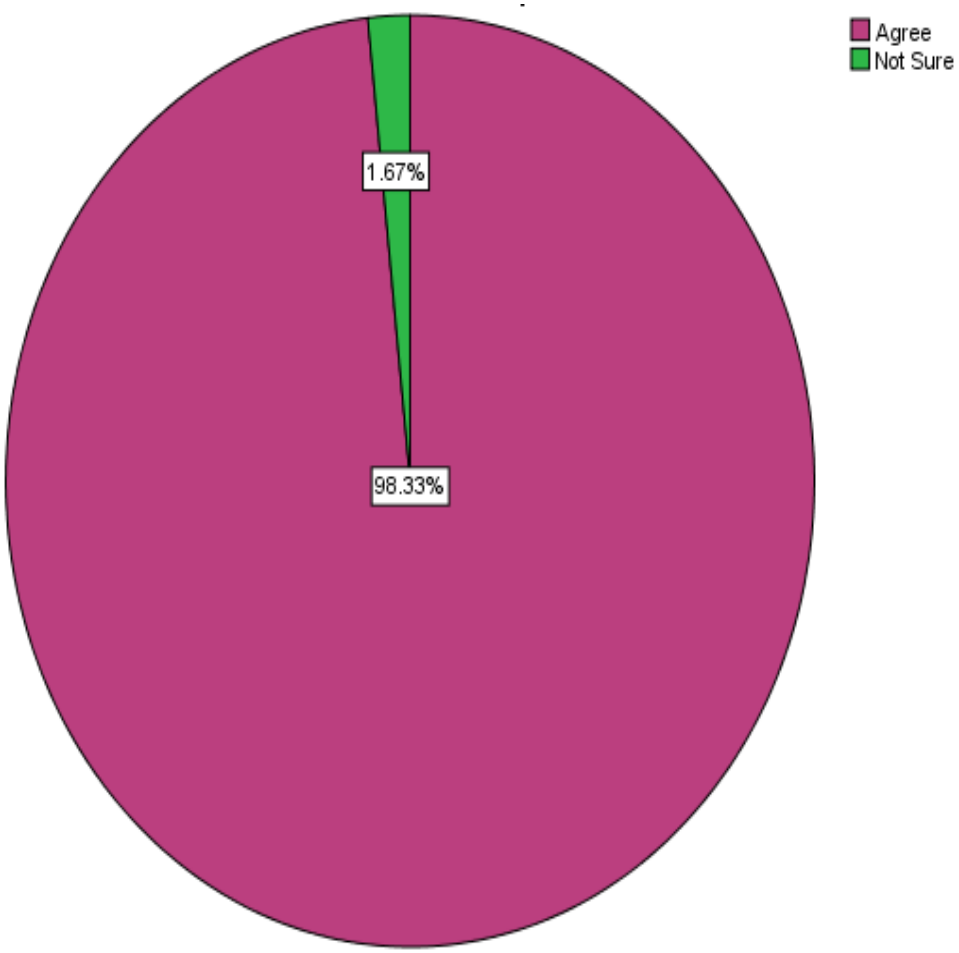
4.7 To Compare the GPA of Student-Athletes in the Year of Competitive Sports and the Year of No Competitive Sports in the Colleges of Education in Ghana.

The fourth objective of this study was to compare the GPA of student-athletes in the year of competitive sports and the year of no competitive sports in the Colleges of Education in Ghana. To achieve this objective, the researcher first performed descriptive analyses followed by qualitative data analysis (document analyses).

4.7.1 Descriptive Data Analysis

In figure 4 20, 294 (98.33%) of the student-athletes agreed that they performed well academically in the year of no competitive sports than in the year of competitive sports because they were not stressed in the year of no competitive sports while 5 (1.67%) were not sure of the statement. The findings implied that stress from competitive sports had negative effects on the academic performance of student-athletes in Colleges of Education in Ghana.

Figure 4. 20: Results of student-athletes performance in the year of competitive sports and years of no competitive sports



Source: Field Questionnaire n = 299

4.7.2 Documents Analyses

Document analysis was used to compare students' academic performance in the semester of no competitive sports and the semester of competitive sports. The analysis indicated that student-athletes performance better in the semester of no competitive sports than the semester of competitive sports participation because

they did not suffer stress in the semester of no competitive sports. The results from the document analysis are presented in Table 4.11 in appendix C.

4.8 Discussion of the Findings

This section discusses the results of the study as presented under the various objectives. The discussion is organised under the following objectives:

i. To determine the possibilities of a demographic difference in stress coping among student-athletes in Colleges of Education in Ghana.
ii. To determine sports stressors that are linked to the academic performance of student-athletes in Colleges of Education.
iii. To find out if stress from sports affect the academic performance of student-athletes in Colleges of Education in Ghana.
iv. To compare the grade point average of student-athletes in the semester of competitive sports and the semester of no competitive sports in the Colleges of Education in Ghana.
v. To propose an intellectual assessment model for Colleges of Education in Ghana

4.8.1: Objective one: To determine the possibilities of a demographic difference in stress coping among student-athletes in Colleges of Education in Ghana

Demographic difference in stress coping among student-athletes in Colleges of Education in Ghana. The study revealed that two hundred and seventy-seven

(277) of the student-athlete respondents agreed that in terms of gender, female student-athletes accumulate a lot more stress from competitive sports than males, but interestingly, the same females were found to cope with or manage their stress better than the males, while twenty-two (22) of the student-athletes disagreed with the statement. On the issue of age, the study revealed that the older students-athletes who were twenty (26) years and above were the in majority one hundred and fifty-five (155) as compared to ninety-two (92) who were between twenty (20) and twenty-six (26), and fifty-two (52) who were below twenty (20) years, suffered more stress from participating in competitive sports in college of education in Ghana. Also, with the level of student-athletes, the study revealed that one hundred and eight (108) which was in the majority were in level three hundred (300), while as one hundred and seven (107) were in level two hundred (200) and eight-four (84) in level one hundred (100). This indicated that the higher the level of the athlete, the higher stress experienced.

The findings of the study revealed that there was a demographic difference in stress coping and management among student-athletes in Colleges of Education in Ghana. The hypothesis $H_0$1 formulated from the first objective was to find out if demographic characteristics have a statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana. The study discovered that there was a significant gender difference in stress coping strategies among colleges of education students-athletes because the *p*-values of the variables tested were less than 0.05. These findings were supported by

Herman (2019) who stated that females cope and manage sports stress than males. Some other studies have found demographic differences in stress coping among student-athletes. A study conducted by Patton, Watson, and McCaul on 301 NCAA Division III student-athletes found demographic differences in stress coping strategies. The study revealed that female student-athletes were more likely to use emotion-focused coping strategies, while male student-athletes were more likely to use problem-focused coping strategies (Patton et al., 2014).

Another study by Kim and Dibenedetto (2012) found that student-athletes from minority backgrounds reported higher levels of stress due to discrimination and used maladaptive coping strategies such as substance abuse more frequently than their non-minority counterparts. The study further revealed that student-athletes between the ages of twenty-six to thirty (26-30) suffer more stress, but unfortunately, other age groups cope and manage stress better than them. Again, in the study, it was found that Level hundred (100) student-athletes are more stressed than levels two hundred (200) and three hundred (300). In coping and management, the level two hundred and three hundred (200 & 300) student-athletes cope and manage stress from competitive sports better than the level hundred (100) student-athletes. This is due to the experience gained in coping with and managing stress from competitive sports in the past years.

Also, a study by Capranica et al. (2016) that examined stress coping mechanisms among college student-athletes in Italy also found that older athletes tended to use

problem-focused coping strategies more frequently than younger athletes. Additionally, the study also noted that athletes from lower socioeconomic backgrounds were more likely to use avoidant coping strategies compared to their peers from higher socioeconomic backgrounds. These findings have confirmed that, those demographic factors such as gender, age and level of students-athletes in Colleges of Education in Ghana may also be influenced by social expectation and norms surrounding gender roles which can influence how the student-athletes cope with stress emanating from sports stress. It is therefore important for sports lecturers and coaches to consider these demographic differences when providing support and guidance to student-athletes in colleges of education in Ghana in managing stress.

The findings of the study revealed there were demographic difference in stress coping and management among student-athletes in Colleges of Education in Ghana. The study revealed that the female student-athletes accumulate a lot of stress from competitive sports than males but interestingly females cope or manage the stress better than males. The study also revealed that Student-athletes between the ages of 26-30 suffer more stress but unfortunately other age group cope and manage stress than them. Again, it was found that Level 100 student-athletes are more stressed than other levels. About the coping and management, the 200-400 student-athletes cope and manage stress from competitive sports than level 100 student-athletes. This is due to experience in coping and managing stress from sports.

4.8.2: Objective two: To determine the sports stressors linked to the academic performance of student-athletes in Colleges of Education

The study revealed that sports stressors affect student-athletes positively and negatively. It was found that the positive aspects of sports stressors generally make student-athletes active, while the negative aspects of sports stressors like those from injury and illness, camping, travelling for competition, training time, coaches demands and performance demands from participating in competitive sports lead student-athletes to losing teaching and learning contact hours, which in the end affect their academic performance.

Some studies have shown evidence to support the findings that sports stressors can have a significant impact on academic performance. A study by Wang and Hartmann (2015) found that student-athletes who experienced high levels of stress related to their sports were more likely to have lower academic performance compared to their non-athlete counterparts. These stressors can include pressure to perform well in games, conflicts with coaches or teammates, and time demands from training and competition. The demands of balancing athletics with academic responsibilities can also contribute to stress and decrease academic performance. In a study conducted by Lutgen-Sandvik et al. (2012), student-athletes reported feeling overwhelmed and distracted by sports-related stressors, leading to difficulties in focusing on their schoolwork and maintaining a strong academic performance. Therefore, it is important for student-athletes to develop coping strategies to manage sports stressors effectively in order to maintain optimal

academic performance. These strategies may include seeking support from coaches, counselors, or sports psychologists, as well as practicing time management and stress-reduction techniques.

It was also revealed in this study that conflict between student-athletes and coaches, referees, and spectators during competitive sports participation affects the academic performance of the student-athletes. The conflicts from coaches, especially in regards to inflexibility around training schedules, biased officiating by referees and the aggressive behavior of spectators when student-athletes make mistakes during competitive sports, injuries and illness from competition and travelling sometimes stress student-athletes to the extent that they are unable to concentrate on their academic work even after competitive sports. The impact of these sports stressors on academic performance highlights the importance of addressing and managing these stressors in order to support student-athletes in Colleges of Education in Ghana in achieving success both on and off the field.

The hypothesis $H_0 2$ formulated from the second objective, which was to determine whether competitive sports stressors have no statistically significant relationship with the academic performance of student-athletes in Colleges of Education in Ghana. The findings revealed that competitive sports stressors have a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana because all the *p*-values of the variables tested were less than 0.05.

The study found that stress of injury and illness from competitive sports, camping during competitive sports, long journey traveling to competitive sports hosting places, pressures of competitive sports participation, training for competitive sports, stress from the coach during competitive sports participation and conflict with the referee & spectators during competitive sports participation are the stressor that were linked to academic performance of student-athletes in colleges of education in Ghana. The study revealed that stressors affect student-athletes positively and negatively. It was found that the positive aspect of the stressors makes student-athletes active and while the negative aspect, of stressors make student-athletes loose teaching and learning contact hours. It was revealed that conflict with coaches, referee and spectators during competitive sports participation affect the academic performance of the student-athletes. The conflicts from coaches especially in regards to inflexibility around training schedules, bias referee and behaviour of spectates when student athletes make mistakes during competitive sports sometimes stress student-athletes to extent that they are unable to concentrate on their academic works even after competitive sports.

4.8.3: Objective three: To find out if stress from sports affect the academic performance of student-athletes in Colleges of Education in Ghana

The findings of the study also revealed that two hundred and fifty-one (251) student-athletes were in agreement that camping during competitive sports affects the academic performance of student-athletes in Colleges of Education in Ghana

while forty-eight (48) disagree with this statement. Also, the study found that two hundred and twenty-one (221) student-athletes disagreed that long journey traveling to competitive sports hosting places affects the academic performance of the student-athletes in Colleges of Education in Ghana while seventy-eight (78) agree with the statement. The study further revealed that on the pressure from coaches, two hundred and fifty-seven (257) of the student-athletes agreed to the statement that the stress from coaches during competitive sports affect their academic performance while twenty-three (23) student-athletes disagree with the statement. It was also revealed that, two hundred and nineteen (219) of student-athlete respondents for this, studies disagreed with the statement that training schedule for competitive sports affect their academic performance while fewer number of eighty (80) agree with the statement.

In this study, it is evidence that competitive sports stress can have both positive and negative effects on academic performance. On one hand, participation in competitive sports has proven that it can foster important skills such as time management, goal-setting, and discipline, which can positively impact academic success (Strayhorn, 2014). Exercise has been shown to improve cognitive function and academic performance by enhancing brain function and memory (Hillman et al., 2008). On the other hand, excessive stress from competitive sports can have a detrimental impact on academic performance. Research has shown that high levels of stress can impair concentration, memory, and decision-making abilities, all of which are crucial for academic success (Esteves et al., 2016). Moreover, the

demands of practice schedules, travel for competitions, and physical exhaustion can lead to increased levels of fatigue and decrease in motivation to study or attend classes (Stavrou et al., 2007).

The hypothesis $H_0$3 formulated from the third objective was that competitive sports stress has no statistically significant influence on the academic performance of student-athletes in colleges of education in Ghana. The study revealed that competitive sports stress has a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana because all the *p*-values of the variables tested were less than 0.05. The findings have shown that, while competitive sports can provide opportunities for personal growth and improved academic performance, it is important for individual student-athletes of Colleges of Education in Ghana to manage their stress levels effectively in order to maintain a balance between playing sports and academics. Seeking support from coaches, lecturers, and mental health professionals can help College of Education student-athletes cope with stress and perform well both on the field and in the classroom.

The study revealed that stress of injury and illness from competitive sports affects student-athletes' academic performance. The findings in Figure 4.8 indicate that a higher number 251 (83.95%) of the student-athletes were in agreement that Camping during competitive sports affects their academic performance whilst 48 (16.05%) were not in agreement with the statement. Also in Figure 4.9, the

majority of the respondents 221 (73.913%) disagreed with the statement that a long journey traveling to competitive sports hosting places affects their academic performance while 78 (26.087%) agreed that a long journey traveling to competitive sports hosting places affects their academic performance. Whiles the findings in Figure 4.10 indicate that the mainstream 170 (56.86%) of the student-athletes were not in agreement that pressures of competitive sports participation affect their academic performance while 129(43.14%) agreed with the statement. The results in Figure 4.11 show that the majority 219 (73.3%) of the student-athletes disagreed with the statement that training for competitive sports affects their academic performance whilst fewer number 80 (26.7%) agreed with the statement.

4.8.4: Objective four: To compare the grade point average of student-athletes in the semester of competitive sports and the semester of no competitive sports in the Colleges of Education in Ghana

The qualitative data obtained through the interview guide with sports tutors and document analysis of (GPA) of the students who participated in this study showed that student-athletes in Colleges of Education in Ghana performed better in the semester of no competitive sports participation than in the semester of competitive sports participation, making their GPA in the years of no competitive sports better than that of the years of competitive sports. This turn out indicates that student-athletes often face significant sports stressors during the semesters when they are participating in competitive sports, from injuries and illness, balancing a

demanding practice schedule, travel for games, and the pressure to perform at a high level. These sports stressors can lead to challenges in maintaining academic performance, as the student-athletes may have less time and energy to dedicate to their studies. These revelations are supported by some studies.

A study by Lupo et al. (2014) examined the GPA of student-athletes during semesters of competitive sports and found that their academic performance tended to be lower during these periods compared to semesters when they were not competing. The researchers suggested that the stress of time commitments associated with participating in competitive sports may negatively impact the academic performance of student-athletes. On the other hand, a study by Welsh et al. (2016) found that student-athletes who were able to effectively manage their time and stress during competitive sports seasons were able to maintain a higher GPA compared to those who struggled to balance their athletic and academic responsibilities. This suggests that effective time management and coping strategies may help student-athletes to mitigate the negative impact of sports stressors on their academic performance.

