

**ATTITUDE TOWARDS EXAMINATION CHEATING AMONG UNIVERSITY
STUDENTS IN KENYA: AN ATTRIBUTION TO ACADEMIC AND NON
ACADEMIC STRESS LEVELS**

BY

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DECLARATION

DECLARATION BY THE STUDENT

This thesis is my original work and has not been presented for any degree award in any other university.

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DEDICATION

This thesis is dedicated to my mother Sally Tonui

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ABSTRACT

Exam cheating is a common problem in Kenya and affects both the lower and higher levels of education. Earlier studies in Kenya have investigated the methods of exam malpractices that have been used by students. This study examined the academic and non-academic stressors among university students in the western region of Kenya. The purpose was to determine the relationship between the Kenyan university students' stress levels and their attitude towards exam cheating. The level of stress was the independent variable and the attitude towards exam cheating was the dependent variable. Mediating variables included gender, the level of education, the type of university and age. This study adopted a post-positivist paradigm, a quantitative research method and correlation research design. The study was conducted among Bachelor of Education students from universities in western Kenya. It was based on attribution theory and cognitive appraisal theory. Attribution theory is concerned with how individuals interpret events and how this relates to their thinking and behavior. Cognitive appraisal theory proposes that there is a mediational process between a stimulus (input) and response (output). The study population was Bachelor of Education students in western Kenya. A sample of 450 undergraduate students was selected from the schools of education of participating universities. Three questionnaires were used to collect data. The first was titled Academic Stress Level (ASL), the second was Non-Academic Stress Level (NASL) and the third was titled Exam Cheating Attitude (ECA). The instruments were validated using discriminant and construct validity which yielded 0.7 and 0.5 respectively. A pilot study was conducted at the University of Masinde Muliro. The data obtained was analysed using descriptive and inferential statistics. The descriptive statistics used included percentages, frequencies, means and standard deviation. The inferential statistics used were t-test, one-way ANOVA, and Pearson correlation. These statistics determined the relationships between Academic Stress Level and Exam Cheating Attitude likewise the relationship between Non-Academic Stress Levels and Exam Cheating Attitude at the 0.05 level of significance. The study found out that there was a significant difference on academic stress level based on gender and the year of study. There was also a significant variation on non-academic stress levels based on the year of study and university type. The first year students had higher mean for the non-academic stress levels than the other years. On examination cheating attitude a higher percentage of the students expressed an ambivalent attitude with a significant difference based on the year of study and the type of university. It was also found that there was a positive correlation between academic stress level and examination cheating attitude. There was also a significant positive correlation between non-academic stress level and examination cheating attitude. Based on the findings it was concluded that most university students experienced high level of academic stress and female students were found to experience higher academic stress levels than male students. It was equally concluded that there was a significant positive relationship between stress levels and exam cheating attitude. This study recommends that universities should create avenues of helping students to cope with stress as this may enable them to curb cheating in examinations.

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LIST OF ACRONYMS

ACT	American College Testing
ANOVA	Analysis of Variance
ASCE	The Attitude Scale on Cheating in Exams
ASL	Academic Stress Level
ASLI	Academic Stress Level Index
CAB	Cognitive Affective Behavioural
CAT	Continuous Assessment Test
CUSS	College Undergraduate Stress Scale
DES	Dental Environmental Stress
ECA	Exam Cheating Attitude
ECAI	Exam Cheating Attitude Index
EXAM	Examination
GCE	General Certificate of Education
GPA	Grade Point Average
KCSE	Kenya Certificate of Secondary Education
KNEC	Kenya National Examination Council
NASL	Non-academic Stress Level
NASLI	Non- Academic Stress Level Index
QQI	Quality and Qualifications Ireland
SAT	Scholastic Achievement Test
SSCT	Science Students Cheating Tendencies Questionnaire
SSR-I	Student Stress Inventory-Revised
USSS	University Students Stress Scale

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter presents background to the study, statement of the problem, purpose of the study, objectives of the study, research questions and hypotheses of the study. It also brings to view the significance of the study, assumptions of the study, limitations, the scope, theoretical framework and operational definition of key terms.

1.2 Background to the study

Globally university education is a critical component of human development. Through the system the students acquire high-level skills necessary for the labour market through training as teachers, doctors, nurses, civil servants, engineers, humanists, entrepreneurs, scientists and social scientists, among many. These trained individuals can develop the capacity and analytical skills to drive local economies, support civil society, teach children, lead effective governments, and make important decisions affecting their lives and societies as well.

University life exposes students to many aspects that require them to take full individual responsibility. If the students slip from taking charge they are bound to be overwhelmed. Chambel and Curral (2005) maintain that many aspects of university life have the potential to cause stress including fulfilling academic requirements, life styles, poor time management, living conditions, preparation for exams, conditions of sitting for exams, social and administrative issues. Phelps (2005) asserts that working towards exam makes people feel a lot of pressure. Concurrently Chambel and Curral (2005) reiterate that

examination is dreaded by both the examiner and examinee because of its potential to cause stress. Both the academic and non-academic activities may act as a source of pressure to the student. Kamarudin, Aris, and Ibrahim (2009) render that too much stress can interfere with student's preparation, concentration, and performance but positive stress can be helpful to students by motivating them to peak performance.

Academic work can be stressful to students at any level. Reddy, Menon and Thattil (2018) confirm that some of the causes of stress for students in college include completing work on time. Students may underestimate the amount of time it takes to complete reading and writing assignments, to print out copies of their work, or to travel to school. Missing deadlines, regardless of the reason, is stressful, especially because missing work leads to falling behind. Even well-prepared students will experience stress, especially if they spend a lot of time on assignments but do not receive the grade they expected. In practice, however, doing quality work and turning it on time is a challenge that can easily lead to stress, especially when unforeseen events occur. Stress is an inevitable part of life; it can take a toll on students' physical health, emotional wellbeing, and academic success unless they learn to manage it appropriately (Grace, 1997).

College students experience stress related to changes in lifestyle, increased workload, new responsibilities, and interpersonal relationships (Gibbons, 2012). Concerns regarding classes, relationships, and money are among the top stressors experienced by college students. Navigating a large university system can also prove to be intimidating or even stressful to students. Ross, Niebling and Heckert, (1999) observed that 55% of students, in a New York university, claimed their biggest stressor to be academic in nature. Also 6 in 10 college students report having felt so stressed they couldn't get their work done on

one or more occasions. Extreme levels of stress can hinder work effectiveness and lead to poor academic performance and attrition (Gibbons, 2012; Champell & Curral 2005). Sincero (2012) explains that performance levels increase when stress management is effective. Stressors such as pressure and demands can facilitate better stress response and thus, higher levels of performance. Low pressure or low levels of stress results to a person's stress response as boredom or unchallenging. Even if the task is of great importance, in the absence of an appropriate level of pressure, attention and concentration to perform the task are significantly low.

Ministry of education (2008) established that Kenyan university education plays a crucial role in national development.

Besides playing a crucial role in development university education in Kenya is considered prestigious and it is mostly the dream of many young people to acquire a university degree. Likewise parents and teachers at lower levels encourage the young to work hard in order to qualify to join the university. For the student, university brings to them new and unique experiences in addition to offering a major shift in life. Socially, the students meet new friends, form new relationships and are open to more freedom of choice than they were before. They are more empowered economically since most get money more than before from government sponsorship and others get from their parents if they are privately sponsored. This economic empowerment is a departure from high school experience and this can possibly make them to change their way of behavior for instance some may engage in alcohol abuse and may miss to attend to their academic work, (Wangeri, Kimani & Mutweleli, 2012). Gudo (2014) relates that students in public universities get financial support from the government which to some may induce stress

rather than reduce. They also experience a major shift academically since they get exposed to new academic content, different methods of content delivery, and testing among many changes that emerge. Thawabieh and Quaisy (2012) state that the transition of students from high school to university has social, mental and academic impact on them. Misra and MacKean (2000) established that academic stress is caused when teachers, parents, and student's own expectations exceed what the student believes she or he can realistically achieve. Stress and test anxiety contribute to an extent to student's attitude towards exam cheating. Stress acts as a threat to students therefore driving students to look for ways of coping with academic stress. Exam is a major source of stress affecting university students and it also emanates from too much workload or other foundations of academic related stress. Some students become anxious when exams approach making them to feel blank and unable to reason which eventually makes them to look for ways of escaping the ordeal, (May and Casazza, 2012). This way of escape may involve scheming methods of how to pass their exams. The consequences of failure are considered by students to be weightier than being caught cheating in an exam. The students' perception of failure is that it leaves a permanent mark in the certificate and should be avoided by all costs but a disciplinary case will be dealt with and the matter is brought to an end. McCabe and Trevino (1996) in their study hypothesized that contextual factors have more influence on student cheating behaviors than individual or personal characteristics. One such contextual factor is the students' perceived pressures to succeed. Therefore more external or contextual reasons such as stress, course and program requirements, and expectancies to graduate could be considered used as

justification for academic dishonesty by either the postgraduate or undergraduate students.

Andrews and Wilding, (2004) underscore that stress causes feelings of threat that make the mind to shift into self-preservation mode thus can even lead to immoral decision making. Kouchaki and Desai (2014) conducted a study which found out that when under strained conditions, human beings may become selfish. The study consisted of 63 participants split into two groups. One group listened to calm music and the second group listened to Bernard Hermann's psycho-score induced anxiety. The groups were then put in front of a computer to complete a task where there were obvious options made available to cheat. There was a track on how many times a group used the cheat. It was found that the non-anxious student's averaged 19 times whereas the anxious groups averaged 24 times. The conclusion of the study was that the more threatened human beings are the more liable they are to cheat. When an individual is stressed the priority is self-preservation which is a defensive mode that affects human morality. Stress from different sources impairs students' academic performance. Poor performance may facilitate a certain attitude towards cheating. On the contrary even those who maybe experiencing eustress may be pressured by the desire to do well as expected by the family and may also resort to cheating in order to maintain high level performance.

According to Wasanga (2007) cases of exam cheating in Kenya, have been reported at all levels of education. At lower educational levels, reports of exam leakages and other irregularities have become a common feature during the national examination period and the release of exam results by The Kenya National Examination Council (KNEC). Examination cheating is also common in universities because of the competitive nature of

life. It is important to know the extent of the stress they may undergo and how this may affect other areas of their lives. This study sought to understand the relationship between stress level and exam cheating attitude among university in Kenya.

In Kenya, universities are given the mandate to set their academic programmes and standards (National Rights for Law Reporting, 2012). Concerning academics for instance, students are required to get academic transcripts as evidence of courses taken and the grades attained in each course as per relevant University grading system. The preparation of transcripts is dependent on the receipt of complete, accurate and up-to-date consolidated mark sheets from the faculties or institutes or schools. Similarly when an undergraduate student fails the examination by scoring below 40% the result would be to sit for supplementary exams. However if the student fails more than 25% of the units offered in a particular year he or she is required to resit the course. A discontinuation happens when a student fails to sit for examinations with no good justification or fails to attain the pass mark in more than 50% of the units offered in a particular year. These are some of the requirements that university students in Kenyan universities are required to meet.

Success in university education is measured by the achievements a student attains in the course units he or she undertakes. Ayieko (2013) informs that the University of Nairobi exam rules and regulation require students to familiarize themselves with examination rules set for every course and are expected to fulfill the examination requirements for every semester. At the beginning of every semester students are expected to register for the courses they will take in that semester and are expected to attend all the classes for the courses they have registered. Students sit for continuous assessment tests (CAT)

which constitute 30% and final examination which makes up 70% for undergraduate. Transcripts are issued at the end of academic year (Ayieko, 2013). Any form of cheating in examination is prohibited and if it happens the student will be expelled and will not be eligible for any other program in the university. Those who are not able to meet the requirements can engage in exam malpractices.

It is also a requirement that students who fail to attain the required pass mark will be allowed to resit the exams. A candidate who fails to satisfy the examiners in the second resit examination shall be subject to discontinuation if the failed course is a core course or change the course if the failed paper is an elective (Ayieko, 2013). Besides these academic requirements students also have other activities outside the academic environment such as social events, sports, theatrical endeavors, musical events, religious activities, entertainment activities and environmental organizations among other.

In Kenyan universities students may face numerous challenges during their study period emanating from their environment. The stress can be attributed to internal or external causes. Internal stress has to do with personal goals, expectations, standards, perceptions, desires, personality, problem-solving abilities, and social support system (Misigo 2015; Wangeri, Kimani and Mutweleli 2012). These internal stress causing factors can influence the individual positively or negatively from within himself or herself. Misra and MacKean (2000) reiterate that stress conditions can be real or just perceived by the individual. External causes of stressors are forces from outside that cause stress for example unhealthy living environment or issues of relationships. The individual does not have much control over external stressors, because the source is more than likely out of

control. Achor, Crum, and Salovey (2013) observe that human brain reacts to causes of stress by releasing stress hormones equal to the degree of stress felt.

Other potential sources of stress include excessive homework, unclear assignments, and uncomfortable classrooms (Shannone, Bradley and Teresa, 1999). In addition to academic requirements, relations with faculty members and time pressures may also be sources of stress (May and Casazza, 2012). These stressors are also common to many Kenyan university students. In Kenya university life for students begin with a lot of excitement because for most of them it is a time to be free from high schools strict regulation and parental control. Once the students are settled and begin their classes, they are given assignments, term papers and continuous assessment tests. They are also given timelines for their work by their lecturers (Wangeri, Kimani & Mutweleli, 2012). Not surprisingly, the students find that the workload of college is significantly more involving than of high school and it comes with less hand-holding from parents and teachers. Misigo (2015) corresponds that even though university students encounter many exciting experiences they are equally faced with stress which impact on their psychological wellbeing as well as their academic achievement.

With challenging classes, scheduling issues to coordinate, difficult tests and other academic obstacles, coupled with the more independent nature of the college learning structure, many new and returning students find themselves studying long, hard hours (Palmer, 2005). University students are exposed to complex challenges due to the dynamic nature of the society. University education is the preferred option in the face of limited job opportunities. Those who qualify for university admission must achieve good grades and the same trend of competitiveness continues through university and over to

the job market. University students are also considered mature enough to manage their own affairs in and out of campus. Owing such settings university students are bound to experience academic and non-academic stress.

Exam cheating seems to be problem affecting most universities. Shon (2006) agrees that it is a very well-known problem in most institutions that is often ignored. Adelaide (2003) relates that there is adequate consensus among researchers that cheating is widely practiced by students and has posed a challenge across college campuses. Because of this cheating in examinations has been adopted as one of the ways of study among university students. Shon (2006) carried out a research using in-depth narratives from 119 students enrolled in a criminology class. The study examined a variety of tactics used to cheat during an in-class examination but did not look into the root cause of the problem. Another study by Adelaide (2003) considered integrity issues by looking at perception of student towards dishonesty. The study used a survey method in which the students dialed self-reported instances of academic integrity.