In conclusion, the GPA of student-athletes was lower during semesters of competitive sports making it affect the general GPA of the year of competitive sports due to the stressors and time commitments associated with participating in competitive sports. However, with effective time management and coping strategies, student-athletes may be able to maintain or even improve their

academic performance during these challenging periods which can equally enhance the GPA of the year.

Student-athletes reported feeling less stress and having stronger mental health status at the beginning of their academic year. However, as the period went from semester of no competitive sports to during the semester of competitive sports to the end of the academic year, their energy decreased rapidly and ended at the lowest point. Student-athletes' levels of perceived mood, increased academic stress and a decrease in sleep during competitive sports semester showed signs of stress. Due to higher training demands, competitive sports semester indicated the highest levels of academic stress, which increased the chances for illness, injury and academic instability. It is therefore the case that, student-athletes are vulnerable to increased levels of stress during certain periods of the academic year, mostly semesters of competitive sports. “Participants of in-season sports reported a higher level of subjective happiness than participants of out-of-season sports at the time of data collection” (Morris et al, 2020).

Even though more studies need to be done on this area of mental health, it shows that those athletes that are in season are happier. It was thought that out-of-season athletes would have a higher level of happiness and mental health because they do not have the additional stress of competition, time constraints, travel, and playing status. But in reality, the in-season athletes had higher levels of happiness because they like the structure of competition season and it offsets the stress of just

competition. Postseason athletes have a higher risk of injury because of the increased stress that comes from academics, due to exam week being in the postseason for most athletes.

Student-athletes face the risk of injury everyday but when other stress factors are in place, the risk of injury increases. Student-athletes do much better in all seasons with their mental and physical health when they have a set schedule of academics, nutrition, practice and competitions. Document analysis was used to compare students' academic performance in the semester of no competitive sports and the semester of competitive sports. The results (Appendix A) obtained through documents analysis indicated that student-athletes performance better in the semester of no competitive sports than the semester of competitive sports participation because they did not suffer stress in the semester of no competitive sports. This showed that stress from sports had negative effects on the academic performance of student-athletes in Colleges of Education in Ghana.

4.8.5 Objective five: To propose an intellectual assessment model for Colleges of Education in Ghana

The intellectual assessment model in fig 4.21 opines that as the student-athletes in Colleges of Education in Ghana face a stressful condition, they carry out assessment of the situation in terms of primary assessment and secondary assessment. Primary assessment is done on the basis of the negative consequence of the stress on the physical and mental aspects of the student-athletes while

secondary assessment is carried out on the basis of whether the student-athletes possess ample resources to confront the stressful condition and evade its disadvantageous effects. The main benefits of using this an intellectual assessment model in addressing sports stressors and academic performance in Colleges of Education in Ghana is that it provides a structured and systematic approach to identifying and understanding the underlying factors contributing to sports stress and poor academic performance (Machee et al., 2020). By using validated assessment tools and techniques, educators and sports coaches and lectures can gain a more comprehensive understanding of the unique challenges facing students-athletes, and develop targeted interventions to address these issues.

This intellectual assessment model can also help professionals in Colleges of Education in Ghana to identify strengths and weaknesses in student-athletes' cognitive abilities, emotional intelligence, problem-solving skills, and other relevant factors that might influence their academic performance (Adom, D. 2019). By incorporating these insights into individualized support plans, educators and coaches can better support students in achieving their academic and sports-related goals. This intellectual assessment model can also help Colleges of Education in Ghana to track and evaluate the effectiveness of interventions aimed at reducing sports-related stress and improving academic performance. By measuring changes in key indicators over time, educators and coaches can make informed decisions about the most effective strategies for supporting students in reaching their full potential. The use of an intellectual assessment model in

addressing sports stressors and academic performance in Colleges of Education in Ghana can provide a valuable framework for understanding and addressing the complex interplay between cognitive, emotional, and physical factors that may impact student success. A model is a representation of a process and in this case the significant relationship established between the independent and the dependent variables made the researcher to suggest the model for Colleges of Education in Ghana sports stress management. This model is my key contribution to knowledge after this study. This model is an intellectual assessment model. This model determines whether sporting activities perform by student-athletes in Colleges of Education in Ghana are stressful or not.

The intellectual assessment model further opines that as the student-athletes in Colleges of Education in Ghana face a stressful condition, they carry out assessment of the situation in terms of primary assessment and secondary assessment. Primary assessment is done on the basis of the negative consequence of the stress on the physical and mental aspects of the student-athletes while secondary assessment is carried out on the basis of whether the student-athletes possess ample resources to confront the stressful condition and evade its disadvantageous effects. As an intellectual assessment model proposed, the response of student-athletes, whether physical, mental or behavioural will be contingent to both primary and secondary assessments. Figure 4.21 describes the intellectual assessment model that has been proposed for Colleges of Education in Ghana.

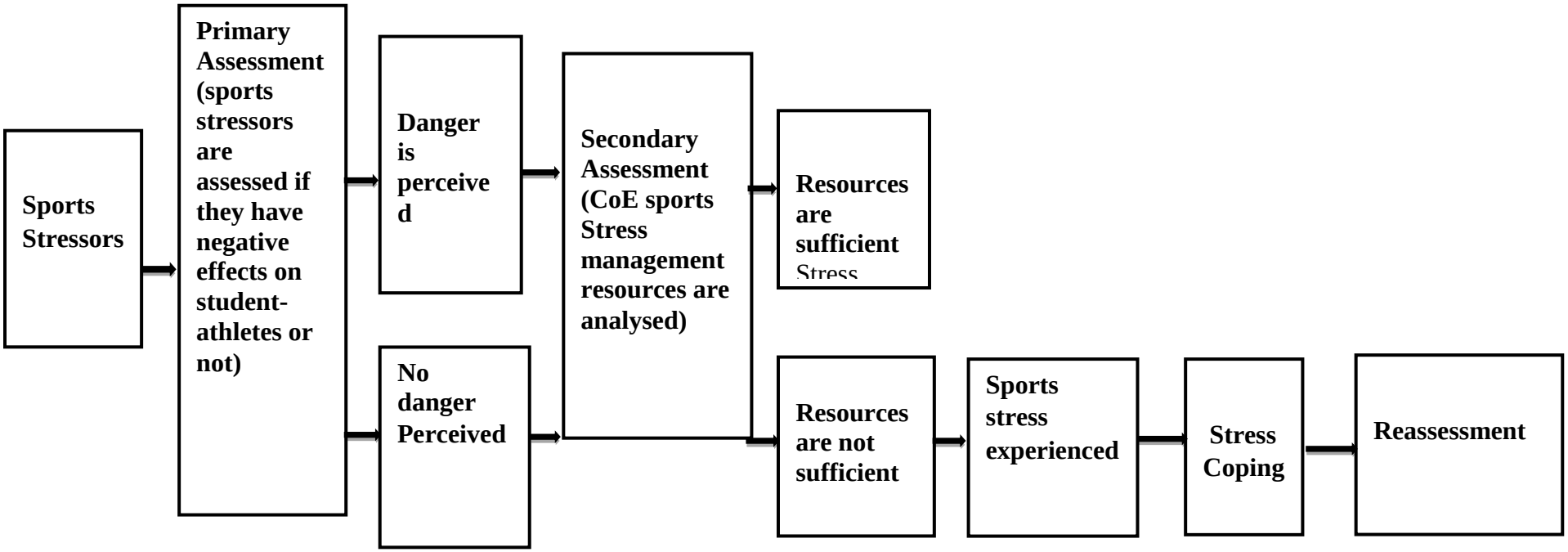


Figure 4.21: The Intellectual Assessment Model

Source: The Researcher (2023)

As can be seen in figure 4.21, as student-athletes face a stressor, a primary assessment is done to determine whether the sports stressor affects academic performance of student-athletes or not. If the sports stressor is found to negatively affect student-athletes academic performance then secondary assessment is carried out in which the resources of the Colleges of Education in Ghana are analysed on the basis of whether they are sufficient or not sufficient to deal with the stress. If the resources are not sufficient, stress is experienced which is then followed by coping and then there is reassessment of the stressor.

Throughout the life of student-athletes in Ghana Colleges of Education, there are many levels of success and failures. The study brought to light that, a student-athlete's contentment habitually hinges on how they are intelligent to wed performing in their sports and their academic work which affects their entire college life. A successful student-athlete is pleased, self-assured and full of high self-esteem, which gave many positive benefits throughout their college life and even into the rest of their life after college. However, the negative effects of a college student-athlete can be very detrimental. If a student-athlete is not feeling success because they could not wed their sports and their academic work well, then they have a tendency to stress over their performance which can be carried over into their academics. The more a student-athlete stresses about their sports, the more damaging they do to their mental strength. Student-athletes have a harder time focusing on their academics and worry about keeping their grades up. Stress during exam week also makes athletes more likely to become injured or ill. Such negative effects caused student-athlete to have anxiety and depression. Student-athletes often

suffer from the negative side of athletics which can include stress in academics and performance as well as during competitive sports semester versus noncompetitive sports semester, gender, and depression.

This research also indicates that sports stress is moderate to high among student-athletes in the academic year, and increases significantly during times of academic disruption. One notable implication is that academic performance and sports stress are independent factors that need to be addressed in different ways. While there were some relationships between factors that are commonly associated with high academic achievement and sports stress (e.g., GPA, hours spent studying), in other areas they diverged (e.g., in-person versus virtual learner, in-season time commitments, use of academic supports, number of credits enrolled). This indicates that support for students during academic disruption must have a dual focus on both maintaining academic excellence and managing the mental and physical health and performance implications associated with increased perceptions of sports stress. Furthermore, sports stress relief should always be targeted at high-risk students such as women and academically underprepared students, but especially toward men during times of academic disruption. Because student-athletes continue to access academic support resources during the time of academic disruption, this an opportunity to address both academic and sports stress related mental health concerns.

The relationship between sports stressors and academic performance of student-athletes in Colleges of Education in Ghana is very complex and

multifaceted, this is because sports in college of education in Ghana does no add any addition credit to that the student- athlete is accruing in the college, making playing sports an additional stress born only by student-athletes because both the student-athlete and the nonstudent-athlete strive for a common certificate to mandate them to be a professional teacher. While participation in sports can provide numerous benefits for student-athletes, its introduction of these unique stressors has the tendency to impact their academic success. It is therefore important for student-athletes in Colleges of Education, coaches, and lecturers, academic advisors to work together to identify and address these stressors in order to support the academic achievement and overall well-being of student-athletes.

A study by Brown et al. (2015) found that student athletes who experienced higher levels of stress from their sport reported lower levels of academic motivation and achievement. This highlights the need for effective communication and support systems to help student-athletes balance their dual roles as athletes and students. Furthermore, research by Goodwin et al. (2018) suggests that interventions aimed at reducing sports-related stressors, such as time management strategies and mental skills training, can positively impact the academic performance of student-athletes. By implementing these interventions, Colleges of Education in Ghana can better support the academic success of student-athletes and help them thrive both on and off the field.

Also, some other findings indicate that stressors related to sports can have a significant impact on the academic performance of student-athletes. In one study, researchers found that student-athletes who reported higher levels of stress related to their sport also experienced lower academic performance (Kong & Wang, 2020). This suggests that the pressure and demands of participating in sports can create additional challenges for student-athletes when it comes to managing their academic responsibilities.

Furthermore, another study found that student-athletes who perceived their coaches as highly controlling experienced higher levels of stress and lower academic performance compared to those who did not perceive their coaches as controlling (Curran & Hill, 2017). This highlights the importance of the coaching environment in influencing the stress levels and academic outcomes of student-athletes. These findings suggest that sports stressors can have a negative impact on the academic performance of student-athletes. It is crucial for coaches, academic advisors, and other support systems to recognize and address these stressors in order to help student-athletes succeed both on and off the field.

There is limited research specifically comparing the effect of sports stressors on academic performance between different parts of Africa and the rest of the world. However, one study conducted in South Africa found that student-athletes reported higher levels of stress related to their sports participation, which in turn had a negative impact on their academic performance (Bosire &

Mangu, 2021). This suggests that the effect of sports stressors on academic performance may be similar across different regions. On a global scale, a study conducted in the United States found that student-athletes reported higher levels of stress compared to non-athletes, which negatively impacted their academic performance (Robinson, Hayward, & Hecker, 2020). Similarly, a study conducted in Pakistan found that student-athletes experienced higher levels of stress due to the demands of sports participation, which also had a negative impact on their academic performance (Khan, Sardar, & Sarwat, 2019). Overall, it appears that the effect of sports stressors on academic performance is not unique to any specific region, as student-athletes around the world tend to experience similar challenges in balancing their athletic and academic responsibilities. However, more research is needed to further explore potential differences in this relationship between different parts of Africa and the rest of the world.

The effect of sports stressors on academic performance in colleges of education in Ghana may be different from elsewhere due to cultural and societal factors that influence how sports and academics are prioritized. According to a study by Ajao et al. (2019), in Nigeria there was a significant negative relationship between sports stressors and academic performance, with students who spent more time in sports reporting lower academic achievement. This could potentially apply to colleges of education in Ghana as well, as sports may be seen as a distraction from studies and may lead to decreased academic performance. In Ghana, where sports are often a highly regarded and integral

part of the culture, the impact of sports stressors on academic performance may be different. For instance, students in colleges of education in Ghana may prioritize sports and physical activity as a means of staying healthy and relieving stress, which could lead to a positive influence on their academic performance. According to a study by Sarpong et al. (2020), participation in sports was found to have a positive impact on academic performance in Ghanaian college students, suggesting that the relationship between sports stressors and academic performance may be more nuanced in this context. Overall, the effect of sports stressors on academic performance in colleges of education in Ghana may be influenced by cultural attitudes towards sports and academics, as well as individual differences in how students balance their involvement in sports with their academic responsibilities. Further research is needed to explore the specific dynamics of this relationship in the Ghanaian context.

In conclusion, understanding the unique stressors faced by student-athletes in Colleges of Education in Ghana and implementing the targeted intervention can help support their academic success and overall well-being. By addressing these challenges, colleges can create a more supportive environment for student-athletes to excel both in their sport and in the classroom. Student-athletes in Colleges of Education in Ghana are often faced with various stressors related to their participation in sports, which can have an impact on their academic performance. According to a study by Ofori-Asenso and Agyemang (2020), student-athletes in Ghana reported experiencing stressors

such as time constraints, balancing academic and athletic commitments, and pressure to perform well in both areas. These stressors can take a toll on their mental health and overall well-being, leading to negative effects on their academic performance. What makes this problem unique in the life of the student-athlete in colleges of education in Ghana is the fact that the college does not award sports participation making it an extra duty for only student-athletes who are going through the same program for same certificate at the end of the course.

One way to bridge the gap in information on the sports stressors and academic performance of student-athletes in Colleges of Education in Ghana was to conduct further research on the specific challenges faced by this population in order to gain a better understanding of the unique stressors experienced by student-athletes in Ghana and their impact on academic performance, educators and administrators can develop targeted interventions and support services to help these students succeed. In addition to conducting research, colleges of education in Ghana can also consider implementing programs and services to support the holistic development of student-athletes. This could include providing access to mental health resources, academic support services, and flexible scheduling options to help student-athletes balance their academic and athletic commitments more effectively.

Addressing the sports stressors faced by student-athletes in Colleges of Education in Ghana is crucial for supporting their academic success and overall

well-being. By prioritizing the needs of these students and providing them with the necessary support and resources, colleges can help them thrive both on and off the field.