Despite the fact that there are measures to regulate examination in all universities in Kenya many cases of cheating are evident. Ruto, Kipkoech and Rambaiei (2011) divulge that exam cheating in Kenyan universities is a common phenomenon that has attracted the attention of scholars and relevant authorities. This is affirmed by Shon (2006) who states that there is adequate consensus among researchers that cheating is widely practiced by students and that this poses a serious problem across college campuses.

Studies of student behavior and attitudes show that a majority of students violate standards of academic integrity to some degree, and that high achievers are just as likely

to do it as others. Moreover, there is evidence that the problem has worsened over the last few decades simply because students have become more competitive, under more pressure, and worse still behaviour is abetted by the adults around them. The attitude of cheating is found among students struggling to survive and the top performers as well, (McCabe, Butterfield & Trevino, 2012). Shon (2006) established that the attitude among students at elite colleges is that they want to be famous and successful, and that students in other colleges were engaged in cheating. Furthermore students felt that if they do not do so they will be damned and consequently lose out but if they cheat it will pay back some day.

McCabe, Butterfield and Trevino, (2012) articulate that educators need to work together with students to build academic integrity on campus by designing a system that supports academic honesty, trust, and accountability. Schacter, Gilbert and Wegner (2011) point out that beliefs, behaviour and attitudes can be changed through persuasion which entails using one's position or personal resource to change people's behaviours or attitudes. This may mean that a university lecturer can use his or her position to influence students' attitude towards cheating and consequently actual act of cheating.

This study aimed at understanding the stress levels of university students based on the demographics variables because individuals and certain groups may possess certain perception towards stress. The levels of stress were examined at two levels; the academic stress level and non-academic stress levels. It also examined the attitude of university students towards cheating in exams based on the same length. Subsequently the relationship between stress levels and attitude towards examination cheating were correlated.

1.3 Statement of the problem

The problem that this study sought to examine was the relationship between the levels of stress and exam cheating attitude among university students in western region in Kenya. Stress experienced by students emanate from their academic and non academic environment. Although stress is universal people give different interpretations to stressful events. This study therefore sought to examine the levels of stress from academic and non academic environment.

When stress level is higher this may hinder students from living an effective life because they feel overwhelmed by the stress. Their academic achievement as well as their social life is negatively affected. This calls for the need to enquire into the academic and non-academic stress levels among university students. Research on different aspects of stress has been conducted but most have not focused on the level of stress. There is also little that has focused on the area of study and the same the target population.

Examination cheating is also a problem in universities in Kenya universities students in Kenyan universities students commonly engage in examination cheating and other academic malpractices. Examination cheating is a complex problem and it has been hard to eradicate it. McCabe, Butterfield and Trevino (2012) affirm that academic dishonest behavior and cheating is a familiar problem for any university, but it is often not very well known. Based on this sentiment and the intrigues of the problem this study chose to look into the attitude of students towards examination cheating. The root of the problem was considered most likely to be in the attitude. Most of the researches done have focused mainly on the methods that have been used in exam cheating. Some have surveyed the extent of cheating but little consideration has been done on the attitude.

Knowledge that is gained on the attitude can be used to shape the attitude of students towards examination cheating.

Stress levels and examination are problems that exist independently among university students. This study was interested in looking at the relationship between the two. Students can make attribution of their examination cheating attitude to stress levels if relationships exist between the two variables. There is very little research that has been designated to the relationship between the two problems and therefore this research strongly filled this gap.

This study foresaw the possibility a correlation stressful experiences to the attitude towards exam cheating. Muthoni (2013) relates that stressful experiences motivate individuals to engage in different behaviours and mostly those that are negatively motivated. Akaranga and Ongong (2013) also attributes exam cheating to stressful academic experiences caused by incomplete lectures, overcrowding, poor invigilation and poor academic and physical infrastructure in Kenyan universities. According to Akinyi (2017) students at Moi University in Kenya don't like exams because of the challenge that it brings. According to her, fear of exams is what makes them to think critically on how to overcome the challenge and it is possible that they may adopt dishonest means in an examination as a way of overcoming the stressful situation they find themselves in.

1.4 Purpose of the study

The purpose of this study was to determine the extent to which examination cheating attitude could be attributed to academic and non academic stress levels among university students in western Kenya. It examined mediational effects of gender, university type,

year of study and age on academic and non academic stress levels. The same was also applied to examination cheating attitude.

1.5 Research variables

The independent variable of this study was stress level and the dependent variable was examination cheating attitude. Mediating variables were gender, type of university, year of study and age.

1.6 Objectives of the study

This research sought to achieve the following objectives

- i. To establish the levels of academic stress levels among university students based on gender, the year of study, age and the type of university.
- ii. To determine the non-academic stress levels based on gender, the year of study, age and type of university.
- iii. To find out the attitude held by university students towards exam cheating on the basis of gender, year of study, age and the type of university.
- iv. To probe the relationship between the stress levels and exam cheating attitude among university students.

1.7 Research questions

This study attempted to answer the following research questions;

- i. What was the influence of demographic factors on academic stress levels among university students based on demographic variables?

- ii. What was the influence of demographic variables on non-academic levels of stress among university students?
- iii. What was the influence of demographic factors on the attitude towards exam cheating among university students have?
- iv. What was the relationship between academic stress level and exam cheating attitude?
- v. What is the relationship between non-academic levels and the attitude towards exam cheating among university students?

1.8 Hypotheses

The following hypotheses were formulated and tested;

- HO₁ There is no significant difference in the academic stress level among university students based on the demographics.
- HO₂ There is no significant difference in the non-academic stress level among university students based on the demographics
- HO₃ There is no significant difference on exam cheating attitude based on demographics.
- HO₄ There is no significant relationship between academic stress level and exam cheating attitude.
- HO₅ There is no significant relationship between non-academic stress levels and exam cheating attitude.

1.9 Justification of the study

University students in Kenya face various challenges in the course of their university education. There are various types of challenges that students face but can be categorized into academic and non-academic problems. These problems cause stress to students and thus classified as stressors. These stressors occur daily and they cannot be avoided or controlled by the students. It is necessary to know the levels of stress that students experience so that they can be equipped with means of better coping mechanisms. If students are not well equipped with stress coping mechanisms their academic achievement and social life can be jeopardized. Stress may not be eliminated but better coping mechanisms can reduce the level of stress among university students thus allowing them to obtain optimum wellbeing.

In Kenya University degrees with exemption of medicine are classified as first class honors, second class honors and at the lowest is a pass. The class that a student achieves determines academic advancement. Some employers also offer jobs on the basis of the class of degree obtained. Scholarships for further studies are also offered based on merit. This makes the students to go out of the way in order to achieve better grades. This desire to do better may shape the attitude that the students hold towards examination which determines the behavior of a student in the exam room. This has probably escalated exam cheating tendencies. If reduction of the same can be achieved then the integrity of university degrees and equity in offering scholarships and jobs can be achieved.

The problem of exam cheating has continuously been reported at various levels of education in Kenya. There is need to curb the problem so university examination may

gain more credibility locally and internationally. University education in Kenya has been expanding fast and therefore there is need for appropriate examination management. The conclusions and recommendations of is study may be used to suggest ways of dealing with exam cheating.

The need to understand the relationship between stress levels and exam cheating attitude among university students in Kenya justified this study. The two variables have been common problems in most universities in Kenya. The findings of this study can be used can contribute towards the reduction of exam cheating tendencies.

1.10 Significance of the study

This study was intended to provide empirical evidence on the extent to which levels of stress among university students in Kenya relates to their exam cheating attitude. The findings of the study can be used to sensitize students on stress coping skills. The findings of the study can be used to provide additional information to university staff on the levels of stress among their students. This can help them to put measures that can moderate stressors within university system. Causes of stress may never be totally eliminated but proper coping skills and stream lining of university operations can help bring stress levels to optimum point.

University counselors can benefit from the findings of this study by drawing their attention towards more accessible counseling programs to assist those who may be experiencing high levels of stress. This can help them to tailor their counseling programs towards supporting the students to experience a more effective life at university.

The findings can also benefit the Deans in the schools of education since the outcome may also be used to give additional information concerning the levels of stress and attitude held by their students towards exam. The findings of this study may be used to suggest ways on how to curb the factors contributing exam cheating tendencies.

1.11 Assumptions

The assumptions of this study included the following;

- i. The sample size was representative enough to allow generalizations of the results to other universities. Probability was used to select the sample in order to ensure that every student in the target population gets the chance to be selected.
- ii. That the theory of cognitive appraisal was suitable enough to explain the relationship between the dependent and independent variables. Conceptual frame was developed to merge the views of the theory with those of the researcher.
- iii. The questionnaires that were used adequately captured the information needed.
- iv. That the respondents were able to adequately present their attitude toward exam cheating.
- v. The instruments used to collect data enabled the respondents to accurately respond to the items.
- vi. The time the data was collected did not affect the way the response to the questionnaire.

1.12 Limitations

Self-reported questionnaires were used to collect data which did not guarantee the objectivity of the information given. On the same note it was also not possible to guarantee exhaustive responses since the questionnaires were mainly based on close ended items. The responses may not have accurately reflected the very true feelings of the respondents since the items gave the respondents limited options. This may have hindered effective responses. This was dealt with by using the likert scale to get as varied responses as possible

This research used a sample as opposed to the whole population and the generalization of results could only be made to the research population. Stress and exam cheating attitude is a problem across all groups of students but this study chose to use those pursuing Bachelor of Education.

There are several factors that can influence stress levels. This study organized stress levels on the basis of academic and non-academic stressors. There are also several factors that can contribute to exam malpractices but this study was only limited to how attitude can influence examination practices

1.13 Scope of the study

The dependent variable was the attitude towards cheating in exams and the independent variable was the levels stress. Gender, year of study, type of university and age were the mediating variables. Data collected was on stress levels and was done using two types of questionnaires; Academic Stress level (ASL) and Non Academic Stress level (NASL) scales. Data on exam cheating was obtained using Exam Cheating Attitude (ECA) scale.

Each questionnaire used five point likert scales. For the stress level the responses ranged from not stressful (NS) to extremely stressful (ES). For exam cheating attitude the responses ranged from strongly agree (SA) to strong disagree(SD)

It was based on the attribution theory by Heider (1958) and cognitive appraisal theory by Lazarus (1984). A conceptual frame work referred to as cognitive attribution model for exam practice (CAMEP) guided the collection and analysis of data.

The study was conducted among Kenyan university students in western part of Kenya. This included public and private universities in the former provinces of Rift Valley, Western and Nyanza. Samples were drawn from schools or faculties of education involving undergraduate students from first to fourth year.

1.14 Theoretical framework

The study was based on two theories; the attribution theory and cognitive appraisal theory also called the transactional theory. Attribution theory was used to explain how examination cheating attitude could be attributed to stress levels. Cognitive appraisal theory was used to explain the stress levels. Examination cheating attitude and stress levels are problems that co exists independently and the interaction between the two could not be addressed by one theory.

Attribution theory was used to Psychological research into attribution began with the work of Heider in the early part of the 20th century and was subsequently worked on by Harold Kelley and Bernard Weiner (Markus, 2010). Attribution refers to the ways in which humans explain the causes of their behavior and actions. Heider (1958) proposed that people seek to justify events that occur by assigning meaning to certain factors. In

this study the assumption is that university students may use their academic and nonacademic experiences to explain and justify their attitude towards cheating in examinations. Attribution theory addressed the connection between exam cheating attitude and stress levels.

Heider (1958) found that it is very useful to group explanation into two categories; Internal or personal and external or situational attributions. Internal attributions refer to the inference that a person is behaving in a certain way because of something about the person, such as attitude, character or personality. This implies that students may engage in exam cheating because of inability to cope with stress or because of the pressure they face and more so even the desire to excel. Heider concluded that when an internal attribution is made, the cause of the given behavior is assigned to the individual's characteristics such as ability, personality, mood, efforts, attitudes, or disposition. In the case of this study the behavior which is examination practice is attributed to the attitude held by university students. External attributions are the inferences that a person is behaving in a certain way because of something about the situation he or she is in.

When an external attribution is made, the cause of the given behavior is assigned to the situation in which the behavior was seen such as the task, other people, or luck. The theory takes the view that the individual producing the behavior did so because of the surrounding environment or the social situation.

In this study attribution process is assumed to occur when students attribute their examination cheating attitude to academic and non academic stress levels in their

environment. The fact that there are stressful academic and non academic environment within the university explains why students may attribute their exam cheating attitude.

This study assumed that the academic and non academic stress causing factors in the university make students to justify their attitude towards exam cheating as part of internal attribution. However the theory does not explain how it occurs and therefore the cognitive appraisal model is adopted. This will assist in explaining how the relationship between the levels of stress and attitude towards exam cheating may be formed.

The second theory is the cognitive appraisal theory. Cognitive theories assume that mediational processes occur between stimulus (input) and response (output). The mediational process is a mental event such as memory, perception, or problem solving. According to cognitive psychologists behavior can be understood by these mediational processes as shown in figure 1.1 below.

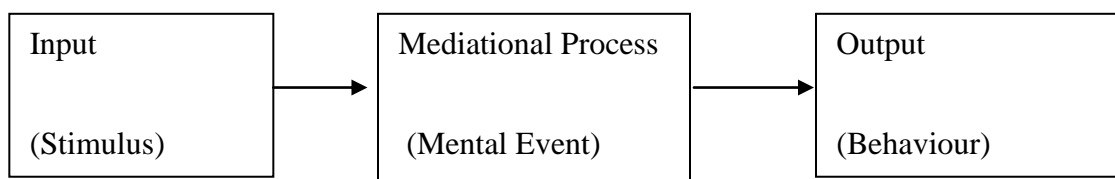


Fig. 1.1 Cognitive model

In the cognitive model above the input or stimulus refers to the situations a person can find himself or herself in. It is the information received from the environment. Mediational process refers to the automatic thoughts and images one develops after exposure to stress. It could be perception, memory, attention or problem solving. The

output refers to the reaction a person has towards the event. This is seen from the behavior that a person takes.

The cognitive appraisal theory of stress was developed by Richard Lazarus, (Lazarus 1984). Appraisals refer to direct, immediate, and intuitive evaluations made on the environment in reference to personal well-being (Yap & Tong, 2009). They are evaluative frameworks that people utilize to make sense of events. He suggested that an individual's stress level is directly affected by their cognitive appraisal of the event that triggers the stress. According to Lazarus (1984), stress is a two-way process. The first process involves the production of stressors by the environment, and secondly the response of an individual subjected to these stressors.

The theory suggests that there is a primary and a secondary appraisal. Primary appraisal occurs when a person recognizes an impending threatening or stressful event and evaluates the significance of the event. During this phase, a decision is made about whether the event poses a threat, will cause harm or loss, or presents a challenge. Secondary appraisal involves people's evaluation of their resources and options for coping. During this process, a person decides what coping options are available (Lazarus, 1991).

University students interact with their academic and nonacademic environment on a daily basis. They give cognitive appraisal of the stressful situations. This takes place in two phases; primary appraisal and secondary appraisals. In the primary appraisal the students award significance to their academic achievement. At this point the levels of stress can be

assessed where the students can state whether the experiences they are going through are stressful or not.

Cognitive appraisal is the personal interpretation of a situation, which in this research was presented as the levels of stress. The levels of stress are an outcome of the appraisal that students make out of their stressful situations. Academic and non-academic stressors correspond to the stimuli as proposed in the cognitive appraisal model. This was expressed in the rating of the event either as low stress, moderate or high stress. The input in this study was therefore the independent variable. Meditational process is the evaluation that goes on in the mind of the student concerning the stressful event. Different people evaluate their stress differently. This allowed the use of different demographic variables as the mediating variables. The output (response) refers to the actions that students take after awarding an appraisal to their stressful situation. When students perceive stress as threat to their academic success they adopt measures to deal with the stressful situation. In the secondary appraisal the students comes up with a means of coping with the stress. According to Lazarus this leads to direct actions or cognitive reappraisal process. This study assumed that it is at this secondary level that the attitude towards cheating in exams may be formed. The attitude was treated as the cognitive reappraisal.

There was need in this study to find the relationship between stress levels and examination cheating attitude. Appraisal was used to explain the interaction between the two variables. The attitude of students towards exam cheating may be shaped by the situation the academic and non academic challenges they face. The attribution that students make between stress level and examination cheating attitude was observed

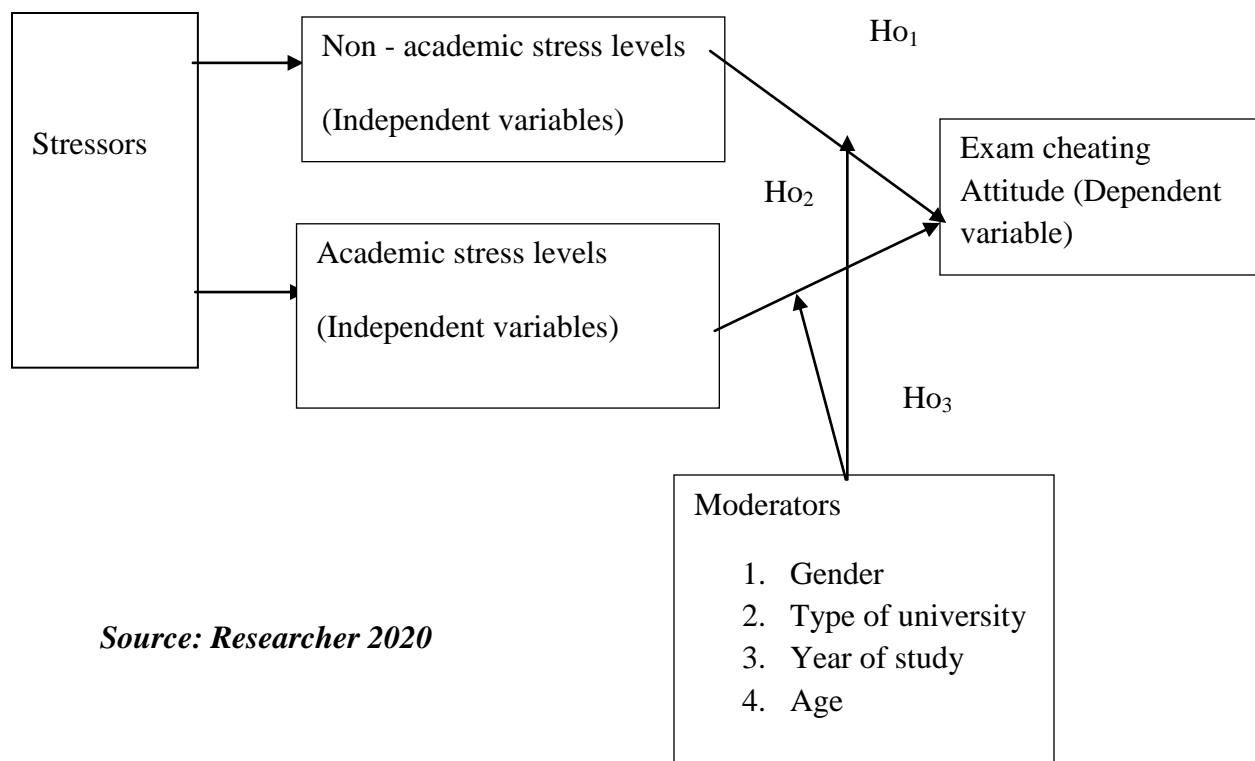
through the correlation between the two variables. The two theories also led to the formulation of conceptual framework which enabled the organization research variables into researchable terms.

1.15 Conceptual Framework

To gain insight of the research variables, the researcher developed a model named The Cognitive Attribution Model of Examination Practice (CAMEP) by which the academic stress levels (ASL) and non-academic stress levels (NASL) correlates with exam cheating attitude (ECA). The model holds that stress levels affect the attitude held by students towards exam cheating.

The concepts of the study are presented in the Cognitive Attribution Model of Examination Practice (CAMEP) as shown in figure 1.2 below.

Figure 1.2 Cognitive Attribution Model of Examination Practice



Source: Researcher 2020

The model above indicates stressors which can be categorized into two levels, the academic stress level and nonacademic stress level. The two levels are the independent variables. Exam cheating attitude is the dependent variable. Gender, type of university, the year of study and age are the moderating variables. HO₁ is the first hypothesis which tests the academic stress level based on moderating variables. HO₂ is the second hypothesis which was used to test the level of non-academic stress based on moderating variables. HO₃ is the third hypothesis which was used to test the relationship between the academic stress level and non-academic stress level based on the moderating variables.

In this study level of stress is conceptualized as the independent variable and the attitude towards exam cheating as the dependent variable. There are many causes of stress but this study examined the academic and non-academics causes of stress. These are varied causes of stress within the student's environment that emerge in the process the students' interaction with their academic and non-academic environment. Student's perception of stress differs and therefore stress will be categorized as high, moderate or low levels.

This study expects that academic and non-academic stress may make students decide how to cope with their examinations. This may push them to turn to cheating in exam as a cover up for their failure to prepare well for examination. It is expected that the act of cheating in exams is guided by the attitude held towards cheating which may be formed after the appraisal of the situation. The students, who appraise the situation positively, may view the daily hassles as a challenge that needs to be overcome. They are expected to be more likely to have positive coping strategies that enable them to come up with positive attitude towards their academic environment. They will ask themselves what those daily hassles mean to them and therefore are not likely to have a positive attitude

towards cheating in exams. Instead they have better problem solving techniques. This enables them to minimize, tolerate or eradicate the stressors by coming up with positive coping strategies such as good time management, carrying out personal research and desire to do well without cheating in exams. They may not opt to use cheating in exams because they have developed coping strategies towards preparation of exams

On the other hand if the students appraise the stressors negatively then they may choose to adopt negative coping practices towards exam. This study expects that the students who give a negative appraisal may adopt positive attitude towards cheating in exams. This may be behaviorally demonstrated by adoption of undesirable problem solving techniques such as seeking leakages, copying another person's work, impersonation, use of phones, writing notes on walls and desks. The students who give positive appraisals to their stressful situations are expected to have positive means of dealing with stress. They are therefore likely to develop negative attitude towards exam cheating.

1.16 Operational definition of terms

The key terms that were used in this study were operationally defined as follows;

Academic stress- refers to the conditions within the learning environments that the students at the university encounter on a daily basis in relation to academic work. They are the daily aggravates or hassles relating to their academic environment. These aggravates are so routine that students may or may not get used to them. It was measured as high, moderate and low.

Academic stress level index(ASLI) – the mean score for academic stress level

Appraisal – is the judgment made by the students that leads to the attitude they hold towards cheating in exam. The appraisal is either positive or negative.

Attitude – the mental state that a student holds about whether they can engage in unethical means to get better marks in an exam or not. This was measured by an exam cheating attitude (ECA) questionnaire. The result was indicated as a positive, neutral or negative attitude.

Demographic factors – the moderating factors examined. These included gender, type of university, the year of study and age.

Examination – has the same meaning as exam. This refers to any evaluation in the school of education in the course of a semester such as assignments, term papers, continuous assessment tests and end of term evaluation.

Exam cheating - this refers to the use of unethical means to get answers in an exam by students.

Exam cheating attitude index (ECAI) – the mean score for exam cheating attitude

Level of stress -Refers to either academic or non-academic stress levels. It is the interpretation that the students award to the stress causing factors that was indicated by a score on a five-point likert scale of an academic or non-academic stressor. The levels of stress were high, moderate and low.

Non-academic stressor (NASL) – source of stress emanating from the physical environment such as in residential or lecture halls. These also included situational

experiences stemming from the social environment such as interpersonal and intrapersonal dynamics. These factors are not directly associated with class work but they indirectly interfere with academic performance. It was measured as high, moderate or low.

Non-academic stress level index (NASLI) – the means score for non-academic stress level

Private university – higher institution of learning that is managed privately and majority of students don't receive government sponsorship.

Public university – higher institution of learning financed by the government and most of the students receive government sponsorship.

Stressors –experiences in the students' environment that are challenging and perceived as stressful to certain extents.

Type of university-refers to either private or public

University student – is a registered undergraduate student pursuing a bachelor of education in either a private or a public university within the period that this study was undertaken.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter has reviewed literature on stress, both academic and non-academic and its causes. It has also captured various views on perception of stress among university students has been highlighted, different levels of stress as well as the levels of stress based on gender. A review on examination, exam cheating and the attitude towards exam cheating has been captured. Finally a conclusion of the review has been made.

2.2 Stress

Selye first used stress as biological term and defined it as “the non-specific response of the body to any demand placed upon it” (Selye, 1978). Stress refers to the body’s way of responding to any kind of demand caused by good or bad experiences. It is usually caused by something around the individual. Stress can be either negative or positive when the situation offers an opportunity to a person to gain something. Negative stress is persistent stress that is not resolved through coping or adaptation. It arises when a person faces social, physical, organizational and emotional problems that become overwhelming. Negative stress also known as distress can also emerge from either over or under stimulation which is a state of feeling uninspired by external influence. Under-stimulation refers to the feelings of stagnation, boredom and lack of inspiration that result from not feeling challenged in a given situation. Under-stimulation may be primarily physical or mental in nature, but generally refers to intellectual boredom(Ogden, 2007).

Positive stress also called eustress acts as a motivator for peak performance and is a product of optimum stimulation. When under stress the fight or flight response arise where the individual feels the upsurge in energy which enhances performance for a limited period (Achor, Crum, & Salovey, 2013). This is due to various parts of the mind and body being stimulated to handle the demands being placed on them. The person's mind will also function clearer and faster due to the various physiological changes that transpire when under stress for example release of more sugar for greater energy and diversion of blood to the muscles for readiness of action (Howard, 2008).

In between the under and over stimulation stages is the stress comfort zone. This zone provides the individual with a heightened sense of awareness and physical ability without it being detrimental to their health and wellbeing(Ogden, 2007; Howard, 2008). It is a psychological state in which things feel familiar to a person and they are at ease and perceive they are in control of their environment, experiencing low levels of anxiety and stress. In this zone, a steady level of performance is possible (White,2010). This implies that the academic environment should be adequately challenging so that students get optimum stimulation to enable them cope with academic and non-academic stress. If students' stress is too low students might feel that learning is boring and may fail to attend to their studies. If the stress is high the students become overwhelmed and are unable complete their work. The comfort zone is ideal for academic environment to be bearable.

2.2.1 Causes of stress among university students

The causes of stress can be attributed to major or minor events and experiences in the life of an individual. Stressors can result from one major event or a buildup of minor events.

Stress can also present itself depending on the perception that individuals hold towards those events and experiences (Thawabieh & Quasy, 2012). The causes of stress can be traced to psychological and physiological demands from the environment causing an imbalance resulting from the disparity between situational demands and the individual's ability and motivation to meet those demands. The physical and psychological demands are referred to as stressors (McLeod, 2010). For university students stressors may be triggered by their academic and non-academic demands.

There can be many causes of stress in the life of university students but in this study the stressors were categorized as academic and non-academic. Brand and Schoonheim-Klein (2009) corroborate that stress among undergraduate and graduate students is multifactorial, arising from both academic and non-academic factors, including socio-cultural, environmental, and psychological attributes. Academic stressors may include weekly assignments, unclear academic requirements, time pressures, relations with staff in respective schools, preparation for exams and uncomfortable class conditions, inadequate contact with the lecturers and rushed course content. Non-academic refers to other situational factors experienced by students but indirectly interfere with their academic performance.

Hirsch and Ellis (1996) relate that students in college are faced with the pressure to perform well. For instance an Ireland study examined 12 potential areas that were commonly reported to cause stress among nursing students. It found out that stress existed in both clinical and academic aspects of the program. Thawabieh and Quasy, (2012) also hint that both academic and financial concerns have emerged as the most stressful areas of students. Misigo (2015) found that some of the stressors for university

students in western part of Kenya were work overload, unpredictable semester dates and inability of some lecturers to start classes as the semester begins.

Struthers, Perry and Menec (2000) reiterate that the pressure to earn good grades and a degree may also act as sources of stress to college students. Pressure by parents and schools to achieve top scores has raised stress levels among students beginning as early as elementary school that some educators regard it as a health epidemic. Reisberg (2000) recognizes that other sources of stress include the pressure to beat deadline and a feeling of being overwhelmed by workload. In the same way poor academic performance often generates negative feedback about the students' performance; consequently leading to stress, anxiety, and depression (Ang & Huan, 2006).

There are a number of studies that have attempted to show the interrelationship between academic stressors and other causes of stress. For instance a study by Neveu, Doron and Visier (2012) conducted in France Montpellier examined the interrelationship of college students' academic stress with anxiety, time management, and leisure satisfaction. It hypothesized that academic stress would show a significant positive correlation with anxiety, and a significant negative correlation with self-reported time management, behaviours and leisure satisfaction of college students. University students can also be faced with stress emanating from social issues. In relation to this across sectional by Thawabieh and Quasy(2012)involving 170 medical students was carried out in Jordan, where most schools are unisex. The study revealed that students usually begin to have relationships with the opposite sex. Due to this and other changes, students potentially experienced different types of stress that affect their social health and their academic achievement. There are many sources of stressors for students during their college life.