4.9 Summary of the Chapter

This chapter analysed demographic variables of the respondents and quantitative data obtained from closed-ended portion of the questionnaires and structured portion of interview guide. The chapter also analysed qualitative data obtained from the interview guide and documents analysis. In the quantitative analysis, 299 valid questionnaires were analysed using descriptive and inferential statistics. Findings, conclusions and recommendations based on these findings are presented in the next chapter

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of this study was to investigate sports stressors and academic performance of student-athletes in selected colleges of education in Ghana. The role of age, gender and level of study was also studied. The influence of sports stressors on academic performance was also explored and finally this study identified how sports stressors were managed by the student-athletes. The study was carried out within six colleges of education in Ghana. Both qualitative and quantitative methodologies were applied. Questionnaire, an interview schedule and semester results analyses were used to collect date from student-athletes and physical education lecturers. This chapter therefore presents the conclusions reached as well as the discussions and implementations of the findings and recommendation and areas that needs further research are proposed. The study was guided by the following specific objectives:

i. To determine the possibilities of a demographic difference in stress coping among student-athletes in Colleges of Education in Ghana.
ii. To determine the sports stressors linked to the academic performance of student-athletes in Colleges of Education.
iii. To find out if stress from sports affect the academic performance of student-athletes in Colleges of Education in Ghana.

iv. To compare the grade point average of student-athletes in the semester of competitive sports and the semester of no competitive sports in the Colleges of Education in Ghana.

v. To propose an intellectual assessment model for Colleges of Education in Ghana

The study tested the following null hypotheses:

i. $H_0$1. Demographic characteristics have no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.

ii. $H_0$2. Competitive sports stressors have no statistically significant relationship on the academic performance of student-athletes in Colleges of Education in Ghana.

iii. $H_0$3. Competitive sports stress has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

iv. $H_0$4. There will be no statistically significant difference in the grade point average of student-athletes in the semester of no competitive sports as compared to the semester of competitive sports in the Colleges of Education in Ghana.

The study employed, The Involvement Theory and Resource Theory of Stress. The study was centered on three variables namely; independent, intervening and dependent variables. The study employed a cross-sectional survey. The

study location was Ghana. The study targeted student-athletes and sports tutors in Colleges of Education in Ghana. Simple random sampling and purposive sampling techniques were adopted to carry out the study. The sample size for the study was 335. The data collection instruments were a questionnaire, interview guide and document analysis. The main findings based on the objectives of this study are summarized in the section below.

5.2 Internal and External Validity of the Study

Efforts to ascertain adequate validity of the study were done by minimizing the limitation in the study. Triangulation of methodologies was applied to achieve this objective. However, internal validity of the study may have been undermined by the inability of the researcher to control all the prevailing confronting variables operating within the colleges of education in Ghana at the time of the study. The Colleges of Education in Ghana has a peculiar student population different from the other tertiary institution. The students of the colleges of education are to undergo training purposely to become basic school teachers and the effect of this may not have been captured in the sampling process. The external validity or generalization of the findings of this study may not be affected by the differences pertaining in different tertiary institutions in and out of Ghana where the study could be generalized.

5.3 Summary of the Findings

Based on both quantitative and qualitative analyses, the following summary of major findings:

1. Out of the three hundred and twenty-three (323) questionnaires administered, 306 (94.74%) were retrieved whilst 17 (5.26%) were not returned. However, 7 of the questionnaires retrieved were not properly filled and so the two hundred and ninety-nine (299) accurately filled questionnaires were analyzed using SPSS.
2. The findings from the study indicated that majority of respondents 155 (51.84%) were males while females constituted 144 (48.16%) of the respondents.
3. The findings indicate that majority of the students 155 (51.84%) of them were 26 years and above whilst 92 (30.77%) were between 20-26 years.
4. The findings further revealed that 52 (17.39%) were below 20 years.
5. The results shows that the majority of respondents 108 (36.12%) were in level 300 while 107 (35.79%) were in level 300.
6. The results also show that 84 (28.09%) were in level 100.
7. The majority of respondents 252 (84.28%) agreed that females suffer competitive sports stress than males, 41 (13.71%) disagreed that females suffer competitive sports stress than males while 6 (2.01%) were not sure of the statement.
8. A higher number of student-athletes 277 (92.642%) agreed that females manage stress from competitive sports than males while 22 (7.358%) disagreed with the statement.
9. The findings disclosed that there was a statistically significant mean difference between the groups, $F(297) = 6.382$ $p = .01$, $\alpha = .05$ where

p<0.05. Therefore, the sub-null hypothesis (*H_o1.1)* which states that gender has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana was rejected.

10. The findings showed that there was a statistically significant mean difference between the groups, F (297) = 10.204, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o1.2)* which states that age has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.
11. The results indicated that there was a statistically significant mean difference between the groups, F (297) = 20.088, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o1.3)* which states that level has no statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana
12. Majority of the student-athletes 189 (63.21%) agreed that the stress of injury and illness from competitive sports affects their academic performance while the lower number 110 (36.79%) disagreed with the statement. The findings mean that stress of injury and illness from competitive sports affects academic performance of student-athletes in Colleges of Education in Ghana.
13. The findings in Figure 4.8 also indicate that a higher number 251 (83.95%) of the student-athletes were in agreement that Camping during

competitive sports affects their academic performance whilst 48 (16.05%) were not in agreement with the statement.

14. Majority of the respondents 221 (73.913) disagreed with the statement that a long journey traveling to competitive sports hosting places affects their academic performance while 78 (26.087%) agreed that a long journey traveling to competitive sports hosting places affects their academic performance.
15. The findings in Figure 4.10 indicate that the mainstream 170 (56.86%) of the student-athletes were not in agreement that pressures of competitive sports participation affect their academic performance while 129(43.14%) agreed with the statement
16. majority 219 (73.3%) of the student-athletes disagreed with the statement that training for competitive sports affects their academic performance whilst fewer number 80 (26.7%) agreed with the statement
17. majority of the student-athletes 257 (85.95%) agreed that the stress from the coaches during competitive sports affects their academic performance while the lower number 23 (7.69%) disagreed with the statement. The study further revealed that 19(6.35%) of the student-athletes were not sure of the statement.
18. The findings disclosed that there was a statistically significant mean difference between the groups, $F(295) = 0.682$ $p = .01$, $\alpha = .05$ where $p<0.05$. Therefore, the sub-null hypothesis (*H_o2.1)* which states the stress of injury and illness from competitive sports has no statistically

significant influence on the academic performance of student-athletes in Colleges of Education in Ghana was rejected.

19. The results revealed that there was a statistically significant mean difference between the groups, F (295) = 4.055, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o2.2)* which states that camping during competitive sports has no statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.
20. The results revealed that there was a statistically significant mean difference between the groups, F (295) = .517, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o2.3)*
21. The results discovered that there was a statistically significant mean difference between the groups, F (295) = .646, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o2.4)*
22. The results discovered that there was a statistically significant mean difference between the groups, F (297) = 192.589, p = .01, α =.05 where p<0.05. The study, therefore, rejected the sub-null hypothesis (*H_o2.5)*
23. The majority of the student-athletes (68.56%) agreed that stress from competitive sports affects their academic performance whilst (31.44%) of them disagreed with the statement

5.4 Conclusions

The study made the following important conclusions based on the above findings:

i. Demographic characteristics have statistically significant relationship with stress management among student-athletes in Colleges of Education in Ghana.

ii. Competitive sports stressors such as the stress of injury and illness from competitive sports, camping for competitive sports, long journey traveling to competitive sports hosting places, pressures of competitive sports participation, training for competitive sports, conflict with the coach during competitive sports participation, & conflict with the officials & spectators during competitive sports participation have a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

iii. Competitive sports stress has a statistically significant influence on the academic performance of student-athletes in Colleges of Education in Ghana.

iv. Student-athletes performed better in the semester of no competitive sports participation than in the semester of competitive sports participation.

5.5 Recommendations

It is evidence from the findings of this study that student-athletes experience some level of stress. The stress was due to a variety of factors. The stress

experienced also had a significant effect on the student-athletes academic performance. Further, it was revealed that age, gender, level of student, were significant mediating factors in the coping of sports stressors in Colleges of Education in Ghana. Based on the findings of this study the following recommendations are made:

5.6.1 Recommendation for Policy Formulation

The study found that stress accumulated from competitive sports affects the academic performance of student-athletes in Colleges of Education in Ghana. The fact that the student-athletes sampled for this study had slighter better mean cumulative GPA appears safe to conclude that sports participation in Colleges of Education in Ghana does negatively influence the academic performance of student-athletes.

1. There should be specific initiatives focusing on the individual student-athletes challenges both personal and environmental that may impact student-athletes dual role in the college.
2. Some of the specific programmes recommended include academic monitoring, personal counseling, career guidance, assignment and compatible academic advisors, inculcation of skills, establishment of student-athletes tutoring sessions, awarding of credits for sports participation among others. This will always help maintain academic performance and sport participation without any difficulty.
3. The College authorities, faculty & staff and parents should encourage and motivate students to actively participle in sports since this research has

proven that student-athletes academic performance is better in semesters without sports activities than semesters with sports activities.

4. College authorities should also as much as possible avoid organizing sports and lectures concurrently since student-athletes are disadvantaged as they miss lectures.
5. College authorities are entreated to organize the college curriculum in such a way that it will give sports the required place and time thereby encouraging all sports educable students to participate in sports. Student-athletes should also learn how to apportion their time properly for both sports, and academic work.
6. All competitive sports competitions be done during the long vacations of the Colleges of Education academic calendar. This would enable student-athletes to recover from sports stress before teaching and learning commence.

5.6.2 Recommendations for Practice

i. The study found that more males participate in competitive sports than female student-athletes. The study, therefore, recommended that female student-athletes should be given scholarships to motivate other female students to participate in competitive sports.

ii. Colleges of Education in Ghana should have stress management facilities to address the link between stress and the academic performance of student-athletes.

iii. The Colleges of Education should organize extra tutorials for student-athletes after competitive sports participation.

iv. Colleges of Education stakeholders should try out the suggested model in an attempt to determine its operation in the Colleges of Education in Ghana.

5.7 Suggestions for Further Research

From the findings of this study, there is need to undertake further investigation that can address what this study failed to do.

i. A similar study should also be conducted in other Colleges of Education in Ghana not included in this study.

ii. This study focused on Colleges of Education student-athletes only. Further study should be conducted in other tertiary institutions such as traditional and technical universities.

5.8 Implications

This purpose of this study was to investigate sports stressors and academic performance of student-athletes in Colleges of Education in Ghana. The relevant literature provide consensus as to whether sports stressors significantly harm and help academic performance. In addition, the relevant literature has addressed other significant effects of academic performance, most notably on tertiary students. This study, by focusing on sports stressor and academic performance according to different semesters, addresses this relationship. In

addition, it looks at demographic sports stressors management academic performance as a result of age, set and level of student-athlete.

The implications of this study are vast. The pressure and importance of both sports participation and academic performance are undeniably high. As College of Education student-athletes compete for same professional teaching certificate as the non-student-athletes, they have to find additional ways to distinguish themselves, as both academic achievement and sports participation are critical to student-athletes. This finding of this study believes may have an effect on decisions to effectively combine sports participation and academic work in Colleges of Education in Ghana. For any of the reasons presented in the literature, including perceptions of self-image and ability, a drive to attain a professional teaching certificate, and improved brain functioning, students may decide to participate in sports. Along the same lines, students may choose to participate more in sports if they know that extra gains in GPA existed. This not only affects College implications but also the makeup of sports demographics in general.

Another possible implication of this study has to do with the finding that female academic performance is significantly affected by sports stressors than male academic performance. Similar to the previous implication, this finding also has the potential to change gender ratios in managing sports stressors.

A further significant implication of these findings relates to the negative perceptions of student-athletes. One potential source of incompatibility

between academic performance and the goals of College of Education student-athletes is the pressure to excel in both academics and sports. As noted by White and Sabo (2009), student-athletes may feel overwhelmed by the demands of their sport and struggle to maintain academic integrity in the face of these challenges. This can lead to instances of academic misconduct, such as cheating or plagiarism, as student-athletes may feel tempted to cut corners in order to meet the expectations placed on them. The notion that sports actually enhance academic performance runs counter to the idea that sports and academics are not aligned. Sports instead enhance academics.

Additionally, the culture of college level sports may prioritize sports success over academic achievement, creating a conflict for student-athletes who are trying to balance their responsibilities in both areas. This pressure to succeed in their sport can sometimes overshadow the importance of maintaining academic integrity, leading to instances of dishonest behavior.

Furthermore, the high-stakes nature of college sports, including the potential for scholarships and professional opportunities, can create a powerful incentive for student-athletes to prioritize their sports performance over their academic responsibilities. This can further contribute to a culture in which academic integrity may be compromised in pursuit of sports success.

The negative views attributed to the participation in sports with respect to academic performance should be revisited. It might prove interesting to those

who currently hold the belief that there is a negative correlation between academic performance and sports participation in colleges of education in Ghana. More specifically, some of the views of the specific sports stressors should be revisited according to the findings above. Finally, administrations within colleges of education in Ghana could investigate policies to take into account the findings of this study.

In order to address these challenges, Colleges of Education and athletic departments must work together to create a supportive environment that emphasizes the importance of academic integrity for all student-athletes. This may include providing resources and support for student-athletes to help them balance their academic and athletic responsibilities, as well as promoting a culture of honesty and integrity within the athletic program. By fostering a climate that values academic integrity alongside sports achievement, colleges can help student-athletes succeed in both areas without compromising their values or ethical standards.

REFERENCES

Abdulghani H.M., AlKanhal A.A., Mahmoud E.S., Ponnamperuma G.G., Alfaris E.A. “Stress and its effects on medical students: a cross-sectional study at a college of medicine in Saudi Arabia.” *J Health Popul Nutr*.29 (5) .516-22. October 2011

Adom, D. (2019). The Impact of Stress on Academic Performance: A Case Study of Students in Ghana. Journal of Education and Practice, 10(36), 125-135.

Ajao, K. O., Oladipo, E. O., & Bolaji, B. O. (2019). Influence of sports stressors on academic performance of science and arts students in tertiary institutions in Ondo State, Nigeria. Journal of Education and Practice, 10(18), 147-151.

Alsentali, A. M. & Anshel, M. H. (2015). *Relationship between internal and external acute stressors and coping style*. *Journal of Sport Behavior, 38*(4), 357-375.

Alvi, M. (2016). *A manual for selecting sampling techniques in research*. University of Karachi, Iqra University.

Anshel, M. H., Kang, M., & Miesner, M. (2010). The approach-avoidance framework for identifying athletes’ coping style as a function of gender and race. Personality and Social Sciences, 51, 341-349. doi: 10.11/j.1467 9450.2009.00796.x

Antonovsky, A. (1979). *Health, stress, and coping*. Jossey-Bass

Anum, G. (2017). *Research instruments for data collection*. Department of Fine
Art and Media Art Technology, Kwame Nkrumah University of Science and Technology

Apaak, D. and Sarpong, E. O. (2015). Internal challenges affecting academic performance of students-athletes in ghanaian public universities. Journal of education and practice, 6(14),8-13

Aquilina, D. (2013). A study of the relationship between elite athletes' educational development and sporting performance. *Int. J. Hist. Sport* 30, 374–392. doi: 10.1080/09523367.2013.765723

Arthur-Nyarko, E. (2017). *Learner characteristics and responsiveness to e-learning delivery in selected distance education institutions in Ghana* (unpublished PhD Thesis). Department of Educational Communication Technology, Kenyatta University.

Astin, A. (1984). Student involvement: A developmental theory for higher education, Journal of College Student Personnel 25, 297-308

Azizi, M. (2011). Effects of doing physical exercises on stress-coping strategies and the intensity of the stress experienced by university students in Zabol, southeastern Iran. Procedia -Social and Behavioral Sciences, 30, 372-375. https://doi.org/10.1016/j.sbspro.2011.10.073

Bamuhair, S. S., Al Farhan, A. I., Althubaiti, A., Agha, S., ur Rahman, S., & Ibrahim, N. O. (2015) Sources of stress and coping strategies among undergraduate medical students enrolled in a problem-based learning curriculum. Journal of Biomedical Education, 2015, 1-8 doi:10.1155/2015/575139

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. Psychological review, 84(2), 191.

Bosibori, O. E. (2012). *Role of Product Range, Network Associations and Marketing Strategies in Business Performance of Textile Handicraft Traders in Nairobi, Kenya* (PhD thesis) School of Applied Human Sciences of Kenyatta University.

Bosire, E., & Mangu, J. (2021). Stress among Student-Athletes: A Cross-Sectional Study in a Selected South African University. International Journal of Environmental Research and Public Health, 18(6), 3036.

Bowen, G.A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal, 9*(2),27-40.

Brown, M. T., Miller, K. E., McCauley, K., Morrow, J., & Peterson, D. B. (2015). Academic motivation and academic performance of high school athletes: A mixed methods study. Journal of Sport and Health Science, 4(2), 211-220.

Burke, J. R. & Christensen, L. (2014). *Educational research: Quantitative, qualitative and mixed approaches (5th edition). SAGA*

Capranica, L., Lupo, C., Cortis, C., Guidotti, F., & Pesce, C. (2016). Stress coping strategies and perceived stress among Italian college student-athletes. Journal of Sports Science & Medicine, 15(2), 365-371.

Chai, M. S., (2015). Personality, coping and stress among university students: Tunku Abdul Rahman University. https//www.Researchgate.net/publication.282397827, Retrieved on 10 August 2016.

Chebbet, D. (2012). Help-seeking Attitudes and Behaviors of African International Students: Examining the Relationship between Social Connectedness, Acculturative Stress, and Length of Stay. PCOM Psychology Dissertations.

Christensen, D. S. & Smith, R. E. (2016). Psychological coping skills as predictors of collegiate golf performance: Social desirability as a suppressor variable. Sport, Exercise, and Performance Psychology, 5(1), 67-80. http://dx.doi.org/10.1037/spy0000049 Retrieved from https://proxy.lib.utc.edu/login?url=https://search.proquest.com/docview/1727655517?accountid=14767

Clemente, F. M., Nikolaidis, P. T., Martins, F. M. L., & Mendes, R. S. (2016). Weekly physical activity patterns of university students: Are athletes more active than non-athletes? Springer Plus, 5(1), 1808. http://doi.org/10.1186/s40064-016-3508-3

Cosh,S & Tully, P.J. (2015). *Stressors, Coping, and support mechanisms for student athletes combining elite sport and tertiary education: Implications for practice.* Sport Psychologist.

Creswell, J. W. (2014). *Research design, qualitative, quantitative and mixed method approaches (4th ed.). SAGE Publication.*

Cross, J. L., & Fouke, B. W. (2019). Redefining the scholar-athlete. Frontiers in Sports and Active Living, 1. doi:10.3389/fspor.2019.00010.

Curran, T., & Hill, A. P. (2017). Perfectionism and Burnout in Junior Athletes: A Three-Month Longitudinal Investigation. Journal of Sport and Exercise Psychology, 39(4), 314-321.

Davis, P., Halvarsson, A., Lundström, W., and Lundqvist, C. (2019). Alpine ski coaches' and athletes' perceptions of factors influencing adaptation to stress in the classroom and on the slopes. *Front. Psychol.* 10:1641. doi: 10.3389/fpsyg.2019.01641

Davoren, A.K., & Hwang, S. (2014). Mind, body, and sport: Depression and anxiety prevalence in student-athletes. Mind, body and sport: understanding and supporting student-athlete mental wellness. Indianapolis: National Collegiate Athletic Association.

Defeciani, L. (2015). Eating disorders and body image concerns among male athletes. Clinical Social Work Journal, 44(1), 114-123. doi:10.1007/s10615-015-0567-9.

Delahaij, R., van Dam, K., Gaillard, A. W. K., & Soeters, J. (2011). Predicting performance under acute stress: The role of individual characteristics. International Journal of Stress Management, 18(1), 49-66. http://dx.doi.org/10.1037/a0020891 Retrieved from

https://proxy.lib.utc.edu/login?url=https://search.proquest.com/docview/849701029? accountid=14767

Deng, L., & Zhang, X. (2019). The Effects of Environmental Variables on Stress Levels and Academic Performance in University Students. Health Environments Research & Design Journal, 12(3), 76-87.

Dikko, M. (2016). Establishing Construct Validity and Reliability: Pilot Testing of a Qualitative Interview for Research in Takaful (Islamic Insurance). *The Qualitative Report*, 21(3), 521-528.

Eisenberg, D., Hunt, J., & Speer, N. (2013). Mental health in American colleges and universities: Variation across student subgroups and across campuses. *Journal of Nervous and Mental Disease, 201*(1), 60–67.

Etikan, I., Musa, S.A. and Alkassim, R.S. (2016). Comparison of convenience sampling and purposive sampling. American Journal of Theoretical and Applied Statistics, 5 (1), 1-4.

Ezeh, O.H. Ezeh, C.C. & Okey, B.I. (2016). Prevalence, Sources, and Patterns of Stress among University Students. African Journal for the Psychological Studies of Social Issues, 19(1), 16-36.

Fox, C. K., Barr-Anderson, D., Neumark-Sztainer, D., & Wall, M. (2010). Physical activity and sports team participation: Associations with academic outcomes in middle school and high school students. Journal of school health, 80 (1), 31-37.

Gallego, J., Aguilar-Parra, J. M., Cangas, A. J., Langer, Á. I., & Mañas, I. (2015). Effect of a mindfulness program on stress, anxiety and depression in university students. The Spanish Journal of Psychology, 17. doi:10.1017/sjp.2014.102.

GarcÃa-GarcÃa, E. R., & Salavera, C. (2020). The Influence of Study Environments in Student's Academic Performance. Sustainability, 12(14), 5882.

Gearity, B., & Murray, M. (2011). Athletes' experiences of the psychological effects of poor coaching. *Psychology of Sport and Exercise, 12*(3), 213–221. doi:10.1016/j.psychsport.2010.11.004.

Georgakis, S., Evans, J.R., & Warwick, L. (2015). The academic achievement of elite athletes at Australian schools. Journal of Education and Training Studies, 3(1), 84-97.

Ghazali, N.H.M. (2016). A Reliability and Validity of an Instrument to Evaluate the School-Based Assessment System: A Pilot Study. *International Journal of Evaluation and Research in Education*, 5(2), 2252-8822.

Gnacinski, S. L., Massey, W. V., Hess, C. W., Nai, M. M., Arvinen-Barrow, M., & Meyer, B. B. (2017). Examining stage of change differences in NCAA student-athletes' readiness for psychological skills training. Sport Psychologist, 31(4), 356-368.

Goodwin, J. E., Rollnick, M., Harris, B., & Langlois, L. (2018). Supporting the academic success of student-athletes: A mixed-methods study of effective interventions. Journal of College Student Development, 59(4), 456-472.

Hamaideh, S. (2011) Stressors and Reaction to Stressors among University Students. International Journal of Social Psychiatry, 57, 69-80. https://doi.org/10.1177/0020764009348442

Hamlin, M. J., Wilkes, D., Elliot, C. A., Lizamore, C. A., and Kathiravel, Y., (2019). Monitoring training loads and perceived stress in young elite university athletes. Front. Physiol. 10:34. doi: 10.3389/fphys.2019.00034.

Hassan, A. A., (2012). Factors influencing the changing of gender roles among the Somali women of Garissa County, [Masters Dissertation], Nairobi, University of Nairobi (UoN).

Heale, R., & Twycross, A. (2017). What is a case study? *Evidence Based Journals, 21*, 7 - 8.

Hemed, M. (2015). *Cross-sectional studies*. GFMER Tanzania.

Hoar, S. D., Evans, M. B., & Link, C. A. (2012). How do master athletes cope with precompetitive stress at a "senior game"? Journal of Sport Behavior, 35(2), 181-203. Retrieved from https://proxy.lib.utc.edu/login?url=https://search.proquest.com/docview/1015246909? accountid=14767

Hoar, S.D., Crocker, P.R.E., Holt, N.L. & Tamminem, K.A. (2010). Gender differences in adolescents athletes coping with Interpersonal Stressors in Sport: More similarities than differences? Journal of Applied Sport Psychology, 22, 134-149.

Horton, D. (2009). Class and cleats: community college student athletes and academic success. New Directions for Community Colleges, 147, 15-27. doi:10.1002/cc.374

Hwang, S., & Choi, Y. (2016). Data mining in the exploration of stressors among NCAA students athletes, psychological reports, 119(3), 787-603.

Hyatt, H. W., and Kavazis, A. N. (2019). Body composition and perceived stress through a calendar year in NCAA I female volleyball players. *Int. J. Exerc. Sci.* 12, 433–443.

Ismail, G., Kinchin, G. Edwards, J-A (2017). Pilot study, does it really matter? Learning lessons from conducting a pilot study for a qualitative PHD thesis. *International Journal of Social Science Research*, 6(1), 1-17.

Isoard-Gautheur, S., Guilllet-Descas, E., & Lemyre, P. (2012). A prospective study of the influence of perceived coaching style on burnout propensity in high level young athletes: Using a self-determination theory perspective. *The Sport Psychologist*, *26*(2), 282–298.

Israel, G.D. (1992) Determining Sample Size. University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, EDIS, Florida.

Ivarsson, A., Johnson, U., Andersen, M. B., Tranaeus, U., Stenling, A., and Lindwall, M. (2017). Psychosocial factors and sport injuries: meta-analyses for prediction and prevention. *Sports Med.* 47, 353–365. doi: 10.1007/s40279-016-0578-x
https://journals.humankinetics.com/view/journals/jsep/10/3/article-p294.xml

Kaiseler, M., Polman, R.C.J. & Nicholls, A.R (2012). Gender differences in appraisal and coping: An examination of the situational and dispositional hypothesis. Intervention Journal of Sport Psychology, 43, 1-14.

Keller, R.R. (2012). Religious diversity in North America. In S.P. Richard, A.E., Bergin. (Eds) Handbook of psychotherapy and Religious Diversity. Washington DC: American Psychology Association.

Khan, M. J., Altaf, S. and Kausar, H. (2013) Effect of Perceived Academic Stress on Students' Performance. FWU Journal of Social Sciences, 7, 146.

Khan, S., Sardar, A., & Sarwat, N. (2019). Effect of Sports Participation on Academic Performance: Moderating Role of Stress as a Mediator. International Journal of Sports and Exercise Medicine, 5(3), 1-7.

Khan, Z., Lanin, A. B., & Ahmad, N. (2015). The Level of Stress in Male and Female School Students Journal of Education and Practice, 6(13), 166-168.

Khanam, N. & Syed, Z.O. (2017). *A study on university student's time management and academic achievement. International Journal of Community Medicine and Public Health*, 4(12), 4761-4765.

Kim, J., & Dibenedetto, M. (2012). Ethnic differences in stress, coping, and substance use in student-athletes. Journal of Applied Sport Psychology, 24(2), 199-214.

Knifsend, C., & Graham, S. (2012). Too much of a good thing? How breadth of extracurricular participation relates to school-related affect and academic outcomes during adolescence. Journal of Youth & Adolescence, 41(3), 379-389. doi:10.1007/s10964-011-9737-4

Kobasa, S. C. (1979). Stressful Life Events, Personality, and Health-Inquiry into Hardiness. Journal of Personality and Social Psychology, 37, 1-11. http://dx.doi.org/10.1037/0022-3514.37.1.1

Kok Eng, T. (2013). *Adapting or adopting an instrument for your study*. School of Educational Studies, Universiti Sains Malaysia.

Kong, X., & Wang, Y. (2020). The Relationship between Athletic Identity and Academic Performance in Student-Athletes: The Mediating Role of Perceived Stress. Journal of College Student Development, 61(1), 44-52.

Kothari, C. R. (2004), Research Methodology: Methods and Techniques, (Second Edition), New Age International Publishers.

Kronholz, J. (2012). Academic value of non-academics: The case for keeping extracurriculars. *Education Next*, *12*(1), 8-14.

Laurence, B., Williams, C., & Eiland, D. (2009). Depressive symptoms, stress, and social support among dental students at a historically black college and university. *Journal of American College Health*, *58*(1), 56-63.

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

Li, H., Moreland, J. J., Peek-Asa, C., and Yang, J. (2017). Preseason anxiety and depressive symptoms and prospective injury risk in collegiate athletes. *Am. J. Sports Med.* 45, 2148–2155. doi: 10.1177/0363546517702847

Lipka, S. (2006). Athletes cite stress of balancing sports and academics. The Chronicle of Higher Education, 52(23). https://link.gale.com/apps/doc/A147063192/AONE?u=dordt&sid=AONE&xid=cf478995.

Loewen, S. & Reinders, H. (2011) *Key Concepts in Second Language Acquisition*. Hampshire: Palgrave Macmillan.

Lopes Dos Santos, M., Uftring, M., Stahl, C. A., Lockie, R. G., Alvar, B., Mann, J. B., & Dawes, J. J. (2020). Stress in academic and athletic performance in collegiate athletes: A narrative review of sources and monitoring strategies. Frontiers in Sports and Active Living, 2. https://doi.org/10.3389/fspor.2020.00042.

López de Subijana, C., Barriopedro, M., and Conde, E. (2015). Supporting dual career in Spain: Elite athletes' barriers to study. *Psychol. Sport Exerc.* 21, 57–64. doi: 10.1016/j.psychsport.2015.04.012

Lu, F.J.H, Hsu, Y.W, Chan, Y.S, Cheen, J.R., & Kao, K.T. (2012). *Assessing college student-athletes' life stress: initial measurement development and validation. Measurement in Physical Education and Exercise Science, 16. 254-267. doi: 10.1080/1091367X.2012.693371*

Lupo, R., Gleeson, C., & Martin, S. (2014). The impact of participation in sports on academic performance in college: A longitudinal study. Journal of Sport Behavior, 37(2), 159-177.

Lutgen-Sandvik, P., Tracy, S. J., & Alberts, J. K. (2012). Burned by bullying in the American workplace: Prevalence, perception, degree and impact. Journal of Management Studies, 49(2), 1-26.

Machee, E. N., Mensah, E. D., & Atindanbila, S. (2020). Assessment of variation in cognitive functioning and academic performance: implications for sport stressors among student athletes in college of education in Ghana. International Journal of Sports Science & Coaching, 15(3), 307-320.

Malone, H.E. & Coyne, L. (2016). Fundamentals of estimating sample size. Retrieved from https://www.researchgate.net/publication/303312866

Mann, J. B., Bryant, K. R., Johnstone, B., Ivey, P. A., and Sayers, S. P. (2016). Effect of physical and academic stress on illness and injury in division 1 college football players. *J. Strength Cond. Res.* 30, 20–25. doi: 10.1519/JSC.0000000000001055

Maniam, V. (2014). Sports participation and cultural identity in the experience of young people (1sted.). Bern; New York: Peter Lang.

Markser, V. Z. (2011). Sport psychiatry and psychotherapy. Mental strains and disorders in professional sports. Challenge and answer to societal changes. European Archives of Psychiatry and Clinical Neuroscience, 261, 182-5. http://dx.doi.org/10.1007/s00406-011-0239-x

Mc Kay, J., Niven, A.G., Lavallee, D. & White, A. (2008). Sources of strain among elite UK track athletes. The Sport Psychologist, 22, 143-163.

McCarthy, R.F. (2014). The effect of athletic participation on the academic achievement of high school students (unpublished PhD thesis). College of Professional Studies, Northeasten University Boston, Massachusetts

Melaku, L., Mossie, A. & Negash, A. (2015). Stress among medical students and its association with substance use and academic performance. *Journal of Biomedical Education*, **2015**, 1-9. Available at: https://www.hindawi.com/journals/jbe/2015/149509/. [Accessed 12/11/2018].

Mellalieu, S.D., Neil, R., Hanton, S., & Fletcher, D. (2009). Competition stress in sport performers: Stressors experienced in the competition environment. *Journal of Sports Sciences,* 27(7), 729–744. PubMed doi:10.1080/02640410902889834.

Moeller, R. W., Seehuus, M., Simonds, J., Lorton, E., Randle, T. S., Richter, C., & Peisch, V. (2020). The differential role of coping, physical activity, and mindfulness in college student adjustment. Frontiers in Psychology, 11. doi:10.3389/fpsyg.2020.01858.

Mohammad, A. (2011). Relationship between self-esteem and academic achievement amongst pre-university students. *Journal of Applied Sciences*, 10, 2474-2477.