The stressors can be external and related to the environment, but may also be created by internal perceptions that cause an individual to experience anxiety or other negative emotions surrounding a situation, such as pressure and discomfort which they then deem stressful (Gibbons, 2012). The foregoing discussion indicates that students in institutions of higher learning experience stress arising from their academic and non-academic environments.

The current study was carried out in Kenya and therefore the conditions of stress may differ from those experienced in other places. This study also specifically examined the causes of stress among male and female students which is not specifically the same in the reviewed studies. It specifically considered the levels of stress to determine the differences between the male and female in different categories. Similar to the reviewed studies, both academic and non-academic causes of stress were investigated and comparisons of findings made.

2.2.2 Academic stress

According to Main (2004) academic stress refers to the demands related to academics that supersede the internal and external resources of an individual to cope. According to Karaman, Lerma, Vela and Watson (2019) academic stress refers to factors in the academic environment such as course work, group project and organizational involvement. Such academic demands can make students feel overwhelmed. Azila-Gbetter, Atatsi, Danku and Soglo (2015) relate that academic stress echoes the perception of academic frustration, conflict and pressure. Academic frustration is the state caused by some obstruction of academic goals. Academic conflict is the result of two or more equal but incompatible response tendency to academic goals. Academic pressure occurs when

the student is under heavy demands of time and energy to meet academic goals. Other key items that have been considered as academic stress factors include examination, deadlines, pressure of combining work and study and poor time management.

A study conducted in a US university by Shannone, Bradley and Teresa (1999) to determine the major sources of stress among college students concluded that academic stress is a product of a combination of academic related demands that exceed the adaptive resources available to an individual. The Student Stress Survey (SSS) that addressed interpersonal, intrapersonal, academic, and environmental sources of stress was used to collect data. The scale consisted of 40 potentially stressful situations which were classified as either daily hassles or major life events. Participants were 100 students at a mid-sized, Midwestern university and varied in year in school, age, gender, and major. The study found that daily hassles were reported more often than major life events, with intrapersonal sources of stress being the most frequently reported source. The top sources of stress were; change in sleeping habits, vacations breaks, change in eating habits, increased work load, and new responsibilities.

According to a study in Ireland it was found that academic stress factors were the leading causes of stress among nursing students. It also found that other factors such as finances and death of a patient were independent sources of stress (Shannone, Bradley & Teresa, 1999). This is a confirmation that daily experiences of students can be stressful.

Negative stress can be detrimental to the wellbeing of students but positive stress can also help students to do better. Cicognani (2011) observed that academic stress and achievement anxiety can have positive effect on motivation. Since students are aware that

their increased stress level may affect their final grades, their stress can therefore make them motivated to give more time and energy into making up for the time spent coping up with stress (Struthers, Perry & Menec 2000).

The predominant cause of academic stress is test anxiety, a fear of failure in an academic setting that arises when parents, teachers or the student's own expectations exceed what the individual can realistically achieve, (Azila-Gbetter, Atatsi, Danku & Soglo, 2015). Kadapatti and Vijayalaxmi (2012) conceptualize test anxiety as a psychological condition in which people experience extreme distress and anxiety in testing situations. Though some degree of stress and anxiety before and during exams can actually impair learning and hurt test performance, a little bit of nervousness can as well make an individual feel mentally alert and prepared to tackle the challenge. Excessive fear, on the other hand, can make it difficult for one to concentrate and may lead to struggle in recalling what has been studied by the student. According to the American College Health Association's (2006) survey of college students, one of the greatest health obstacles to academic performance of students in college was academic stress.

Test anxiety is a physiological condition in which people experience extreme stress and discomfort during or before taking a test. It creates significant barriers to learning and performance (Andrews and Wilding, 2004). Anxiety occurs without an outside stressor and is characterized by feelings of worry and fearfulness. Misra and McKean (2000) suggest that high levels of test anxiety have a direct correlation to reduced academic performance and higher overall student drop-out rates. A student's expectations influences anxiety level for example, if a student believes that she or he will perform poorly on an exam, she or he is far more likely to become anxious before and during a

test. Main (2004) relates that test anxiety can also become a vicious cycle. After experiencing anxiety during one exam, a student may become so fearful about it happening again that she or he may actually become even more anxious during the next exam. After repeatedly enduring test anxiety, students may begin to feel helpless to change their situation. While it may be easier to deal with stress it can be more challenging to treat anxiety. Most people can cope with ordinary stress and continue to function, while anxiety is more likely to interfere with a person's ability to handle normal tasks (Misra & McKean 2000).

During the course of their studies university students experience various challenges in their academic environment that may interfere with their ability to cope. Zaid (2013), states that academic stressors include academic overloads, inadequate time for study, workload every semester, exam awkward and high family expectations. The study involved 232 participants from the faculty of education in King Saud University in Saudi Arabia. Self-administered questionnaires were randomly distributed to students. Data was analysed using descriptive, correlation and ANOVA. The study found that fear of failure was a major source of stress. It found that there was no significant difference in academic stress among students with different level of study and specialization. This study was almost similar to Zaid's study since the population in both cases involved students of bachelor of education. Both also considered academic stress and the level of education as variables. The dependent variable was different since this study took examination cheating attitude as the dependent variable. The areas of study also varied as well as the findings on the level of study.

Al-Dabal, Koura, Rasheed, Al-Sowielem, &Marki (2010)conducted a study among medical students in Damman University in Saudi Arabia on the prevalence and perceived academic stress. The study had a sample of 319medical students and 297 non-medical students. According to the findings, unsuitable teaching methods, unsatisfactory study environments and fear of failure of exams were reported as major causes of academic stress among medical students than the non-medical students. Their study differed with the current study in the sense that it considered teaching methods as one of the causes of stress of which this study did not.

Students report experiencing academic stress at predictable times each semester with the greatest sources of academic stress resulting from the actual act of taking and studying for exams, grade competition, and the large amount of content to master in a small amount of time (Abouserie, 1994; Archer & Lamnin, 1985). This brings out the ideas that when academic stress is perceived negatively or becomes excessive, students tend to experience physical and psychological impairment (Murphy &Archer, 1996).

Radcliff and Lester (2003) advances this view by stating that high expectations, information overload, academic pressure, unrealistic ambitions, limited opportunities, and high competitiveness in the academic environment, are some of the common sources of stress that create tension, fear, and anxiety in students. Likewise a study by Dahlin, Joneborg, and Runeson (2005), revealed that undergraduate students in Sweden indicated experiencing the highest degree of pressure from studies. The study involved first, third and sixth year students. The main objective of the study was to assess the exposure to different stressors and the prevalence of depression among medical students at different levels of education, taking gender differences into account. The study found out that the

first year students gave high ratings to the workload and lack of feedback as stressors. Third year students gave high ratings to Worries about future endurance and competence as well as pedagogical shortcomings. For the sixth year students, both future competence and pedagogical factors were rated highly. The sixth year cohort also gave higher ratings than the first and third year groups to Non-supportive climate. In all 3 cohorts students complained of lack of feedback. Female students gave higher ratings than males to 4 out of 7 factors. Several stress factors were identified as being associated with depression. The prevalence of depressive symptoms among students was 12.9%, significantly higher than in the general population, and was 16.1% among female students versus 8.1% among males. A total of 2.7% of students had made suicide attempts, but none during the previous year. However not many students may not fall into depression and suicide as indicated in the percentages in this study. The majority of the students may turn to other options and this study proposes exam cheating as a possible option.

Misra, Mckean, West, and Russo (2000) sustains that view by pointing out that students found the requirement to meet assessment deadlines as a major source of stress. The study was conducted in a U.S mid-western University. The study involved students of different academic years. The study also examined academic stress by gender and the year of the study. Students reported experiencing academic stress with the greatest sources of academic stress coming from taking and studying for exams, grade competition, and the large amount of content to master in a small amount of time. The study found that students perceive course load to be high in their first year of study, and that the perception of course load positively correlated with exam stress. They explained that it is not only the examination that induces stress but the fact that the possibility of

failing or passing the exam can shape the course of one's academic career and professional life. Course load versus time available has also been cited as a stressful factor in the academic environment.

In their study, Talib and Zai-ur-Rehman (2012) found out that majority of the students (53%) in a Taiwan University claimed that course load is the source of their stress affecting their GPA. Besides, students reported that the prospect of having to sit for examinations is stressful because of the pressure to review all the learned material within a given period of time. This however does not include the possible actions that students can undertake when faced with such situations.

Besides the course load and exam preparation, there are course demands that may induce academic stress depending on the nature of the course that the student is undertaking (Mani & Snehaja 2016). Kuhn, Kranz, Koo, Cossio and Lund (2005) advanced that among the students of Texas Pan-American university the majority of the students viewed their stress as moderate. The research was conducted to explore factors that lead to academic related stress of medical students. The students reported that their stress was induced by academic demands of the program as well as their financial obligations. Most of the respondents of the study reported that they did not have expectations as the amount of work, preparation, changes in study habits and time constraints demanded from them by the program. Cited academic demands included variable hour shift for clinical rotations, sleep deprivation in addition to the curriculum overload as their source of stress (Kuhn, et al., 2005). In their findings psychology students reported that stress emanated from the supervisory process while in field and that the stress was specifically due to the individual differences between the trainee and the supervisor

According to the statistics published by an Indian National Crime Records Bureau, there is one student every hour that commits suicide. The bureau registered 1.8% students who committed suicide due to failing in examinations and an 80% rise in suicide rates during a one-year time frame. A 2012 Lancet report also quoted that the 15-29 age group bracket in India has the highest rate of suicide in the world and these numbers show no sign of dropping,(Reddy, Meno & Thattil, 2018). This indicates the extent to which academic stress can have a negative effect on students.

Academic stressors have been shown as a cause of concern in non-Kenyan universities as discussed in this section. In the same breadth academic stress is also a matter of concern to the Kenyan universities. This study will however focus on relationship between academic stress and the attitude toward exam cheating in which the reviewed literature have not probed. Academic dishonesty has been a challenge in Kenya at the university and at lower institutions of learning. This study treats the attitude towards exam cheating as a response to academic stress.

Perception of stress can affect performance. Bedewy and Gabriel (2015) relate that when stress is perceived negatively or becomes excessive; it can affect both health and academic performance and can have an adverse effect on students. Moreover, if the pressure is prolonged and perceived as unmanageable, these experiences have been shown to elicit helplessness, depression and stress thereby placing the academic future of some students in jeopardy (Marcos & Tillema, 2006)

Beilock, (2008) reveals that stressful academic situations reduce the working-memory available to attend to a task's information processing requirements and to control its

execution. Working-memory is a short-term memory system involved in the control, regulation, and active maintenance of a limited amount of information immediately relevant to the task at hand. The more working-memory capacity people have, the better their performance on academic tasks such as problem-solving and reasoning (Kai-Wen, 2009). In Botswana a study was carried out to investigate the stressors, symptoms and effects that were likely to be experienced by undergraduates in the University of Botswana. The study involved 320 students who responded to self administered questionnaires. It explored stressors related to time, academic pressure and academic environment. The findings revealed that academic workload, inadequate resources, low motivation, low performance and overcrowded lecture halls were the leading causes of stress, (Agolla and Ongori, 2009).

2.2.3 Non-academic stress

Stressful experiences for students do not only emanate from their academic realm but also from the non-academic sphere. Towbes and Cohen (1996) relate that non-academic stress factors experienced by university students in the exterior of the academic realm include family issues, financial problems, relationships with opposite sex and problems of accommodation. A study by Ross, Bradley and Herkert (1999) used a student stress survey to determine the major sources of stress among college students.

Non-academic stress can also be attributed to the physical, social and monetary factors. The physical environment includes the lecture and residential halls as well as laboratories. This may also include demographic factors seen from the point of view of the number of students versus the available space in a university. The physical environment is also concerned with the facilities for instance in most Kenyan universities

the residential halls are not adequate in some universities. Misigo(2015) confirms that in some of the public universities in western Kenya, students reported that some of the stressors included lack of accommodation, insecurity in residential areas, relational problems and problems with roommates. Due to congestions in the hostels some students have to reside outside the university. This may pose challenges related to commuting and insecurity. Environmental factors extend to other facilities such as library, access to internet and other technological needs of the students. Kuhn et. al (2005) highlighted the important characteristics of a supportive academic environment as one that provided support to students to succeed academically and socially. Such an environment enables the students to meet the non-academic demands and provides support that enhances the student's relationship with fellow students, faculty staff, and institutional administration. On the contrary the inability to create a conducive academic and social environment may also cause psychological distress to the students (Ang & Huan, 2006).

The social environment in a university refers to interpersonal and intrapersonal dynamics. How individuals relate to themselves and with others. It involves building relationships with professors, friends, co-workers, romantic partners, roommates, or nurturing existing relationships at home. University students find themselves involved with other people in every aspect of their lives. Positive, functional interpersonal relationships have been shown to enhance students' academic motivation, engagement, and achievement. Kenny, Dooley and Fitzgerald (2013) concur that there is a correlation between interpersonal relationship and emotional distress. The social environment may also have a different impact on gender as Ang and Huan, (2006) relate that the social expectations that male students are expected to be superior even in academic performance presented a stressful

environment for male students. This may depend on the social cultural context of the student, (Zeidner, 1994).

There are varied forms of stressors in the life of university students. Ang and Huan (2009) relate that different groups of people are known to have different stressors. In the same breadth, Ross, Niebling, and Heckert (1999) reported that for college students intrapersonal, interpersonal, environmental, and academic factors have the potential to cause stress. Yet-mee, Cai-Lian and Teck-Heana (2013) agree that the cause of stress among college students in Malaysia was not restricted to their studies alone but it could have been caused by health, financial, academic and romantic relationships. The study also found that stress among college students resulted from family and academic related problems and other factors such as societal activities, job demands or romantic relationships. Rafidah, Aziza, Chong, Noraini, Norzaid, , and Salwani (2009) theorized that university students might experience high stress due to academic commitments, financial pressures and lack of time management skills. The fore mentioned studies exposed the main sources of stress among university students in other parts of the world. However the sources of stress did not distinguish the types of stressors as was the case in this study. They also did not give any estimation on the levels of stress as was the case in this study.

Change of social circumstances can make the university students stressed. Among university students in Jordan, students face pressure when they exit high school to the university. They face the difficult challenge of leaving home, separating from their parents, and beginning the process of finding their own identity as adults and their place in the world. These can cause the students sadness and tension, (Thawabieh & Quaisy,

2012). Still within the same social context, new relationships with new friends and partners may bring stress to students. The transition from high school to the university brings an intense need to fit in and to be accepted by friends. This may be complicated by the fear of ridicule and rejection from new friends. The mentioned study studied the causes of stress among students transiting from high school to the university. The current study was not only interested on those joining the university but across the four years of study.