Moreland, J. J., Coxe, K. A., and Yang, J. (2018). Collegiate athletes' mental health services utilization: A systematic review of conceptualizations, operationalizations, facilitators, and barriers. *J. Sport Health Sci.* 7, 58–69. doi: 10.1016/j.jshs.2017.04.009

Morris, L., Twilley, D., Sidman, C., Adamczyk,H., Gasell, Z., Plemmons,K. (2020) StudentAthletes: An exploration of subjective wellbeing. The Sport Journal, 41(5) https://thesportjournal.org/article/student-athletes-an-exploration-of-subjective-wellbeing/

Mugenda, O. M & Mugenda, A. G (2012) Research Methods: Qualitative and Quantitative Approaches. Nairobi: ACTS Press

Muthoni, A., (2013). The Efficacy of Psycho education on Stress and Healthy Behavior amongst Bachelor of Education Students at the University of Nairobi and Kenyatta University in Kenya. http://psychiatry.uonbi.ke, Retrieved on 12 May 2015

Muzenda, V. (2014). *The Delivery of the Clothing and Textiles Curriculum in Zimbabwean Universities: Towards an Integrated Approach to Vertical*

and Horizontal Discourses (PhD Thesis). University of Fort Hare, Faculty of Education.

Mwakoghu, M J., (2011), *Determination of stress and management among first year nursing students*, Nairobi, University of Nairobi [Unpublished Masters dissertation].

Ndayimirije, M. (2015). *The English Language Curriculum for State Primary Schools in Burundi: An Appraisal of its Adequacy and Implementation* (Unpublished doctoral dissertation). Nairobi, Kenya: Kenyatta University.

Nicholls, A. R., Levy, A. R., Jones, L., Meir, R., Radcliffe, J. N., & Perry, J. L. (2016). Committed relationships and enhanced threat levels: Perceptions of coach behavior, the coach–athlete relationship, stress appraisals, and coping among athletes. International Journal of Sports Science & Coaching, 11(1), 16-26. doi:10.1177/1747954115624825.

Ofori-Asenso, R., & Agyemang, C. (2020). The burden of sport-related injury in students: A cross-sectional study in the Ashanti region of Ghana. Open access journal of sports medicine, 11, 185-194.

Oyelade, O., Oladipupo, O. & Obagbuwa, I. (2010). *Application of K means Clustering algorithm for prediction of students' academic performance.* Malaysia: Preprint.

Patton, K., Watson, J. C., & McCaul, D. (2014). Stress coping strategies among NCAA Division III Student-Athletes. Journal of Sport Behavior, 37(2), 159-176.

Parker, P. C., Perry, R. P., Hamm, J. M., Chipperfield, J. G., Hladkyj, S., & Leboe-Mcgowan, L. (2018). Attribution-based motivation treatment efficacy in high-stress student athletes: A moderated-mediation analysis of cognitive, affective, and achievement processes. Psychology of Sport and Exercise, 35, 189-197. doi:10.1016/j.psychsport.2017.12.00.

Radcliffe, J. N., Comfort, P., and Fawcett, T. (2015). Psychological strategies included by strength and conditioning coaches in applied strength and conditioning: *J. Strength. Cond. Res.* 29, 2641–2654. doi: 10.1519/JSC.0000000000000919

Reiss, C., & Wiest, A. (2016). The Impact of Study Location on the Academic Performance of University Students. Journal of College Student Development, 57(1), 44-54.

Robinson, M., Hayward, D., & Hecker, K. (2020). The Impact of Stress on Student-Athletes' Academic Performance: A Comparison of Student-

Athletes and Non-Athletes. Journal of College Student Development, 61(4), 406-421.

Rogowska, A. & Kusnierz, R.H. (2012). Coping of judo competitors in the context of gender, age, years of practice and skill level. Journal of Applied Sport Psychology, 24, 4,445-464.

Roopa, S. & Rani, M.S. (2012). Questionnaire designing for a survey. The Journal of Indian Orthodontic Society, 46 (4), 273-277.

Rose, S., Spinks, N. and Canhoto, A.I. (2015) Chapter 6: Management Research: Applying the Principles. https://pdfs.semanticscholar.org/6182/186784d792ed09c4129924a46f9e88869407.pdf

Rosenthal, R., & Curby, T. (2019). The impact of sports-related stressors on academic performance in college athletes. Journal of Sport & Exercise Psychology, 41(4), 231-238.

Rowley, J. (2012). Conducting research interviews. *Management Research Review*, 35 (3/4), 260-271.

Sahoo, R.K. (2021). Observation, interview and Diaries as means of obtaining data from Children. School of Open Learning.

Sahoo, R. K. (2022). Interview as a tool for data collection in educational research. RESEARCGATE.

Salkind, N. J. (Ed.). (2010). *Encyclopedia of research design.* Sage. https://doi.org/10.4135/9781412961288.

Sarpong, P. A., Konadu, T., & Anwary, M. Y. (2020). Sports participation and academic performance among college students in the Volta Region of Ghana. International Journal of Physical Education, Fitness and Sports, 9(2), 112-116.

Saunders, M., Lewis, P., & Thornhill, A. (2012). Research Methods for Business Students (6 ed.): Pearson.

Schwarzer, R. and Leppin, A. (1991) Social Support and Health: A Theoretical and Empirical Overview. Journal of Social and Personal Relationships, 8, 99-127. http://dx.doi.org/10.1177/0265407591081005

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

Selye, H. (1946). J. clin. Endocrinol.,6,117. (1947). Textbook of Endocrinology, 1sted. Montreal.

Shannon, S., Hanna, D., Haughey, T., Leavey, G., Mcgeown, C., & Breslin, G. (2019). Effects of a mental health intervention in athletes: Applying self-determination theory. Frontiers in Psychology, 10. doi:10.3389/fpsyg.2019.01875.

Siraj, Harlina & Salam, Abdus & Roslan, R. & Hasan, N.A. & Jin, T.H. & Othman, M.N. (2014). Stress and its association with the academic performance of undergraduate fourth year medical students at Universiti Kebangsaan Malaysia. International Medical Journal Malaysia. 13. 19-24.

Sohail A, Al-Imari M, Xiao P, Evans B (2013) Optimal power allocation for OFDM based cognitive radio systems with arbitrary input distributions. IEEE Vehicular Technology Conference, 2013, Dresden, Germany.

Solanky P, Desai B, Kavishwar A, Kantharia SL. Study of psychological stress among undergraduate medical students of Government Medical College, Surat. Int J Med Sci Public Health. 2012; 1:38–42.

Statler, T., and DuBois, A. (2016). "Psychology of athletic preparation and performance," in *Essentials of Strength Training and Conditioning*, eds. G. Haff, and N. T. Triplett (Champaign, IL: Human Kinetics), 155–172.

Sun, J., Buys, N., Stewart, D., & Shum, D. (2011). Mediating effects of coping, personal belief, and social support on the relationship among stress, depression, and smoking in university students. Health Education, 111, 2, 133-146.

Surujlal, J., Van Zyl, Y., & Nolan, V.T. (2013). Perceived stress and coping skills of university student-athletes and the relationship with life satisfaction. African Journal for Physical, Health Education, Recreation and Dance, 19(4:2), 1047-1059

Szivak, T. K., and Kraemer, W. J. (2015). Physiological readiness and resilience: pillars of military preparedness. *J. Strength Cond. Res.* 29, S34–S39. doi: 10.1519/JSC.0000000000001073

Taherdoost, H. (2016). Sampling methods in research methodology: How to choose a sampling technique for research. ResearchGate.

Taylor, L., Chrismas, B. C., Dascombe, B., Chamari, K., & Fowler, P. M. (2016). The importance of monitoring sleep within adolescent athletes: Athletic, academic, and health considerations. Frontiers in Physiology, 7. doi:10.3389/fphys.2016.00101.

Thangaraj S and D'souza L (2014). Prevalence of stress levels among first year medical undergraduate students. *International Journal of Interdisciplinary and Multidisciplinary Studies* **1**(5) 176-181. **WHO (1994).** A user's guide to the self-reporting questionnaire. Division of

Mental Health. Available: http://whqlibdoc.who.int/hq/1994/WHO_MNH_PSF_94.8.pdf

Thawabieh, A. M., & Qaisy L. M. (2012). Assessing stress among university students. *American International Journal of Contemporary Research, 2*(2), 110–116.

Turner, J., Bartlett, D., Andiappan, M., & Cabot, L. (2015). Students' perceived stress and perception of barriers to effective study: Impact on academic performance in examinations. *British Dental Journal*, *219*(9), 453-458. https://doi.org/10.1038/sj.bdj.2015.850

Twum, R. (2013). *Influence of Using Mobile Phone Technologies on Science Students' Academic Performance in Selected Ghanaian Public University* (Unpublished doctoral dissertation). Nairobi, Kenya: Kenyatta University.

Uphill, M., Sly, D., & Swain, J. (2016). From mental health to mental wealth in athletes: Looking back and moving forward. Frontiers in Psychology, 7. doi:10.3389/fpsyg.2016.00935.

Verma, J. P., Bhukar, J. P., & Kumar, S. (2011) *A study on stress stimuli among the students of physical education. Journal of Physical Education and Sport. 11(1). 48-55.*

Versaevel.L.N., (2015). Canadian post-secondary students, stress, and academic performance – A Socio-Ecological Approach: The University of Western Ontario.http://ir.lib.uwo.ca/etd. Retrieved on 12 August 2016.

Voss, A., Bogdanski, M., Langohr, B., Albrecht, R., & Sandbothe, M. (2020). Mindfulnessbased student training leads to a reduction in physiological evaluated stress. Frontiers in Psychology, 11. doi:10.3389/fpsyg.2020.00645.

Wach, E. (2013). *Learning about Qualitative Document Analysis*. IDS PRACTICE PAPER IN BRIEF.

Wang, K. T., & Hartmann, T. (2015). The role of motivational constructs in understanding sport-related academic performance in green cultural sportists. Sport, Exercise, and Performance Psychology, 4(4), 254-269.

Welsh, D., Hazel, S., & Theobald, N. (2016). Balancing academics and athletics: Strategies for success among student-athletes. Journal of College Student Development, 57(6), 654-670.

Wolters, C.A and M. Hussain, 2015. Investigating grit and its relations with college students' self-regulated learning and academic achievement. *Metacognition and Learning*, 10 (3), 293-311.

Yarkwah, C. (2020). Effects of sports participation on the academic performance of senior high school students in mathematics. *Global Journal of Arts, Humanities and Social Sciences, 8* (2)62-74.

Yusoff, M.S.B., Abdul Rahim, A.F., Yaacob, M.J. (2010). Prevalence and Sources of Stress among Universiti Sains Malaysia Medical Students, *Malaysian Journal of Medical Sciences*, 17 (1), 30-37.

Zandi, L., et al. (2020). The effects of mindfulness training on academic performance and stress in college athletes. Journal of Sport Psychology, 39(2), 89-97.

Zangirolami-Raimundo J, Echeimberg J.O, Leone C. (2018). Cross-sectional studies. *Journal of Human Growth and Development,* 28(3),356-360.

Zheng, M. (2015). Conceptualization of cross-sectional mixed methods studies in health science: A Methodological Review, *International Journal of Quantitative and Qualitative Research Methods,* .3 (2), 66-87.

APPENDICES

APPENDIX A: Questionnaire for Students

I am Julius Jerry Agortey, a Ph.D. student at Kenyatta University, Kenya. As part of the academic requirements, I am conducting research on Sports Stressors and the Academic Performance of Student Athletes in Selected Colleges of Education. I assure you that any information provided shall be used solely for academic purposes; confidentiality is assured.

PART A: Background Information

1. Gender: Female [ ] Male( )
2. Age: below 20 years [ ] 20-25 years [ ], 26 years & above [ ]
3. Level: 100 [ ] level 200 [ ] level 300 [ ]

S/No.	STATEMENT	SA	A	N	D	SD
1.	Female student-athletes suffer more stress from competitive sports than males.					
2.	Female Student-athletes manage stress from competitive sports more than males.					

Section B: Stressors linked to the academic performance of student-athletes in colleges of education.

S/No.	STATEMENT	SA	A	N	D	SD
1.	The stress of injury and illness from competitive sports affects my academic performance.					
2.	Camping during competitive sports affects my academic performance.					
3.	Long journey traveling to competitive sports hosting places affects my academic performance.					
4.	Pressures of competitive sports participation affect my academic performance.					
5.	Training for competitive sports affects my academic performance.					
6.	Stress from the coach during competitive sports participation affects my academic performance.					
7.	Conflict with the referee & spectators during competitive sports participation affects my academic performance.					

Section C: Influences of stress on academic performance of student-athletes in Colleges of Education

SA = (Strongly Agree), **A** = (Agree), **D** = (Disagree), **SD** = (Strongly Disagree).

S/No.	STATEMENT	SA	A	N	D	SD
1.	Stress from competitive sports reduces my academic performance.					
2.	My colleagues who do not engage in competitive sports perform well academically than me because they do not suffer stress.					
3.	My focus on academic performance has reduced stress from competitive sports.					
4.	Stress from competitive sports makes me easily feel edgy and worried during learning.					
5.	You habitually realize it's not too easy to cope with academic activities due to stress from competitive sports participation.					
6.	My academic performance may be good enough if I can manage or control stress from competitive sports.					

Section D: The GPA of student-athletes in the year of competitive sports and the year of no competitive sports in the Colleges of Education in Ghana.

SA = (Strongly Agree), **A** = (Agree), **D** = (Disagree), **SD** = (Strongly Disagree).

S/No.	STATEMENT	SA	A	N	D	SD
1.	I perform well academically in the year of no competitive sports than in the year of competitive sports because I am not stressed in the year of no competitive sports.					

APPENDIX B: Interview Guide for Lecturers in the Colleges of Education

1. In your opinion what is the main influence of stress on the academic performance of student-athletes in Ghana Colleges of Education?
2. As a lecturer, to what extent do you think stress influences student-athletes' academic performance in your college?
3. What kind of support do you give to student-athletes who miss your lectures due to their involvement in sports?
4. In your opinion to what extent does this support affect the student-athletes' academic performance?
5. Do students who are involved in intercollegiate sports do better in the classroom?
6. Have you noticed any differences between male and female student-athletes in regards to their behaviour?
7. From your experience of working with students, can you attribute any type of stressors that are as a result of involvement in sports?
8. What is the greatest benefit student-athletes received from sports involvement?
9. As the college sports director, how important is a college sports program to your students?
10. How would your college be impacted if all sports programs are eliminated?
11. What influence does your coaches have upon the students they coach?
12. Please describe student characteristics that you would attribute to their involvement in an intercollegiate sports program.

APPENDIX C: Student-Athletes GPA in the Semester of no Competitive Sports and the Semester of Competitive Sports

Students	GPA in Semester of no Competitive Sports	GPA in Semester of Competitive Sports
1	2.7	2.3
2	3.0	2.3
3	2.3	2.1
4	2.5	2.5
5	2.7	2.5
6	2.5	2.4
7	2.4	2.2
8	2.5	2.3
9	2.4	2.2
10	2.5	2.4
11	2.5	2.2
12	2.9	2.5
13	3.0	2.4
14	2.4	2.3
15	2.8	2.2
16	3.1	2.4
17	2.5	2.3
18	2.4	2.3

19	2.4	2.3
20	2.5	2.3
21	2.3	2.1
22	2.4	2.3
23	2.3	2.1
24	2.5	2.4
25	2.4	2.3
26	2.5	2.4
27	2.4	2.3
28	2.4	2.2
29	2.3	2.1
30	2.2	2.4
31	2.3	2.2
32	2.5	2.4
33	2.4	2.4
34	2.6	2.5
35	2.5	2.4
36	2.5	2.4
37	2.6	2.5
38	2.6	2.5
39	2.5	2.4
40	3.3	2.5
41	2.8	2.5

42	2.4	2.3
43	2.5	2.2
44	2.3	2.4
45	2.5	2.4
46	2.2	2.4
47	2.4	2.3
48	2.4	2.2
49	3.0	2.4
50	2.5	2.3
51	3.2	2.4
52	2.5	2.4
53	2.5	2.3
54	2.3	2.1
55	2.7	2.5
56	2.2	2.0
57	2.4	2.2
58	2.4	2.2
59	2.2	2.5
60	2.5	2.4
61	2.6	2.5
62	2.5	2.4
63	2.8	2.5
64	2.6	2.4

65	2.8	2.5
66	2.4	2.5
67	3.2	2.4
68	3.1	2.5
69	3.2	2.3
70	3.2	2.2
71	3.1	2.5
72	3.2	2.4
73	2.6	2.4
74	2.6	2.3
75	2.5	2.2
76	2.3	2.5
77	2.5	2.3
78	2.4	2.4
79	2.6	2.3
80	2.5	2.4
81	2.8	2.4
82	2.9	2.4
83	2.4	2.2
84	2.6	2.5
85	2.5	2.3
86	2.8	2.4
87	2.9	2.5

88	2.4	2.3
89	2.8	2.5
90	2.9	2.4
91	2.7	2.5
92	2.9	2.5
93	2.8	2.5
94	2.7	2.4
95	2.9	2.5
96	2.5	2.4
97	2.8	2.5
98	2.6	2.4
99	2.4	2.5
100	2.6	2.4
101	2.9	2.5
102	2.5	2.5
103	3.4	2.5
104	3.3	2.5
105	3.3	2.4
106	3.4	2.4
107	3.3	2.4
108	3.4	2.5
109	3.5	2.6
110	3.3	2.6

111	3.2	2.6
112	3.1	2.4
113	3.5	2.5
114	3.4	2.5
115	3.3	2.5
116	3.4	2.6
117	3.3	2.7
118	3.3	2.6
119	3.5	2.8
120	3.4	2.6
121	3.3	2.8
122	3.3	2.7
123	3.3	2.8
124	3.2	2.7
125	3.3	2.9
126	3.2	2.8
127	3.2	2.9
128	3.1	2.8
129	3.3	2.8
130	3.2	2.9
131	3.2	2.8
132	2.6	2.8
133	2.7	2.4

134	2.6	2.4
135	2.7	2.3
136	2.6	2.3
137	2.8	2.3
138	2.5	2.2
139	2.7	2.4
140	2.6	2.3
141	2.7	2.4
142	2.7	2.3
143	2.8	2.4
144	2.6	2.4
145	2.7	2.3
146	2.6	2.4
147	2.8	2.4
148	2.7	2.5
149	2.6	2.3
150	2.7	2.5
151	2.6	2.4
152	2.4	2.5
153	2.6	2.6
154	2.3	2.4
155	2.1	2.3
156	2.6	2.4

157	2.5	2.3
158	2.6	2.3
159	2.5	2.3
160	2.7	2.4
161	2.8	2.3
162	2.6	2.4
163	2.7	2.4
164	2.6	2.5
165	2.5	2.4
166	2.6	2.4
167	2.7	2.5
168	2.5	2.4
169	2.6	2.4
170	2.7	2.4
171	2.6	2.4
172	2.7	2.3
173	2.6	2.5
174	2.7	2.4
175	2.6	2.3
176	3.7	2.3
177	3.5	2.9
178	3.4	2.9
179	2.8	2.4

180	2.6	2.3
181	2.7	2.3
182	2.6	2.3
183	2.8	2.3
184	2.5	2.4
185	2.6	2.4
186	2.4	2.4
187	2.8	2.5
188	2.7	2.3
189	2.8	2.4
190	2.7	2.3
191	2.6	2.4
192	2.8	2.4
193	2.6	2.3
194	2.9	2.4
195	2.6	2.3
196	2.7	2.4
197	2.8	2.4
198	2.7	2.4
199	2.8	2.3
200	2.7	2.4
201	2.9	2.3
202	2.7	2.4

203	2.6	2.4
204	2.7	2.5
205	2.6	2.5
206	2.8	2.5
207	2.6	2.4
208	2.8	2.4
209	2.6	2.5
210	2.8	2.4
211	2.7	2.4
212	2.8	2.4
213	2.7	2.4
214	2.6	2.4
215	2.8	2.5
216	2.6	2.4
217	2.7	2.5
218	2.5	2.4
219	2.7	2.4
220	2.6	2.3
221	2.7	2.4
222	2.6	2.3
223	2.8	2.4
224	2.9	2.4
225	2.7	2.4

226	2.6	2.4
227	2.7	2.5
228	2.5	2.4
229	2.7	2.4
230	2.6	2.5
231	2.7	2.3
232	2.8	2.5
233	2.9	2.3
234	2.7	2.3
235	2.6	2.4
236	2.5	2.3
237	2.7	2.4
238	2.6	2.3
239	3.3	2.4
240	2.7	2.4
241	2.5	2.4
242	3.2	2.9
243	2.8	2.4
244	2.8	2.4
245	2.7	2.5
246	3.2	2.8
247	2.9	2.4
248	2.5	2.2

249	2.8	2.3
250	2.6	2.3
251	2.7	2.3
252	2.8	2.3
253	3.1	2.8
254	2.6	2.3
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258	2.6	2.3
259	2.7	2.3
260	2.5	2.3
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262	2.6	2.3
263	2.8	2.3
264	2.7	2.4
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274	2.8	2.5
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285	2.8	2.4
286	2.7	2.3
287	2.6	2.4
288	2.7	2.4
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291	2.7	2.3
292	2.6	2.3
293	2.8	2.3
294	2.7	2.3

295	2.6	2.4
296	3.3	2.9
279	3.4	2.9
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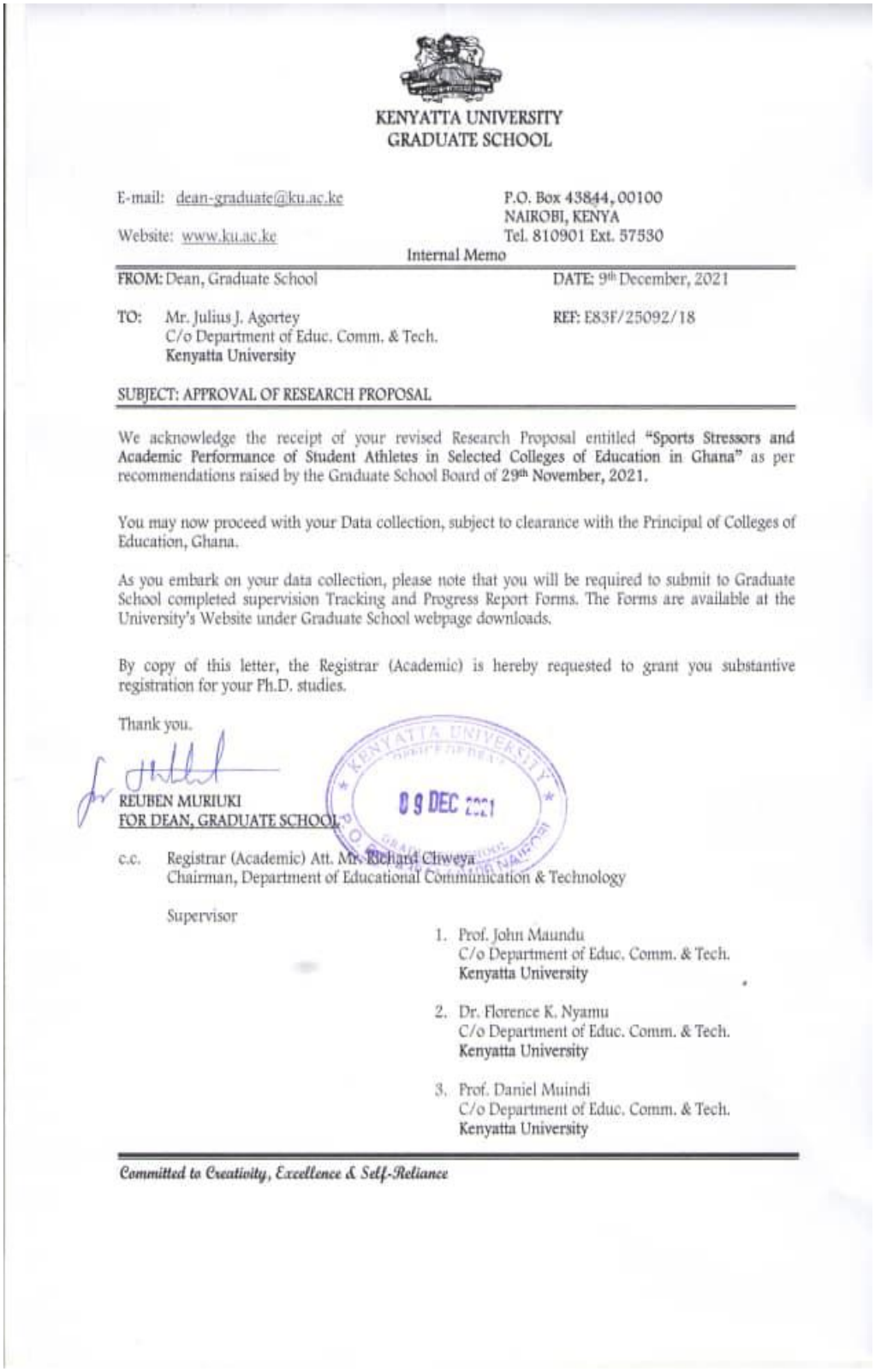
APPENDIX D1: Approval of Research by Graduate School



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 57530

Internal Memo

FROM: Dean, Graduate School

DATE: 9th December, 2021

TO: Mr. Julius J. Agortey
C/o Department of Educ. Comm. & Tech.
Kenyatta University

REF: E83F/25092/18

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

We acknowledge the receipt of your revised Research Proposal entitled **"Sports Stressors and Academic Performance of Student Athletes in Selected Colleges of Education in Ghana"** as per recommendations raised by the Graduate School Board of 29th November, 2021.

You may now proceed with your Data collection, subject to clearance with the Principal of Colleges of Education, Ghana.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed supervision Tracking and Progress Report Forms. The Forms are available at the University's Website under Graduate School webpage downloads.

By copy of this letter, the Registrar (Academic) is hereby requested to grant you substantive registration for your Ph.D. studies.

Thank you.

KENYATTA UNIVERSITY
09 DEC 2021

REUBEN MURIUKI
FOR DEAN, GRADUATE SCHOOL

c.c. Registrar (Academic) Att. Mr. Richard Chweya
Chairman, Department of Educational Communication & Technology

Supervisor

1. Prof. John Maundu
   C/o Department of Educ. Comm. & Tech.
   Kenyatta University
2. Dr. Florence K. Nyamu
   C/o Department of Educ. Comm. & Tech.
   Kenyatta University
3. Prof. Daniel Muindi
   C/o Department of Educ. Comm. & Tech.
   Kenyatta University

Committed to Creativity, Excellence & Self-Reliance

APPENDIX D2: Research Authorization by Graduate School

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

OUR REF: E83F/25092/18

Date: 9th December, 2021

The Principals
Colleges of Education
GHANA

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MR.JULIUS J. AGORTEY REG.NO. E83F/25092/18

I write to introduce Mr. **Agortey** who is a Postgraduate Student of this University. He is registered for Ph.D. Degree programme in the **Department of Educational Communication & Technology in the School of Education.**

Mr. **Agortey** intends to conduct research for Ph.D. Thesis entitled, **"Sports Stressors and Academic Performance of Student Athletes in Selected Colleges of Education in Ghana"**

Any assistance given will be highly appreciated.

Yours faithfully,

09 DEC 2021

PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

RM/cao

Committed to Creativity, Excellence & Self-Reliance

APPENDIX E: Letter Requesting for Research Permit from Principals of Colleges of Education.

Educational Communication and Technology Department
Kenyatta University
Nairobi Kenya
2nd February, 2022

THE PRINCIPAL,
COLLEGES OF EDUCATION,
GHANA.

Dear Sir,

PERMISSION TO COLLECT RESEARCH DATA IN SELECTED COLLEGES OF EDUCATION IN GHANA.

I'm a Ghanaian and a PhD student at Kenyatta university, Nairobi, Kenya. I'm conducting research entitled **"Sports Stressors and Academic Performance of Student-Athletes in Selected Colleges of Education in Ghana".**

I write to officially seek permission to conduct research in some selected colleges in the Volta, Ashanti, and Central Regions which fall in three of the five Colleges of Education national zoning.

Attached is the photocopy of my research authorization letter from Kenyatta University graduate school.

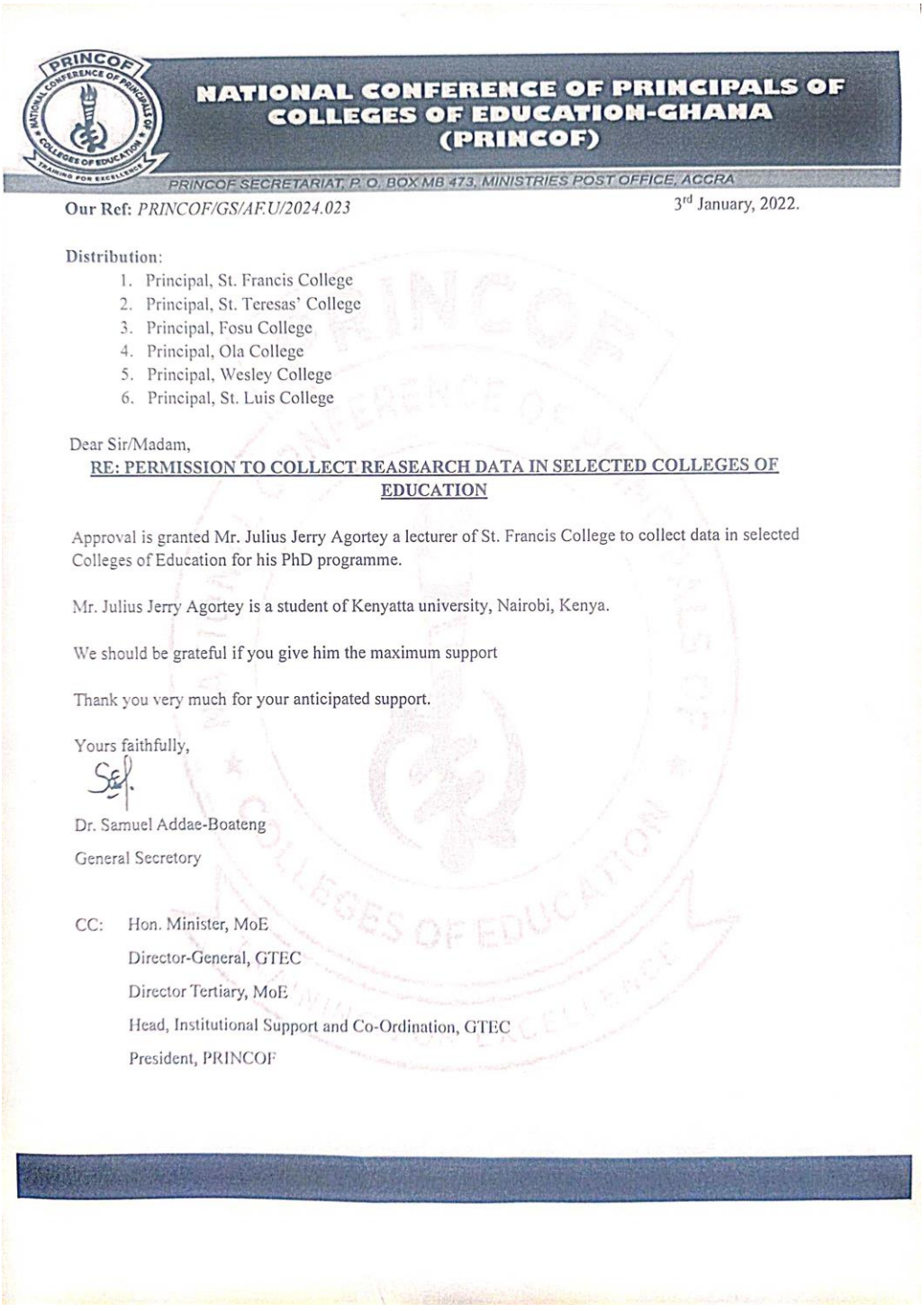
I hope my permission will be given the needed consideration and attention.

Thank you

Yours faithfully

Julius Jerry Agortey

APPENDIX F: College of Education Principal's Approval Letter



NATIONAL CONFERENCE OF PRINCIPALS OF COLLEGES OF EDUCATION-GHANA (PRINCOF)

PRINCOF SECRETARIAT, P. O. BOX MB 473, MINISTRIES POST OFFICE, ACCRA

Our Ref: *PRINCOF/GS/AFU/2024.023*

3rd January, 2022.