Distant from the social cultural expectations, some emotional experiences can exert pressure on students. Bang (2009) articulates that some other non-academic stressors are universally painful and emotive to most of the people such as the death of a loved one. However these major life event stressors are relatively rare but most of the stressors encountered by university students are those that occur on a daily basis, the daily hassles (Goldstein, & Kopin, 2007). Research has indicated that peoples' perception of themselves and the world in general is partly linked to their personality (Bang, 2009).

Misra and McKean (2000) conducted a study surveying 249 college students at a Midwestern university in the US. The study showed that anxiety, ineffective time management and a lack of satisfying activities outside of academia were strong predictors of academic stress. The study also showed that while female students managed their time more effectively than male students, they also experienced the highest levels of stress and anxiety. The Midwestern university study related academic stress to ineffective time management and lack of satisfying activities and in this study according to gender the same concern was demonstrated. However nonacademic stressors were treated as

predictors of academic stress but this study categorizes time management and other activities as non-academic stressors to be related to the attitude of exam cheating.

A study by Busari (2012) identified the difference in the perceptions of academic stress and reaction to stressors based on gender among first year university students in Nigeria. Student Academic Stress Scale (SASS) was the instrument used to collect data from 2,520 first year university students. The sample was chosen through systematic random sampling from Universities in the six geo-political zones of Nigeria. To determine gender differences among the respondents, independent samples t-test was used via SPSS version 15.0. The results of research showed that male and female respondents differed significantly in their perceptions of frustrations, financials, conflicts and self-expectations stressors but did not significantly differ in their perceptions of pressures and changes- related stressors.

2.3 Perception of stress among university students.

Perception of stress refers to how people appraise an event either as stressful or not. This plays an imperative role in whether the stressor triggers the fight or flight response. For example if a person's perception is influenced by a negative, pessimistic thinking style the potential event will be perceived as more of a threat than to another person exposed to the same potential stressful event but has a flexible, non-rigid, optimistic thinking style. Stress results from the interaction between stressors and the individual's perception and reaction to those stressors (Romano, 1992; Rafida et al., 2009)

Achor, Crum, and Salovey (2013) defined stress as nonspecific reaction of the body to any demand that is either positive or negative. In his definition of stress Lazarus

(1984) included the terms stimuli and response. The term stimuli points out to the causes of stress or the demands that are placed on the individual that cause them to feel stressed. Response refers to the actions taken by individuals towards the situations they find themselves in. When the demands held are positive, it is eustress and when they are negative it is distress (Beilock 2008). The terms eustress and distress were introduced by Selye to refer to adaptive and non-adaptive effects of response to stress depending on the view adopted by an individual

Lazarus (1984) in his stress model conceptualized eustress from a cognitive dimension. To him eustress is a positive cognitive response to stress associated with positive feelings and good physical health while distress is associated with negative feelings with physical impairments, (Le Fevre, Kolt and Matheny, 2006). The distinction of eustress and distress is based on the individual's perception as well as the characteristics of the stressor. Achor, Crum, and Salovey (2013) recounts that eustress is primarily based on perceptions. It depends on how a person perceives a given situation and task. It is not what is actually happening, but a person's perception of what is happening. Beilock (2008) adjoins that the body itself cannot physically discern between distress and eustress and differentiation between the two is dependent on one's perception of the stress. It is believed that the same stressor may cause both eustress and distress. For example when lecturers give assignments in attempt to stimulate learning some students perceive that as unnecessary source of stress. On the converse others perceive it as a booster to their final grades and work hard on them, (Achor, Crum, & Salovey 2013).

Perceived stress is not actual stress but is what individuals feel they are experiencing. Studies have shown that perceived stress and stressors are not necessarily consistent

across all college students since individuals appraise situations differently (Misigo, 2015). For example if a person's perception is influenced by a negative, pessimistic thinking style the potential event will be perceived as a threat in comparison with another person exposed to the same potential stressful event but has a flexible, non-rigid, optimistic thinking style (Glanz & Schwartz, 2008). In addition to that Le Fevre, Kolt and Matheny, (2006) state that an individual's perception is influenced by other factors such as beliefs, level of pessimism or optimism, locus of control and the degree of stress hardiness. What matters more in a stressful situation has to do with the way the individual interprets the event. For instance an extrovert may love to go to parties or meeting new people while an introvert may find it stressful (Glanz & Schwartz, 2008). Personality traits have an influence on the perception of stress.

Perception of stress may also be determined by other situational factors like the course being pursued by students. Research in Malaysian university by Talib and Zai-ur-Rehman (2012) showed that there was a significant difference in the perceived stress between engineering students and management science students. The study found that engineering students had a higher mean academic stress score than the management science students. Student's perception of every day, non-life threatening events, depends very much on their individual perception of those particular stressors. Moreover individual's perception of stress is also influenced by factors such as beliefs, level of pessimism or optimism, locus of control and the degree of stress hardiness (Padgett, & Glaser, 2003).

Perception of stress can also differ according to the level of study. Elias, Ping, and Abdullah (2011) conducted a study in Malaysia that investigated stress and academic achievement. The study had a sample of 376 undergraduate students obtained through

cluster sampling. The data was obtained through the use of college undergraduate stress scale (CUSS). The participants were compared using their year of study and the degree program they were pursuing. It found out that the undergraduate students had moderate level of stress. The first year students had low stress level while the final year students were the most vulnerable while the middle years had moderate levels. They also found that sitting for exams and class presentation were major sources of stress.

Alzhem, Molen and Boer (2013) carried out a study that purposed to find out whether the year of study had an effect on stress levels among dental students. Dental environmental stress (DES) questionnaire was used to collect data. Causes of stress were examinations and completing clinical requirements. They found that the third year students reported the highest level of stress. Their study differed with this study since the sample was drawn from students pursuing different courses. The study relates to this study since both were based on the levels of stress and the year of study.

Perception of stress determines the response that an individual awards the situation. McLeod, (2010) relates that individuals often perceive an event as being more of a threat than it really is. This is then coupled with the belief that people's ability to cope with it is less than it really is. Glanz and Schwartz, (2008) propose that 85% of the things humans worry about never happen. For example a person may be worried about an event, yet when the event happens it will not be as bad as it was thought it would be.

2.4 Levels of stress

People differ in the way they respond to stress causing events. Pau, Rowland and Naidoo, (2007) expressed that there are three levels of stress characterized by certain causes,

symptoms and responses. The first reaction to stress causing events is immediate stress also known as acute stress. Acute stress is a mechanism that brings the body into a state of alertness. It is controlled by the autonomous nervous system. The nervous system maintains a constant equilibrium also known as homeostasis. A change in this equilibrium results in different changes in the bodily functions e.g. activity of digestion system. Stress can be seen as a state of emergency that is preceded by arousal due to an external stimulus. After the factor causing stress or the stressor disappears, the body relaxes. Stress is a response to a stressor that causes fright or nervousness (Glanz & Schwartz, 2008). The body responds to it by releasing adrenaline in preparation for action. The symptoms to this type of stress include increased heartbeat, high blood pressure, indigestion, nervousness and sweaty palms.

The second level is continued stress which occurs when there is no relief from a stressor in level one. It is referred to as episodic acute stress. The symptoms include exhaustion and fatigue, anxiety, memory loss and increase in smoking or alcohol and caffeine consumption (Talib & Zia-ur-Rehman, 2012). At this level the body responds by releasing stored sugars and fats, using up its resources. The third level is chronic stress which results when a stressful situation is not resolved and carries on for prolonged periods. It is characterized by insomnia, errors in judgment, personality changes and mental illness. The response at this level is that the body cannot produce the energy resources it needs and the on-going strain can cause dysfunctions and breakdowns.

Towbes and Cohen (1996) evaluated stressors in relation to how many times a student had to deal with them on a weekly basis. The study was conducted in Northern Ontario University. They found that in regard to chronic stress, which is level three discussed

above, first-year students scored higher than other students. This may imply that levels of stress can be dependent on the year of study among university students. In this study the year of study was conceptualized as the moderating variable and the finding on its influence on the level of stress on university students was compared to the mentioned study.

Baste and Gadkari (2014) found that stress levels may escalate to significant proportions in some students, to present with symptoms of anxiety especially during tests and examination periods. Grandy and Ocanto (1993) suggested that a modest prevalence rate of 10 to 35 percent of college students in Nepal experience functionally impairing levels of test anxiety. However, not all students experience anxiety with the same severity. In the Social Survey of the German Student Union, it was estimated that approximately 15 to 20 percent of student's functioning become impaired by exam stress in a modest to high degree (Neuderth, Jabs & Schmidtke, 2009). It was also revealed that the delay and the drop-out in university students in India is significantly more often in students with test anxiety and is associated with psychiatric morbidity including suicidal behavior and high economic costs, (Saxena, Shrivatava & Singhi 2014). In another survey it was shown that 10 percent of dental students suffered from severe emotional exhaustion, 17 percent complained about a severe lack of accomplishment, and 28 percent reported severe depersonalization symptoms (Naidu, Adams, & Simeon 2002). The survey also revealed that academic factors were the predominant cause of stress in most students, followed by physical, social, and emotional. Majority of students with stress reported high scores of poor self-esteem, and about half scored high on depression scales (Baste & Gadkari, 2014). Reviewed findings above suggest that higher level of stress is associated with poor

academic performance, exam anxiety, college dropout emotional exhaustion and delay in completion of the course. This points out the different ways in which stress can affect students. This study predicted that stress can influence the attitude that students can have towards exam cheating.

The reviewed studies were carried out in countries outside the location of this research for example in the USA, India and Nepal. The findings of this study were not expected to be the same with the reviewed studies because of different settings and characteristics of the populations. The reviewed studies were relevant to this study because they highlighted on the categories of stress which was treated as the level of stress in this study. They have also hinted on academic challenges as the predominant determinant of stress level. This relates well with this study which was looking into the level of academic stress. However it differed because some have correlated academic stress level to exam anxiety. Another study was relevant to this study because it related the levels of stress to the year of study. The difference is that the sample was not drawn from education students as was the case in this study.

2.5 Stress levels and gender.

Misra, McKean, West, and Russo's (2000) research findings suggest that stress levels vary by gender of the students. Levels of academic related stress differed among male and female students with female students being more prone to more academic stress than their male counterparts (Abouserie, 1994; Bang, 2009; Misra & Mckean, 2000). Females experienced higher levels of academic stress because of negative appraisals of the stressful event and focus on the emotional challenges in the wake of the stressful event. Male students are trained to display strength and machismo in the face of challenges right

from their young age (Misra & ckean, 2000). However, female students performed better than the male students and had better GPAs than male students even in case of significant stress.

Perceived stress was reported in some research, to vary among different socio-demographic groups (Pau et al., 2007; Polychronopoulou and Divaris, 2005). For example, it was found that females, younger students, those without a previous higher education qualification and those not satisfied with their decision to study dentistry were significantly more likely to report perceived higher level of stress when compared to their counterparts (Morse &Dravo, 2007; Pau, Rowland & Naidoo, 2007). However, in other studies, men showed more stress than women. Men and women report different reactions to stress, both physically and mentally. Morse and Dravo, (2007) relate that men and women attempt to manage stress in very different ways and also perceive their ability to do so and the things that stand in their way in markedly dissimilar ways. For example in America a survey by Piercall and Keim (2007) found that women are more likely than men to report having a great deal of stress and almost half of all women surveyed said their stress has increased over the past five years, compared to four in 10 men.

Inability by students to manage their time accordingly also contributes to academic stress. Saxena, Shrivastava and Singhi (2014) examined the differences in time management and less academic stress and anxiety by gender and age. The study hypothesized that females and older students would have effective time management behaviours and consequently less academic stress and anxiety. It also hypothesised that the greater satisfaction with leisure that students indicate, the lower their perceived academic stress will be. It was found that a person engaging more frequently in time management behaviours reported

fewer physical and psychological symptoms of stress. It also found that women and older students reported better time management skills than college men and younger students.

In a study involving students of a medical college in Karnataka, India it was found that the most common sources of stress among medical students were related to academic stress and professional identity. The aim of the study was to estimate the prevalence of stress, examine gender differences in stress experiencing and coping. The sample of the study included 94 third year medical students. The study finding was that all the respondents reported stress and majority experienced stress at moderate levels. Academic performance and professional identity issues were of greatest concern. It also found that female students had more academic performance stress (Grandy&Ocanto1993).

Anchor, Crum and Salovey(2013) in a USA study found that females perceived more stress in the interpersonal domain and scored more significantly than males. Those domains included high parental expectations, frequency of examinations, vastness of the academic curriculum, sleeping difficulties, worrying about the future, and about becoming a doctor. For male-female comparisons, significant differences were found for 17 questionnaire items, all perceived as more stressful by females; and between classes, significant differences were accounted for by three questionnaire items. Comparisons with previous dental students on the identical questionnaire were noted. A study found that, stress among dental and medical students in different cultures is well documented and was associated with significant psychiatric morbidity in the literature (Al-Omari, 2005; & Rajab, 2001). The study demonstrated that more than half of the respondents were affected by depression, and over two-thirds by anxiety and stress, and females

consistently reported higher score of stress as compared to their male counterparts (Al-Omari, 2005).

Karaman, Lerma, Vela, and Watson (2019) conducted a study in the southern region of USA that examined predictors of academic stress among college students. The sample consisted of 307 undergraduate students with 179 male and 128 female students. Students Stress Inventory-Revised (SSI-R) was used to measure academic stress. It had 53 items and the rating was done on a five point likert scale. The study indicated that the female college students had higher academic stress level than the male. Gender was important in their study because the female college students had higher physiological stress compared with their male counterparts. Additionally, Mazumdar, Gogoi, Buragohain and Haloi(2012) in an Indian study also found that various symptoms that caused stress were more in females than males. The symptoms included anxiety, back pain, neck pain, increased or decreased appetite and skin rashes. Up to 60% of the female in the study were prone to the given symptoms. Some of the variables in their studies correspond with those of this study for instance the academic stress and gender. Their study also used the same rating on items of the questionnaire even though the stating of items was different. However it differed with the current study in other variable and the study population.

The literature reviewed on stress levels based on gender indicates that there is a difference in the stress levels between males and females. Even though that similarity existed it is also worth noting that those studies did not use the same stress scale with the current study. For example SSI-R had 53 items and did not differentiate between academic and non-academic stress levels. The Indian study looked at the physiological symptoms of stress which was not in the interest of this study. Most of the reviewed

studies were also drawn from outside Kenya where little has been done on the relationship between stress and gender among university students. The sample sizes and characteristics of the preceding studies were different from that of current study. In the previous studies the samples were mainly drawn from students in the medical related fields. The sample for this study was drawn from the bachelor of education students never the less the findings undisputedly reveal that female undergraduate students express higher levels of stress.