Distribution:

1. Principal, St. Francis College
2. Principal, St. Teresas' College
3. Principal, Fosu College
4. Principal, Ola College
5. Principal, Wesley College
6. Principal, St. Luis College

Dear Sir/Madam,

RE: PERMISSION TO COLLECT REASEARCH DATA IN SELECTED COLLEGES OF EDUCATION

Approval is granted Mr. Julius Jerry Agortey a lecturer of St. Francis College to collect data in selected Colleges of Education for his PhD programme.

Mr. Julius Jerry Agortey is a student of Kenyatta university, Nairobi, Kenya.

We should be grateful if you give him the maximum support

Thank you very much for your anticipated support.

Yours faithfully,

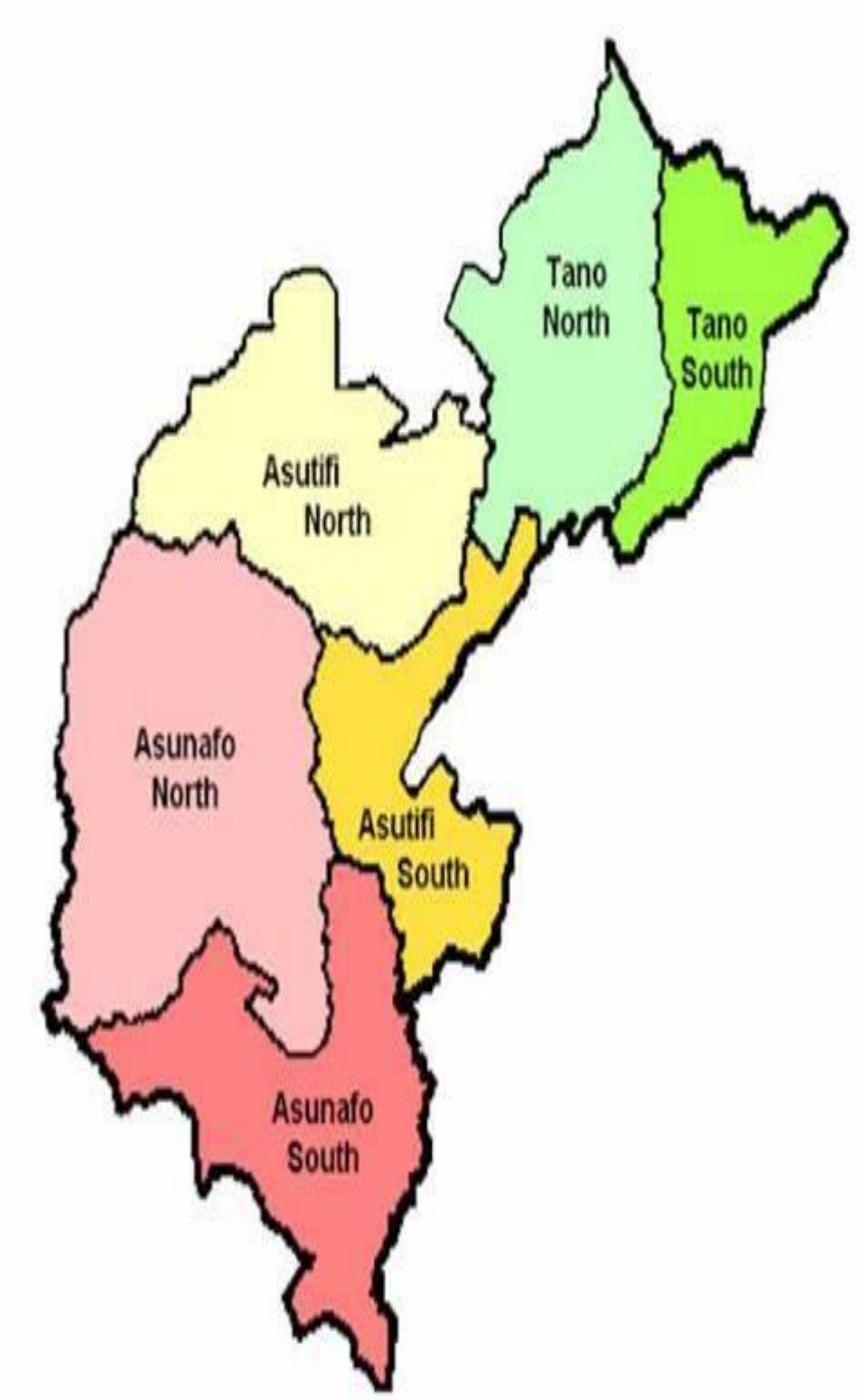
Dr. Samuel Addae-Boateng

General Secretory

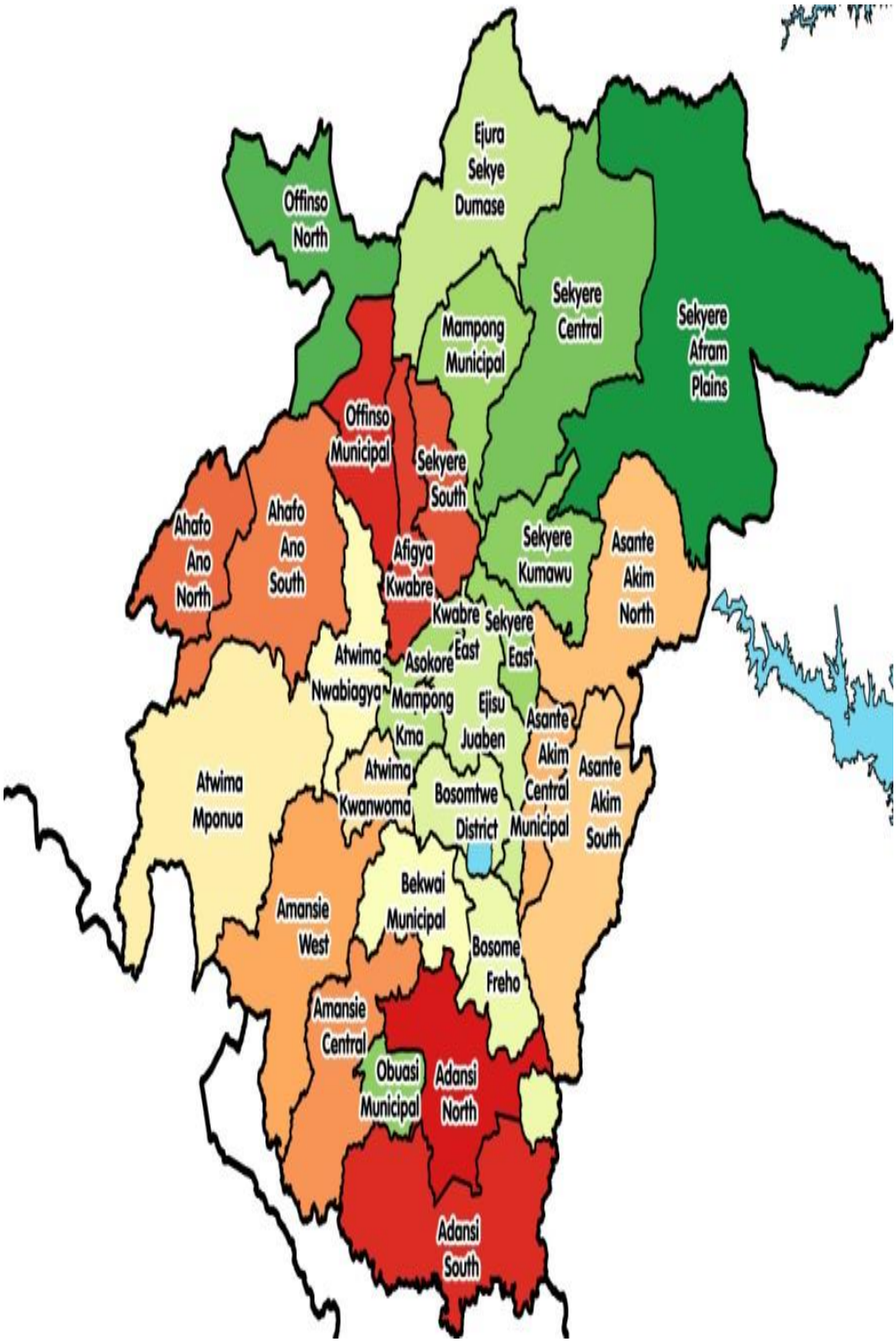
CC: Hon. Minister, MoE
Director-General, GTEC
Director Tertiary, MoE
Head, Institutional Support and Co-Ordination, GTEC
President, PRINCOF

APPENDIX G1: Administrative Map of Ghana

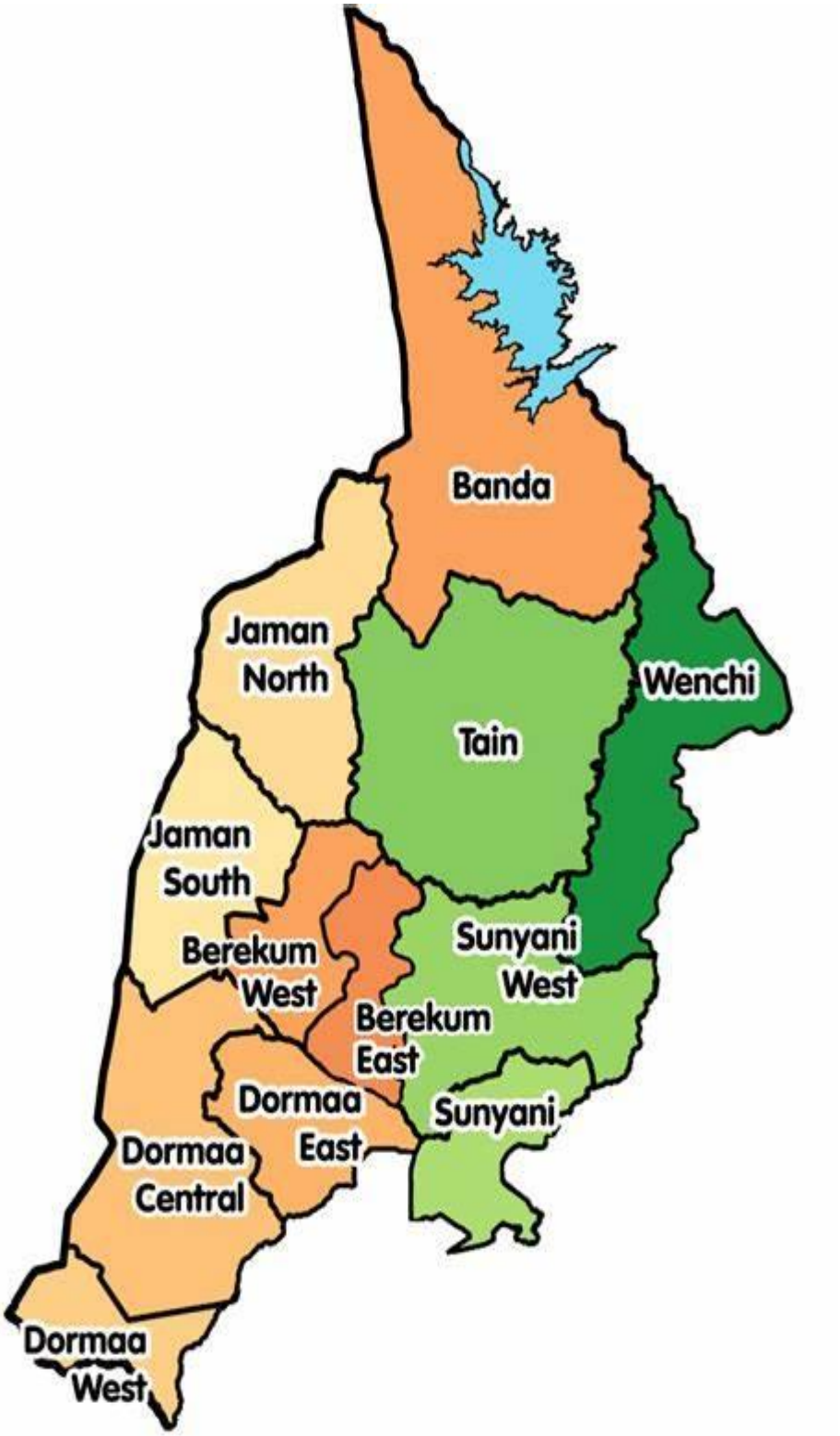
APPENDIX G2: Administrative Map of Ahafo Region of Ghana



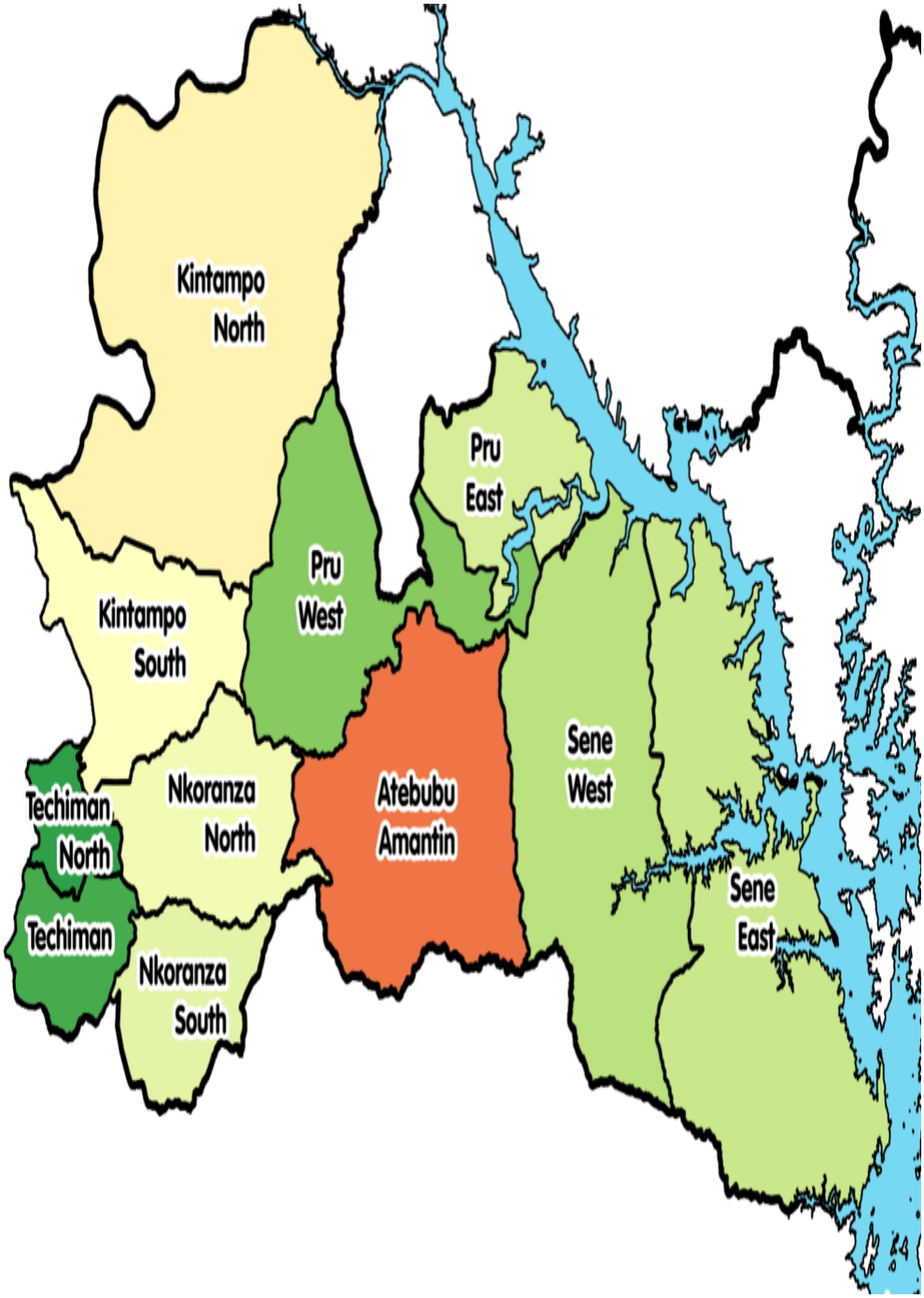
APPENDIX G3: Administrative Map of Ashanti Region, Ghana