The year of study also affects the level of stress as those in earlier and later years of study seem to vary on their stress scales. Carmo, Ferreira, Affonso¹, Pereira, Belintani and Filho (2016) found that in Brazil there was increase in dimension of emotional exhaustion in the final year students of psychology. The study attributed the higher stress to accumulation of tasks, placements and reports, elaboration of course, expectations for the latest reviews and approvals in the disciplines, participation in meetings and preparations for graduation. These situations should be aligned with their work activities, given that the majority (61.3%) in group investigated combines study with work. During that period, students face anxieties relating to the labor market, the student may be questioned about his preparation to join the same.

2.6 Effects of high stress level

Stress is part of normal living and is experienced at every stage of human life notwithstanding the university life. Stress is the physical and mental response of the body to demands made upon it. Though some level of stress is not harmful, high academic demands coupled with poor coping strategies can have negative repercussions on students. Stress can affect physical, mental or psychological wellbeing of individuals.

Carlson (2016) adds that stress worsens grades. In his view it happens that when a student is stressed and preoccupied, it takes over their ability to focus during lectures or studying. Stress may even cause students to drop out of school or drop classes. He reiterated that more than 25 percent of American students connected stress to lower grades or ability to finish a course. At the same time he also indicated that students experiencing stress did not find schoolwork to be a top priority.

Academic-related stress can increase substance use among young people. Pascoe, Hetrick and Parker (2019) conducted a survey of 128 Grade 11 students attending competitive private schools in the United States. The survey found out that the students who reported experiencing high ongoing stress, particularly in relation to academic achievement and the tertiary education admissions process, also reported high rates of drug and alcohol use. The authors report that substance use was associated with a greater desire for academic achievement, higher perceived stress, less effective coping strategies, and less closeness with parents. As many as 63% of students in the bottom quarter of science performance also reported feeling anxious about tests no matter how well prepared they were, while 46% of students in the top quarter report feeling anxious. The academic-related stress experienced by secondary and tertiary students impacts their mental and physical health and leads to a range of academic problems.

It has also been indicated that academic stress has a relationship with attitude. Wang, Tsai, Chu, Lei, Chio, Lee (2015) performed a study to investigate learning pressure, learning attitudes and achievement in Macau undergraduates. Their study comprised 135 Chinese volunteers from two public universities and one private university in Macau. Out of 135 volunteers, 55 were male and 80 female, and 39 were first-year, 33 second-year,

34 third-year and 29 fourth-year undergraduates. They reported that learning pressure had a significant, moderate, and positive correlation with learning attitudes and had a negative correlation with academic achievement. Their study brings to view the idea of a link between academic pressure and attitude.

A study by Putwain (2009) in which thirty-four students were interviewed from six secondary schools in the North of England, were identified as being likely to experience examinations as anxiety-provoking events and analysed using the principles of grounded theory. Twelve themes were structured around a central narrative of 'stress, achievement and esteem', which highlighted three key findings. First, stress was linked to the motivation to achieve and the fear of failure through esteem judgments and conditions of acceptance from important others. Second, the experience of stress was linked to a wider educational context including practices and policies pursued by teachers and schools. Third, a more specific state, examination anxiety, was associated with facilitating effects prior to examinations and debilitating effects during examinations.

The reviewed studies above indicate that there is a link between academic stress and lower grades, substance abuse, mental and physical well being, motivation, learning attitudes and exam anxiety. These studies do not link academic pressure directly to exam cheating attitude but at the same these issues are closely related the attitude of students towards exam cheating. The studies were also conducted outside Kenya and have used different methods from the current study.

2.7 Examinations

Examination refers to an official test that measures a student's knowledge or ability in a particular subject. Exam is the word most commonly used as the short form. Examination also means the process of assessing the progress of students thus helping them to know their strengths and weakness, (Akaranga and Ongong, 2013). According to Kenyatta University, examination is meant to test high levels of cognition such as analysis, synthesis and evaluation and should be used to ensure fairness and objectivity on the outcome of the process. This implies that Evaluation should therefore be carefully designed and undertaken in a manner that it is fair to all. On the contrary pedagogies used in most universities in Kenya lead students to memorize and listen passively to lectures, (Akaranga and Ongong, 2013). Anderman and Murdock (2007) suggest that the ideal would be to lead students to design the direction of the course.

Typically, Kenyan universities have examination boards whose role is to manage and coordinate University College examinations, to process and issue academic transcripts and certificates, to coordinate and supervise examination processing by examining units, to process and generate graduates' list and to act as the custodian of all college academic boards and senate approved students' examination results. In Technical University of Kenya for example, the board has outlined examination regulations which students are expected to familiarize themselves with. The university has two basic types of examinations; the ordinary examination which takes place at the end of the semester and continuous assessment test (CAT). End of semester examination is written while continuous assessment test can take the form of practical, project, essay or a formal test

(Technical University of Kenya, 2014). In most cases the CAT is open to abuse by students.

There are different types of examinations university students can be exposed at university. These include computational, oral, essay, and multiple choice questions (Ward & Murray-Ward, 1999). This means that students at the university level are required to respond to questions effectively and in a more structured manner. This therefore places more demand on the student to be thorough in their preparation for exams. When the students fail to prepare adequately for exams they end up being stressed and may turn to cheating in an exam.

Examinations serve many purposes and key among these purposes is to award credit to students. Though every university has its own method on how and what to credit, all must award credit for every exam undertaken by students. Exam is also used to serve as a determinant for movement into the university and the subsequent levels. In addition tests are used to determine recognition and awards for deserving students as well as testing knowledge gains and gaps. Examination places high demands on students. It may trigger performance anxiety in some students or can motivate students to do well, (Kelly, 2017). Sometimes students are unable to meet the demands of examination requirements. They may therefore get stressed out while at the same time the desire to achieve examination requirements may become a source of motivation to perform. Students may not adequately prepare for exams because of the failure to invest their time in using better learning strategies. Anderman, Griesinger, and Westinger (1998) underscore that the schools' obsession with performance measures spurs cheating. It is suggested that classrooms that emphasize high grades and test scores may drive the students to cheat.

McCabe and Trevino (1996) point out that pressure for good grades in higher education, student stress, ineffective deterrents, teacher attitudes, and an increasing lack of academic integrity are important determinants of cheating.

Academic dishonesty is a historical phenomenon and is a challenge across many academic institutions. According to Shon (2006) examination malpractice is a global problem affecting majority of undergraduate students. She recognized that academic dishonesty is as old as school itself and that many of today's students do not think that behaviors such as plagiarism and collaborating on tests even qualify as cheating at all. She reports two incidences of cheating where in the first incident of an Air Force Academy, 78 cadets were suspected of cheating on an online calculus test by using an unauthorized online math program during the exam. The second report is on Harvard College where more than 100 students in 2012 government lecture class were being investigated for allegedly plagiarizing answers and collaborating inappropriately on the final take-home exam.

Owing to the above discussion university students may be stressed by the high level testing of university examination. If they are not well prepared they may come up with other means of measuring up with the challenge. One of the main purposes of examination is awarding credits which are used as a measure in awarding jobs. The credits are also a major determinant of mobility from year of study. Since no one wants to stagnate, students often turn to easier ways of surviving in the university. Those who are not adequately prepared for exams may choose to engage in irrelevant exam practices. On the same breadth some also try to avoid conflicts with their parents by getting better

grades. The demanding nature of examination in university is enough to make students stressed and develop negative exam practices.

2.8 Examination Cheating

Psychological research has also shown that dishonest behaviors such as cheating actually alter a person's sense of right and wrong, so after cheating once, some students stop viewing the behavior as immoral. A study published by Shu (2012) conducted a series of experiments, which involved a sample of 138 undergraduates of a southeastern state of America. The subjects were to read an honor code reminding them that cheating is wrong and then providing them with a series of math problems and an envelope of cash. This was meant to reinforce in their minds the idea that cheating is wrong. The more math problems they were able to answer correctly, the more cash they were allowed to take. In one condition, participants reported their own scores, which gave them an opportunity to cheat by misreporting. In the other condition, participants' scores were tallied by a proctor in the room. As might be expected, several students in the first condition inflated their scores to receive more money. These students also reported a greater degree of cheating acceptance after participating in the study than they had prior to the experiment. It was also found that, while those who read the honor code were less likely to cheat, the honor code did not eliminate all of the cheating. This study reveals how much dishonest habit can be understood and tackled from the psychological point of view.

Exam cheating has been in existence for quite some time and the trend never seems to go down instead it has evolved with time. O'brien (2019) on Irish Times reported that academic cheating poses a threat to academic integrity of higher education. The paper reported that there has been a sharp rise in written-to-order essays and dissertations. It

was further reported that one in seven graduates admitted paying someone to undertake an assignment for them. The paper also reported that such cases have been on the increase since 2010. In response to these cases Quality and Qualifications Ireland (QQI) has established a new National integrity network to help agree on common ways to identify and prosecute academic cheating. It also recommended that many schools should teach about intellectual property and rights or plagiarism.

Akinyi (2017) reported that at Moi University in Kenya, time for exams brings fear to students and this makes them to engage in various exam cheating methods in order to cope. She pointed that when it is time for Continuous Assessment Test (CAT) some of the students arm themselves with micro pieces of paper containing course content that is likely to be examined. The notes are popularly known as “mwakenya”. The notes are concealed under the chair or the desk or in any other parts. Some other students also position themselves in strategic positions where they cannot easily be reached by the invigilator. When they are given take-away CATs some give exact duplicate copies of their friends’ work. They also use cut and paste without rightfully acknowledging the source of information. She further examined that the major causes of cheating included inability of the student to attend class, lack of lecture notes and failure of the students to study as required. While Akinyi’s report focused on the methods of exam cheating, this study considered stress as a motivation for cheating during exams. Starovoytova and Sitati (2016) corroborate that in a survey of over a thousand undergraduates, 80% of the high achieving respondents in 23 institutions admitted to having cheated in an examination. In the same survey 82% of those in engineering courses, reported that they

cheated, at least once in college, and in just a previous-term most of the engineering students had cheated more-than-once on exams.

In a study by Ahmed (2018), carried out at Umma University, Garissa Kenya, it was found that one of the contributing factors towards cheating in Kenya was the use of smart phones, inability by some lecturers to complete course content, limited resources at the university and inability of the students to be keen on their studies. The sample included certificate, diploma and undergraduate students. A higher percentage denied having involved in cheating while a smaller percentage admitted to have cheated in exams. Though Ahmed's study involved population of Kenyan students it differed with the current study since it included those from diploma and certificate level. Nonetheless it has served as evidence of existence of cheating in examinations among post secondary level. This study was interested in finding out the underlying practice towards cheating.

The studies reviewed above highlight the methods used by students to cheat in examinations, construct that this study did not focus on. However, they serve as evidence to the fact that exam cheating takes place among undergraduates across different universities locally and internationally.

The studies reviewed above evaluated different factors of cheating and this confirms that examination cheating is a common phenomenon in universities but locally and in other parts of the world. Two of studies were conducted at Moi University but though it was one of the participating universities the studies did not involve same sample. This study involved bachelor of education students as was the case in the ones reviewed. The other Kenyan study was conducted at UMMA University which is in a different location with

the current study. None of the studies considered the attitude towards exam cheating. However they adequately confirmed the existence of examination cheating. This study was therefore build on the information provided by these studies.

2.9 Determinants of examination cheating

There can be many factors that can shape the attitude towards exam cheating. Finn and Frone (2004) recount that influencers of cheating include peer persuasion, contextual variables, competition, pedagogies used by lecturers, self efficacy for complex tasks and the types of attributions developed by students among others. In the context of higher education, that goal is a college degree seen by many students to be a pre-requisite for upward mobility. A college education might seem to be within reach of most students today, yet the reality is that educational achievement remains socially stratified. Academic dishonesty has little sociological relevance if students conform to culturally prescribed aspirations and means toward attainment of their educational goals. However, when students assimilate the cultural emphasis on success without equally internalizing the morally prescribed norms governing means for its attainment, then the illegitimate methods employed to achieve the desired state becomes a pivotal focus of rule-breaking behavior, (Anderman & Murdock, 2007).

Academic cheating also occurs at all levels of study and across different ages. Anderman and Murdock (2007) document that in USA statistics show cheating among high school students has gone up dramatically during the past 50 years. In the past it was the struggling student who was more likely to cheat just to get by. In recent times it is also the above-average college bound students who are cheating. Out of 73% of all test takers, including prospective graduate students and teachers agree that most students do cheat at

some point. It was also found that 86% of high school students agreed on the same. Cheating no longer carries the stigma that it used to. Less social disapproval coupled with increased competition for admission into universities and graduate schools has made students more willing to do whatever it takes to get the A grades.

Different demographic factors also contribute towards cheating. The profile of college students more likely to cheat included the course, the age, the year of study, the type of university and gender. According to Dawkins (2004) students in both small and large sized universities cheat. According to Finn and Frone (2004) found that UK college students reported an inverse relationship between internet plagiarism and year of study. The researchers speculated that third year college students had invested more in their education and therefore had more to lose than first year students. The former engaged more in internet plagiarism. Cheating is seen by many students as a means to a profitable end. Cheating does not end at graduation but goes on beyond that. Resume fraud is a serious issue for employers concerned about the level of integrity of new employees.

Apart from assessment tools other reasons such as the fear of failure, pressure to get good grades, assessment criteria being perceived as unfair and the lack of deterrent sanctions against cheating. The latter makes cheating easier and less labor-intensive (Dawkins, 2004). Students perceive exams as having a significant influence on their future and therefore this is among the contributory factors that lead students to cheat.

Examination cheating is also influenced by the attitude held by students. A study by Bahadır and Cenk (2017) carried out a study to determine the attitudes of students from the Hasan Doğan School of Physical Education and Sports towards cheating in exams and to

investigate changes in these attitudes in terms of several variables. The survey involved Karabük University Hasan Doğan High School of Physical Education and Sports. The Study Group consisted a total, of 337 students selected, using random sampling method. There were 178 student teachers from the Physical Education and Sports Department and 159 students from the Sports Management Department. The Attitude Scale on Cheating in Exams (ASCE) was used to collect the data. The scale consisted of one dimension and 67 items, 37 of which were positive and 30 of which were negative statements. One-Way Variance Analysis (ANOVA) was used to analysis the data. By the end of the study, it was established that the students from the Physical Education and Sports High School had positive attitudes and that attitudes on cheating in exams did not differ according to gender, department, type of high school attended, and GPA points; however, it was also determined that the students' attitudes towards cheating in exams differed according to year level. Competition is also a predictor of the attitude toward cheating in examinations. Anderman and Midgley (2004) found a significant relationship between a competitive educational setting and the extent of cheating among university students in the USA.

Attitude and the level of education also cause of exam cheating. A study by Anderman (1999) which involved 285 middle school students in the USA sought determine the relationship between attitude and actual academic cheating. It found that among students who stated that cheating was unacceptable, 21.3 percent reported having cheated in the past. Among those who indicated that cheating was unacceptable, 42.7 percent reported to have cheated. The same links were also found among high school and college students.