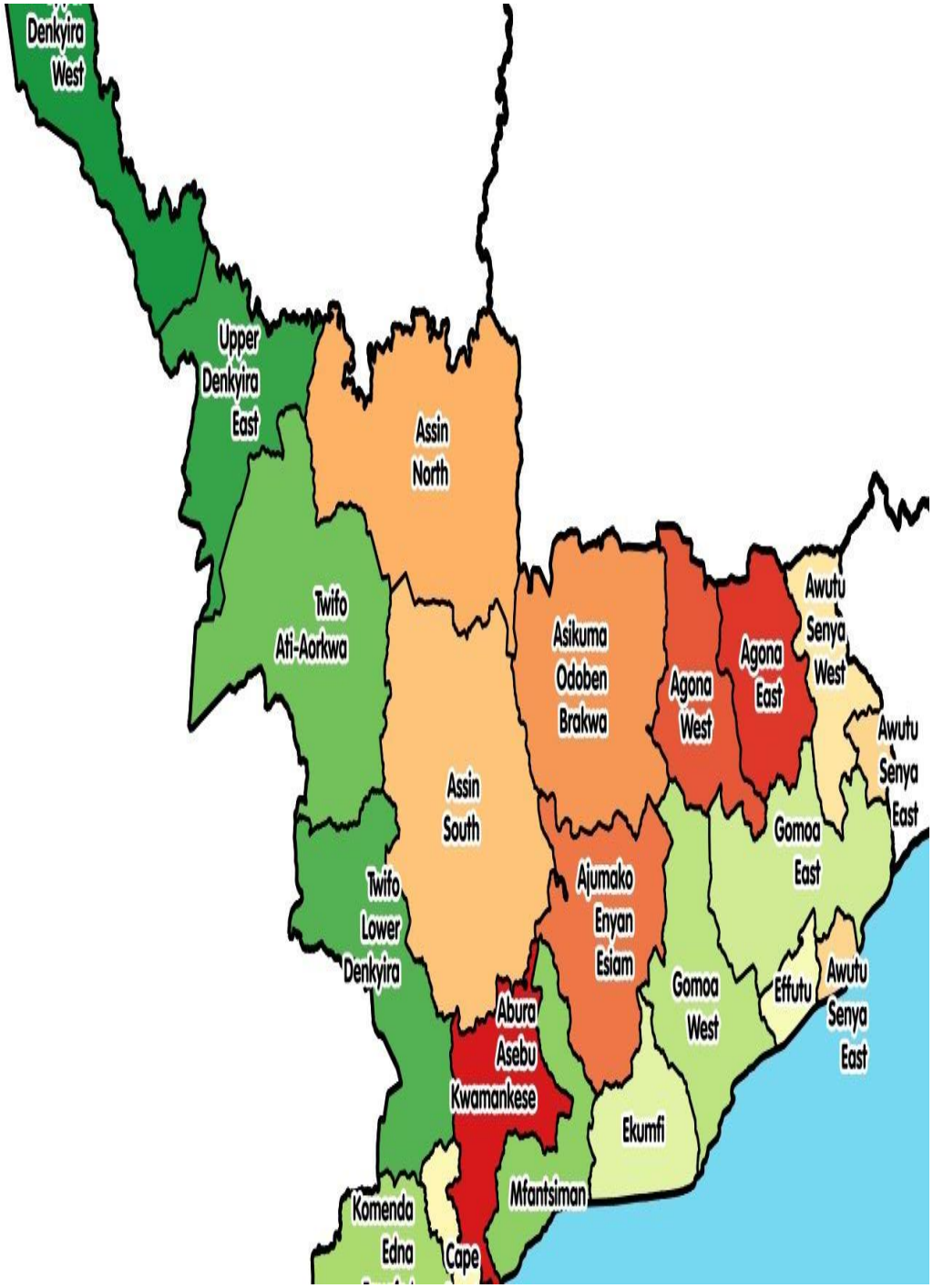
APPENDIX G4: Administrative Map of Bono Region, Ghana



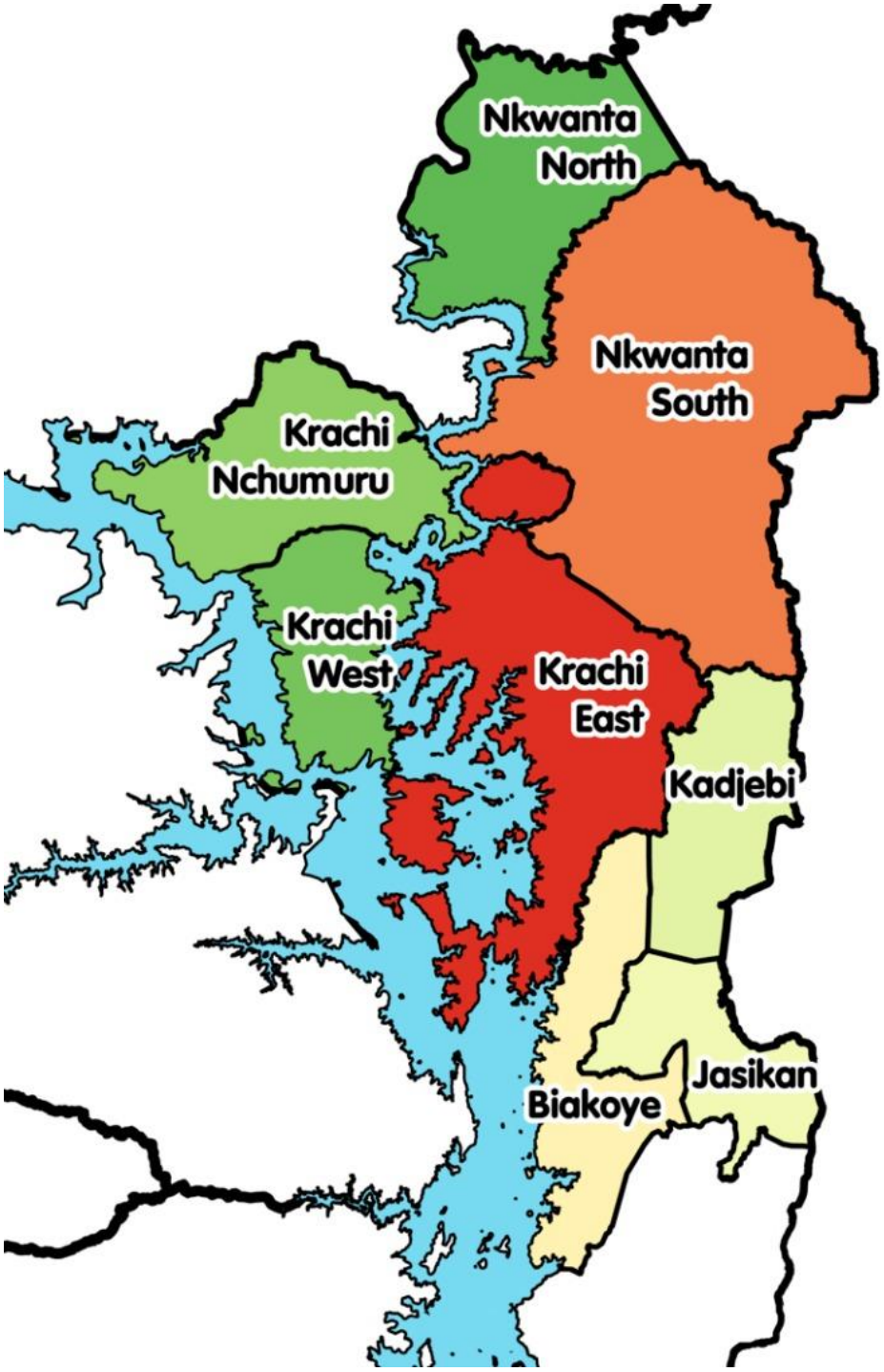
APPENDIX G5: Administrative Map of Bono East Region, Ghana



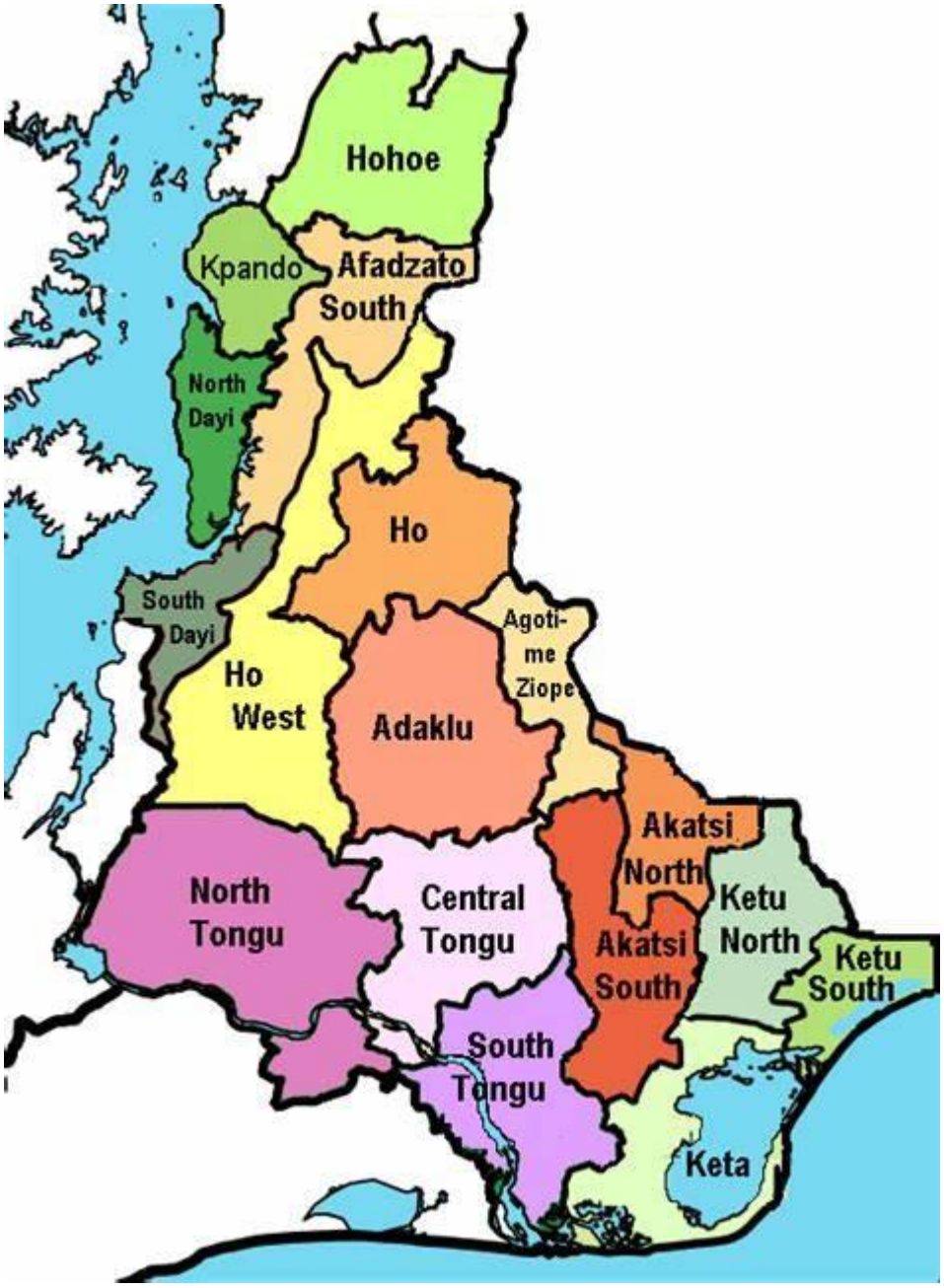
APPENDIX G6: Administrative Map of Central Region, Ghana



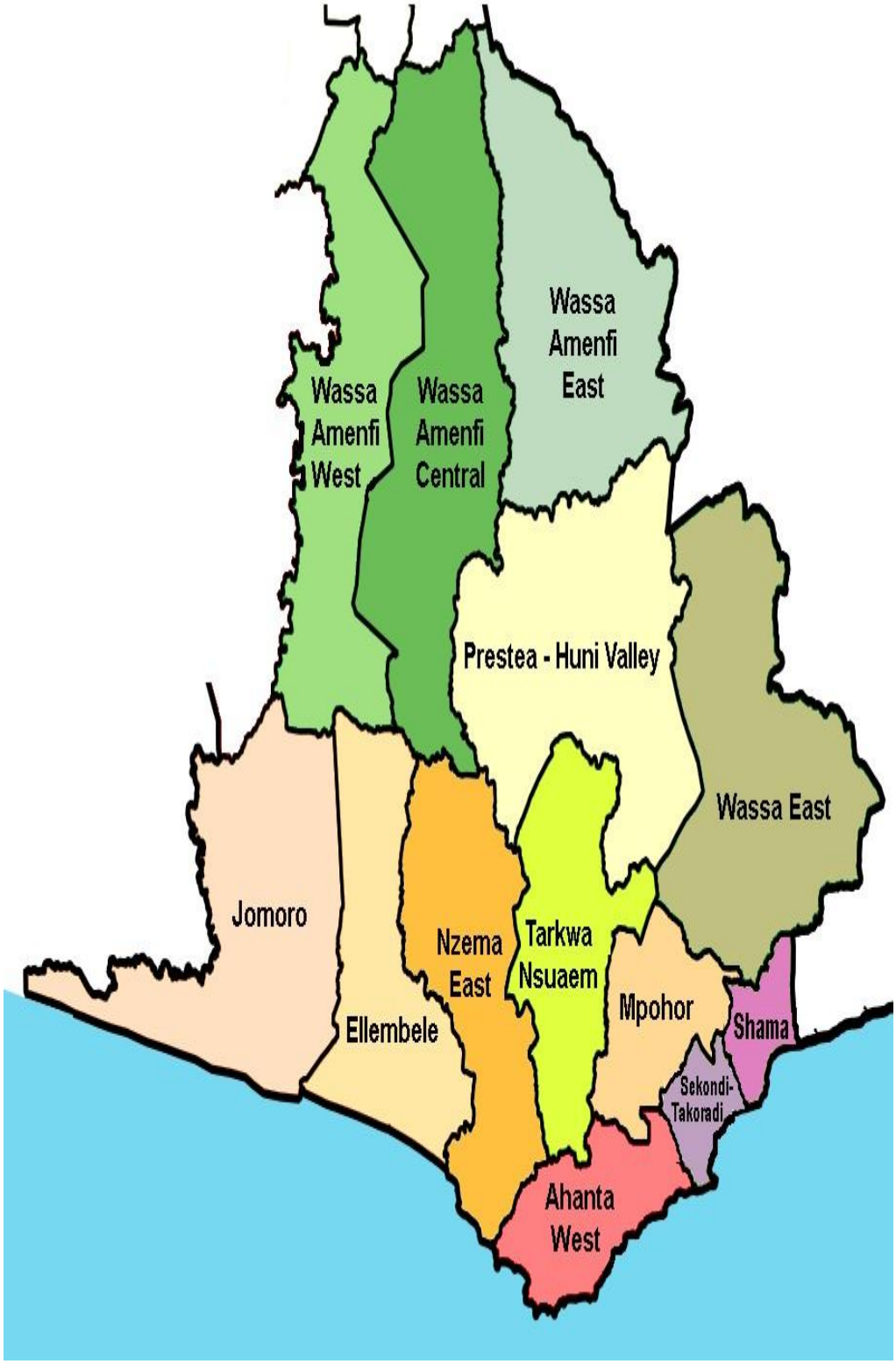
APPENDIX G7: Administrative map of Oti Region, Ghana



APPENDIX G8: Administrative Map of Volta Region, Ghana



APPENDIX G9: Administrative Map of Western Region, Ghana



APPENDIX G10: Administrative Map of Western North Region, Ghana