Exam dishonesty is a common phenomenon among university students in Kenyan universities. A study by Starovoytova and Milton (2017) revealed that in the school of engineering at Moi University in Kenya 18% of the respondents admitted that they had never cheated but had witnessed an arrangement of cheating techniques used by their classmates. This illustrates that students are exceedingly inventive and opportunistic in nature and they are ready to use any method to achieve their ultimate goals. The study also confirmed 22% of those who never cheated confessed that they were afraid of being caught by the invigilators while only 6% stated that they were afraid of being reported by my fellow classmates. The study still reported that the absence of 'risk' (fear of penalties) implied that Students of school of engineering students do not bother much about getting caught cheating. The study highlighted above is closely relevant with the current study since the sample was drawn from the same area with the present study. However there was dissimilarity in terms of the schools in which the samples were drawn from.

The above discussion has dispatched the determinants of academic cheating. These have included frustration, aspirations, moral factors, the level of education, gender and attitude. The literature reviewed in the foregone discussion indicates a relationship between these factors and academic cheating behaviour. These reviewed variables also correspond with those of this present study. However there is also dissimilarity in terms of the time it was conducted and in terms of the areas where the studies were conducted.

2.10 Exam Cheating Attitude

Wood (2000) defines an attitude as a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor. Main (2004) points out that the attitude of a person is determined by psychological ideas, values, beliefs, and

perception while Eagly, and Chaiken, (1998), regard attitudes as evaluations of ideas, events, objects, or people.

Individuals present either negative or positive attitude to serve certain purposes. Lapinski and Boster (2001) relay that attitudes are generally positive or negative, though they can also be uncertain at times. For example, there is an experience of mixed feelings about a particular issue or person. Jung's definition of attitude is a readiness of the psyche to act or react in a certain way (Main 2004). Attitudes very often come in pairs, one conscious and the other unconscious or explicit and implicit. Implicit attitudes however, are most likely to affect behaviour when the demands are steep and an individual feels stressed or distracted. Jung viewed attitude as having dichotomies which incorporate conscious or unconscious, extraversion versus introversion, rational versus irrational and individual or social attitudes, (Main 2004, Olson & Zanna (1993).

Teachers and students harbor a certain level of attitude toward exam cheating. In a study in India that consisted of 1,261 undergraduate students and 131 teachers from six randomly chosen dental colleges in Tamil Nadu State, the attitudes of students and teachers on the cheating behaviors were analyzed. A closed-ended questionnaire was used for respondents to rate the seriousness of cheating behaviors. The students were asked to justify their cheating behavior, and the teachers were asked to assign punishments for the cheating behaviors. The attitudes of the teachers and students were statistically different in two cheating behaviors; copying during exams and helping other students copy in exams. The two main justifying reasons students gave for cheating behavior were to pass the exam (59.3 percent) and to obtain a better grade (31.3 percent). Further analysis was done using Pearson chi-square. Warning and counseling to help the

students reassess their moral values were preferred to penalizing punishments by the teachers, (Asokan, John, Janani, Jessy, Kavya& Sharma, 2013).

Attitude and perceptions towards exam have been proven to be predictors of tendencies to dishonesty in examinations. In a Nigerian study that involved a sample of 425 undergraduates comprising 250 from Delta state university Abraka, 100 students from college of education Agbor, and 75 students from College of Education Warri, it was found that a larger proportion of college students agreed that they cheated at some point. The major instrument, used for data collection was modeled from the one used by Chapman and Lupton (2004), a questionnaire called Science Students Cheating Tendencies Questionnaire (SSCTQ). The questionnaire was a self-reporting type used in the collection of responses from science students on attitudes, perceptions and tendencies towards academic cheating. The instrument consisted of 29 items (questions) developed on a series of dichotomous (yes/no) and scalar questions, as well as a question that asked students to assess what proportion of their peers they believe cheat. In addition, students were asked to respond to a series of statements using four-point scales anchored with strongly agree to strongly disagree. While 47% of university students reported that they cheated at some point during secondary school, as high as 53% of college students agreed to having cheated(Ajaja, 2012).This study closely relates to the current study in regard to the scaling of the instrument used. The responses were based on strongly agree to strongly disagree basis and had items requiring YES or NO responses similar to the current study. However there are difference in terms of situational variables, time and composition of the samples used.

A relationship has also been found to exist between the attitude towards exam cheating and the year of study. A study by Hardigan (2004) investigated the attitudes towards cheating of first-and third year pharmacy students and to relate this information back to the descriptive characteristics of student respondents. The sample consisted of eight hundred forty-four pharmacy students on Nova Southeastern University. They responded to a questionnaire on attitudes toward cheating scale. Ordered logistic regression was used to analyze the data and descriptive statistics were employed to summarize the information. Results showed that there was statistically significant probability of a female student holding a conservative or moderately conservative attitude toward cheating was at 56%. There was also a higher probability of an older student possessing a conservative or moderately conservative attitude toward cheating with 58%. There was also probability of a student with a high GPA to hold a conservative or moderately conservative attitude toward cheating. The study concluded that Pharmacy students were guided by intrinsic motivations to possess more conservative attitudes toward cheating than students driven by extrinsic motivations. Additionally, successful students may be less likely to cheat.

Attitudes serve certain functions to individuals which were categorised into four by Katz (1960). These include utilitarian function which provides persons with general approach or avoidance tendencies. Secondly is the function of knowledge which helps people to organize and interpret new information. The third is Ego-defensive functions which can help people protect their self-esteem and lastly is the value-expressive function that assists people to express central values or beliefs (Lapinski & Boster, 2001). Olson and Zanna (1993) state that since attitude is a hypothetical construct that cannot be directly

observed, it is measured using scales. Explicit measures tend to rely on self-reports or easily observed behaviors. Explicit measures can also be used by measuring the straightforward attribution of characteristics to nominate groups. Likert scales and other self-reports are commonly used in examining attitude.

The Cognitive-Affective-Behavioural (CAB) model explains that attitudes are evaluations of an object that have cognitive, affective, and behavioural components. These components are also known as taxi CAB, meaning that it will get individuals to where they want to go. The cognitive components of attitude refer to the beliefs, thoughts, and attributes that a person would associate with an attitude object, (Corey, 1937). Many times a person's attitude might be based on the negative and positive attributes they associate with an attitude object. The affective components of attitude refer to a person's feelings or emotions linked to an attitude object. Affective responses influence attitudes in a number of ways. For example, many people are afraid or scared of spiders. So this negative affective response is likely to cause one to have a negative attitude towards spiders. The behavioural component of attitudes refers to the way one behaves when exposed to an attitude object. This is the idea that people might infer their attitudes from their previous actions. In this study the previous action could include performance in earlier years of study. If for example a student had unsatisfactorily performed in a previous year or semester, they may develop an attitude towards exam cheating in order to maximize on their performance and to remove the fear of failure.

The CAB model hypothesizes a relationship between attitude and behaviour. On the contrary like LaPiere (1934) and Kutner, Wilkins, and Yarrow, (1952) suggested that there was no correspondence between behaviour and attitude. Another classic study by

Corey (1937) examined the relationship between students' attitudes toward cheating and their actual cheating behavior at the University of Toronto. The students took a series of true or false examinations, where they scored themselves at a later class meeting. The students did not know, however, that the instructor had scored the exams during the interim period. Thus the difference between the scores that students assigned to themselves and the scores that the instructor assigned served as the measure of students' cheating behavior. The correlation between the students' attitudes toward cheating and actual cheating was essentially zero. Attitudes toward cheating did not in the least bit predict the actual cheating behavior. Instead, cheating was related to test performance; the more poorly students had done on the exam, the more likely students were to cheat in scoring the exam.

McLeod (2014) relays that even though attitude does not correspond to behavior it cannot be denied that it does predict behavior. Goodmonson and Glaudin, (1991) reported a study on organ transplants, where participants initially indicated their attitudes toward organ transplantation. In that study the experimenters made a series of successively more difficult and more committing requests of the respondents. These included requests for an interview appointment on organ transplants and signing a legal document for providing posthumous organ donation. The number of behavioral steps that the participants took toward this final goal served as the index of behavior. The correlation between attitudes and behavior was 0.58. The study indicated that there was a correlation between behavior and attitude though not very strong. However quite a good period of time has elapsed since the study was done but it does give foundational information to other studies that were conducted later as is the interest of this study. This is a contrast to the earlier

mentioned study that found no relationship between behavior and attitude. The implication to this study that the attitude toward exam cheating may serve as a predictor to university student's cheating behavior in exam.

In the attempt to ascertain the relationship between behavior and attitude Ajzen and Fishbein (1977) suggest the importance of measuring attitudes and behavior at equivalent levels of specificity. A specific behavior is best predicted by an attitudinal question that is equivalently specific to the action in question, the target of the action, the context in which the action is performed, and the time of the action. In contrast, a general pattern of behavior is best predicted by a general attitude measure.

In their review of the literature, Ajzen and Fishbein (1977) noted that studies that employed attitude and behavior measures that were equally specific, typically found higher attitude-behavior correlations than did studies in which one of the two measures was more specific than the other. Thus, the degree of match between the attitude and the behavior was shown to affect the strength of the attitude-behavior relation.

In addition, some kinds of people typically display greater attitude-behavior consistency than do others. In general, two classes of individuals have been considered: those who are aware of and guided by their internal feelings and those who tend to rely heavily on cues in the situation to decide how to behave. In general, people who are aware of their feelings display greater attitude-behavior consistency than do people who rely on situational cues (Kutner, Wilkins, & Yarrow, 1952)

A number of situational variables also affect the strength of the attitude-behavior relation. These include normative factors and time pressure to reach a decision. Norms

can constrain an individual's behavior to the point where it is unlikely that the person will display behavior consistent with his or her attitudes. Indeed, a norm may be so strong and so universally held that virtually everyone in that situation behaves the same regardless of his or her attitude (Ajzen & Fishbein, 1977). Concerning the exam cheating behavior this suggests that if universal measures can be applied when administering exams, cheating behavior can help in shaping the attitude of students towards examination cheating.

One of the underlying assumptions about the link between attitudes and behavior is that of consistency. This means that people often or usually expect the behavior of a person to be consistent with the attitudes that they hold. This is called the principle of consistency. This principle reflects the idea that people are rational and attempt to behave rationally at all times and that a person's behavior should be consistent with their attitudes. Whilst this principle may be a sound one, it is clear that people do not always follow it. Eagly and Chaiken (1993) suggest that the strength with which an attitude is held is often a good predictor of behavior. The stronger the attitude the more likely it should affect behavior.

Hogg and Vaughan (2005) relate that the attitude-behavior strength involves the importance or personal relevance of the attitude to the individual. This refers to how significant the attitude is for the person and how it relates to his or her self-interest, social identification and value. If an attitude has a high self-interest for a person it is going to be extremely important for instance when the attitude is held by a group the person is a member of or would like to be a member of, and is related to a person's values. As a consequence, the attitude will have a very strong influence upon a person's behavior. By contrast, an attitude will not be important to a person if it does not relate in any way to their life, (Eagly and Chaiken, 1993). In the case of students attitude this study predicts

that university students' attitude towards exam cheating may be positive since they perceive that by cheating they will get good grades that will land them in good jobs. Cheating in exams could also be a way of counteracting academic stress.

The strength of an attitude also involves the knowledge. This covers how much a person knows about the attitude object. People are generally more knowledgeable about topics that interest them and are likely to hold strong positive or negative attitudes as a consequence. Attitudes based on direct experience are also more strongly held and influence behavior more than attitudes formed indirectly for example, through hear-say, reading or watching television (McLeod, 2014). Attitude formation is a result of learning, modeling others, and direct experiences with people and situations. Attitudes influence decision making, guide behavior, and impact what is selectively remembered.

Studies have also shown that faculty significantly underestimates their students' rates of cheating. Wajda-Johnston, Handal, Brawer, and Fabricatore, (2001) reported that while students in Jordan claim that 10-20% of them commit acts of academic dishonesty, faculty members perceive these rates to be much lower, around 0-10%. The research also indicates a significant difference between student and faculty severity ratings of academically dishonest behaviors such as studying old versions of exams or the instructor manual and collaborating on work that was intended to be individual projects. This study has important information on the attitude of cheating in exams held by students and faculty members. However it does not give reason as to why students' rating of exam cheating is high.

Khan and Khan (2011) observe that there are various methods of cheating used by university students. These may range from bringing and using notes during a closed book examination. These are crib notes written on small pieces of paper and are kept very secretly. Another method involves copying another test taker's answers. This is executed by making prior arrangements to sit strategically to allow them to copy from one another. This may extend to exchange of answer booklets in exam hall. They arrange in advance to revise selected topics and will exchange the questions for the selected areas (Ibia, 2006). Leakages are also common in most university campuses. This involves prior arrangement with officials charged with the keeping of exams who sell the actual examination papers to students at a fee. Impersonation is also used as a method of exam malpractice this occurs mainly in classes where the exam supervisor may not be in a position to physically identify all students during an examination schedule.

The methods used in cheating in exams are relevant to the relationship between attitude and behavior conceptualised by the study. It is expected that those who have a positive attitude towards cheating may report use of any of the methods for cheating in exams or may prefer the use of any of the methods in future.

2.11 Summary

This chapter has reviewed literature on conceptualization of stress, the causes and levels of stress among university students. Causes of stress have been identified as academic and non-academic stressors. The literature reviewed has shown that undergraduates experience high levels of academic and non-academic stress. Characteristics such as gender, age and the year of study influence the levels of stress. These variables and the finding of these studies tally with the present research. However the gap left by these

studies is that there was no separation in observation of academic and non-academic stress. Most of the studies reviewed were not done in Kenya and this current study filled that gap

Conceptualization of the dependent variable was made reviewing literature on examination, determinants of cheating and the attitude towards exam cheating. The reviewed studies focused on the prevalence of exam cheating and the methods in cheating. Those which focused on the causes hardly captured stress as one of the causes. The present study filled that gap by attributing stress to the attitude of exam cheating.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the descriptions and justification of the research methods that was used in this study. It focuses on discussions about the research paradigm, research design, location of the study, population of the study, sample and sampling procedures, instruments, reliability and validity of the instruments, scoring the instruments and data analysis methods.

3.2 Research paradigm

The philosophical paradigm adopted by this study was positivist which mainly relies on quantifiable observations that consequently lead to statistical analysis. Positivists believe that the researcher has minimal interaction with the respondents. Creswell (2003) reiterates that positivist approach believes in the existence of single reality, which can be measured. This paradigm was considered since it allowed the research to be objective and not subjective. It also allowed the use of questionnaires to collect data thus minimizing the interaction between the researcher and the participants therefore reducing subjectivity. It relies on reliable and valid tools to observe and know reality which in the case of this study was the questionnaire. It also allowed the researcher to formulate and test hypotheses. It also allowed the use of quantitative methods to collect and analyse data.

3.2 Research design

This study adopted a correlation research design. This design was considered appropriate since the study had two quantitative variables from the same group of respondents; academic stress levels and exam cheating attitude. Correlation design therefore allowed the research to determine the relationships between the levels of stress and exam cheating attitude among university students in Kenya. The levels of stress as well as the attitude towards exam cheating were quantified using five-point likert scales. The research design adopted in this study was considered appropriate since it allowed the study to find out how the stress levels relate with attitude towards exam cheating. This study fits into a correlation design since it had two variables. Level of stress was the independent variable while the attitude towards exam cheating was the dependent variable. The design allowed the researcher to determine the strength of the relationship between the academic stress levels and exam cheating attitude among university students. Simon and Goes (2013) allude that correlation research design is ideal for social research where it is not possible to manipulate the characteristics of the participants.

Theories adopted in this study were Cognitive Appraisal by Richard Lazarus (1984) and the Attribution Theory by Fritz Heider (1958). Philips and Burbules, (2000) hint that in order to understand the world better there are laws and theories that explain why things are the way they are. Collection of data was based on the objectives of the research. The data obtained was used to answer the research questions and to test the hypotheses. Descriptive statistics was used to answer the research questions. Inferential statistics was used to determine the relationships stated in the hypotheses. The research questions and

hypotheses were therefore to establish whether there was a correlation between the research variables.

3.4 Location of the study

This study involved both public and private chartered universities in western part of Kenya. According to Geology.com (2008), the country borders the Indian Ocean and Somali to the east, southern Ethiopia and South Sudan to the North, Uganda to the West and Tanzania to the South. There are 31 Public universities, 5 public university constituent colleges, and 18 chartered private universities. In area of study there are eight public and six private universities. A fraction of these universities were involved in the study. This specifically targeted the universities were in counties of Uasin Gishu (0.5528° N, 35.3027° E), Kisumu (0.0917° S, 34.7680° E), Kericho (0.3689° S, $35. 2863^{\circ}$) and Nakuru(0.3031° S, 36.0800° E). The universities found in the region and were involved in the study included, Moi University, University of Kabianga, University of Eldoret, Mt Kenya University Eldoret Campus, Kabarak University and Great Lakes University of Kisumu. These locations of the study are as shown in Appendix C. This area was considered ideal for the study since it has a good number of public and private universities. This region was also preferred because little research has been carried out on the same variables with the current study. This would help bring up new information on the stress level and exam cheating attitude of university students in the region. The universities in the region also experience problems of students undergoing high levels of stress and cases of exam cheating.

3.5 The Study Population

The target population of this study included all undergraduate university students in both public and private universities in Kenya at the time the study was carried out. According to ministry of education strategic plan for the period 2018-2022 there are 74 universities in Kenya. There are 37 public universities and an equivalent number for private universities. The distribution of public and private universities in Kenya is presented in table 3.1;

Table 3.1 Distribution of public and private universities in Kenya

County	Public university	Private university
Bomet	1	-
Bungoma	1	-
Kakamega	1	1
Kericho	1	1
Kisii	1	-
Kisumu	1	1
Migori	1	-
Nakuru	1	1
Nandi	1	1
Siaya	1	-
Uasin Gshu	2	1
Total	12	6

Table 3.1 above shows the distribution of universities per county in western Kenya

The distribution of student population according to gender and type of university for the year 2017/2018 by ministry of education strategic plan is as presented in the table 3.2 below;

Table 3.2: Distribution of university population for 2017/2018 academic year

University type	Male	Female
Public	255875	171090
Private	46648	39453
Total	302639	210543
Grand Total	513182	

The accessible population was the undergraduate education students in the universities involved in the study in western region.

The respondents of the study included male and female undergraduate students of Bachelor of Education. The universities involved were University of Eldoret, Moi University, University of Kabianga, Kabarak University, Mt. Kenya University Eldoret Campus, and Maseno University. The undergraduate students were drawn from the first to fourth years of study of 2017/ 2018 academic year.

The accessible population was obtained through stratified sampling. Sharma (2017) explains that this method involves the division of a population into smaller groups known strata. In stratified random sampling, the strata are formed based on members shared attributes or characteristics. These subsets of the strata are then pooled to form a random sample. The advantage of using the method is that it is highly representative of the population. It also makes it possible to make inferences. The sample was obtained from either a private or a public university, male or female students were selected and selection also occurred across the four years of study.

The study population of the study was the Bachelor of Education students in the six universities involved in the study. This composed of male and female students in four

public and two private universities across the four years of study. The test dataset had a similar number of both genders. Regarding the type of university, majority of the respondents (48.8%) were from public universities. The data for the year of the study was well distributed with majority of the respondents (33.2%) being third years while the first and fourth years were the least representing 21.5%.

Table 3.3: Demographic characteristics of the sample (N = 450)

Demographic	Characteristic	Frequency	Percent
Gender	Male	225	50
	Female	225	50
Total		450	
Type of University	Public	332	73.7
	Private	118	26.3
Total		450	
Year of study	First year	110	24.4
	Second year	107	23.8
	Third year	116	25.8
	Fourth year	117	26
Total		450	

Table 3.3 indicates that a sample of 450 students was selected in the study. There were an equivalent number of participants per gender selected from private and public universities of western Kenya. The respondents were distributed across the four years of study for Bachelor of Education students. This group was used because it gave a representative sample of target population.

3.6 Sample and Sampling Procedure

The sample was obtained from universities based in the Western region. From the region the counties selected had at least one public or a private accredited university or a campus

of the same. The universities that were involved in the study included University of Eldoret, Moi University, University of Kabianga, Kabarak University, Mt. Kenya University Eldoret Campus, and Maseno University. These universities were selected through purposive sampling. It was purposive because one of the requirements of the study was that the university be offering a Bachelor of Education course and that the students must have been present at the time of the study. The universities involved had the schools or faculties of education from which the sample was drawn from since it was not possible to involve all the students from all schools. Purposive sampling may be the only appropriate method available if there are only limited numbers of primary data sources to contribute to the study (Sharma, 2017). In the western region the number of universities is not very high in comparison to the number that was required and the reason why purposive sampling method was used. Palys and Atchison (2008) assert that this technique sampling allows the findings of the study to be generalized to the entire population. The findings were therefore generalized to the entire university populations from which the sample was drawn. Public and private universities were used to increase the variability of the sample. In Kenya these are the existing types of universities and it was necessary to include the two to get more confidence in what is happening across both. Bachelor of Education students were selected because in most universities the number of education students is relatively high compared to students in other schools. This gave the study a high chance to obtain a sample with varied demographic characteristics. The descriptive characteristics, data screening assessment of the sample were determined using SPSS Version 24. The sample size was calculated using the equation below

$$n = p(1 - p) \left(\frac{z}{E} \right)^2$$

In the equation, the sample size is represented by n , the expected sample proportion is represented by p (0.5), and the confidence level is represented by z (1.96), while the error margin (0.05) is represented by E .

$$n = 0.5(1 - 0.5) \left(\frac{1.96}{0.05} \right)^2$$

Therefore, the minimum sample size for the current study was estimated to be 384 respondents. A sample of 450 students was selected using proportional allocation. Since 450 were above the expected minimum sample size, then the number of respondents chosen is considered adequate enough for the study. If 384 was taken the return rate could have affected the sample size below since some of the respondents would not have returned the questionnaires and some would not have responded to the items in the expected standard. The choice of the number above the expected was therefore necessary.

The number of respondents that participated in the study was 75 from each university that and 18.7 was required from each year of study. An equivalent number of 9 for male and female respondents were selected. In order to obtain this numbers to obtain this number there were two small chips of papers of blue and white colours. The males were to pick blue and female respondents were to pick white. The paper chips were marked Y and N of which there were only 9 marked Y for each gender. Those who picked the Y labeled paper chips responded to the questionnaires. The Simple random sampling was used since this would give everyone the opportunity to participate in the study and it enhanced probability of the sample. The questionnaires were administered at the end of a class

where the students were attending a common Bachelor of Education course. This was made possible with the help of the lecturer in the class and class representatives.

3.7 Research Instruments

The survey instrument had 3 sections. The first section had 4 items used to collect demographic information on gender, type of university, year of study, and age. The section was essential since it enabled the findings of the study to be generalized to other students in other universities. It also assisted the researcher to describe the characteristics of the study sample and make them measurable.

The second section had two sets of self-reported questionnaires with closed ended items. The first questionnaire was used to obtain information on academic and non-academic stress levels. It was made up of academic stress related items, titled Academic Stress Level (ASL) consisting of 13 items. The second part had 14 items based on non-academic stress related variables, titled Non-academic Stress Level (NASL).

ASL and NASL questionnaire was a modified version of the University Student Stress Survey (USSS) which was developed and used by Burge (2009). The USSS was developed to provide a measure of the severity of stress experienced by university students. It was also meant to allow for the students' personal experience and their cognitive appraisal of the stressor or the intensity of their experienced stress. It included only demands that caused significant stress for most students (e.g., coursework), as well as those that may only be experienced by minority groups such as international students or students who are parents. Burge's instrument was used to assess the levels of stress among Australian university students ranging from the ages of 16-40 years. The original

instrument (USSS) consisted of 21 items based on three levels. The first level related to academic stress and consisted of 6 items. The second level consisted of 6 items based on time related stress and the third consisted of nine items based on social or environmental related stress (Burge 2009). ASL and NASL borrowed from USSS but differed in the number of items. The two sections consist of 13 and 14 items each, relating to academic and non-academic stress related items respectively. The USSS questionnaire adopted a 4-point Likert scale. The total number of items for ASL and NASL was 27 in comparison to USSS which had 21 items. It also differed with the original scale because it was based on a five-point likert scale. The use of USSS was considered relevant to this study since it was used among university students and it was concerned with academic and non-academic stress as is the case in this study. However the USSS was used among Australian students population while ASL and NASL was used among Kenyan university students.

There are different methods that have been used by different researchers to measure stress. Hamaideh, (2011) points that there are two main approaches to measuring university stress. These include psychological and physiological measurements. There are different psychological stress ratings that have been used by researchers in the past. Examples of stress scales include Perceived Stress Scale (PSS), Psychological Stress Measure (PSM). Gadzella (1991) informs that these two approaches can be measured using same instrument. Earl (2005) corroborates that well designed likert items exhibit both symmetry and balance.

This research adopted the above mentioned approaches. The amount of stress was rated as the levels of stress and the sources specified as academic and non-academic stressors.

This study adopted the same format but with modifications to suit the scope for instance there was a difference in likert scale. The original used a four- point scale but this study used a five-point scale. Open ended questions were added at the end of the third section.

The third section had the second questionnaire used to collect data on the attitude toward exam cheating. The section was titled Exam Cheating Attitude (ECA). This questionnaire contained 18 closed-ended items. Such items are preferable for surveys, because higher response rates are obtained when users don't have to type so much. Also, answers to closed-ended items could easily be analyzed statistically, and that is usually the case with survey data. Equally, three forms of exam dishonesty were included in the questionnaire as categorical variables. Measurement was modeled on the likert scale that measures the extent to which an individual agrees or disagrees with the statements. Dawes (2008) and Earl (2005) highlights that Likert is an ordinal scale measuring items in a continuum from strongly agree to strongly disagree. Each response is assigned a numerical value hence allowing the range to capture the intensity of the feelings of the respondent towards a given item.

The participants responded to the items by indicating the extent of their agreement or disagreement with the statements. The Likert scale was preferred because it would convert the opinions of the respondents into quantifiable responses thus enhancing use of quantitative method. The questionnaire also had 4 items not based on likert scale. The 19th item required the respondents to state three items based the likert scale that they considered as the highest cause of exam cheating. The last three items required the respondents to respond on a YES or NO basis. This would also enable the research to

obtain additional information that may not have been gained through the closed ended on the likert scale.

Questionnaire was the preferred method of collecting data because it would lead to quantified data. It also allowed the study to carry out statistical analysis thus making the study to be scientific and consequently raising the objectivity. Quantification enabled the results of the study to be compared and contrasted with other research. Furthermore quantitative data can be used to test research hypotheses and eventually create new theories (Popper, 2004). Additionally questionnaires were quick to administer and relatively cheap.

The use of questionnaire was also judged advantageous but there are also disadvantages in using it since it may be hard to ascertain how truthful a respondent is. The questionnaire was also a bit long and respondents got tired and gave answers without much thought since the options were given. This was mitigated by adding other items not based on the likert scale. The challenges were reduced by adopting questionnaires that have been used before but with modifications to suit the scope of this study. Adhering to ethical considerations was also done to help the respondents to give their responses without feeling embarrassed. The respondents were assured of confidentiality and anonymity. This too reduced the tendency of respondents trying to make an impression.

3.8 Reliability and validity of the research instruments

Reliability was established by conducting a pilot study in two universities that were not involved in the study. These were Masinde University of Science and Technology and Baraton University. The purpose of the pilot was to establish reliability of the

questionnaire and to confirm how the sampling procedure would be used. Internal consistency of the questionnaire was established. To achieve this more items in the questionnaire were generated. The ASL questionnaire initially had 18 items, NASL had 25 items and ECA had 28 items. After subjecting the questionnaire to the pilot study, items that yielded ambiguous responses were eliminated. Cranach's alpha was used and items that did not yield correlations above 0.6 were eliminated. Eventually ASL had 13 items, NASL14 and ECA had 22 items.

To ensure that validity of the instruments the researcher ensured that construct and content validity were tested. Construct validity is the extent to which items within a questionnaire or survey instrument reflect the theoretical construct they are supposed to measure (Bagozzi, 1991). This validity test was done to ensure that the items in the questionnaire adequately measured the concepts of academic stress levels, nonacademic stress levels and exam cheating attitude. This was established as shown in table 3.2 below.

Table 3.4 Construct validity test

	AVE	CR	Academic Stress	Non-Academic Stress	Attitude
Academic Stress	0.340	0.602	0.583		
Non-Academic Stress	0.596	0.812	0.314	0.772	
Attitude	0.447	0.707	-0.149	-0.055	0.669

Notes: AVE = ≥ 0.50 , CR ≥ 0.70 , Average Variance Extracted rho $> .5$, CR = Jöreskog rho $> .7$ Construct validity

In order to establish content validity the study ensured that the literature reviewed was relevant to the study variables to allow appropriate understanding of the study variables.

Content validity refers to the appropriateness of the content of an instrument. This was realized by formulating the items in the questionnaires based on the objectives of the study. Representative items of the questionnaires were generated from the content on the variables in the literature review. Initially academic stress level ASL and non academic stress level (NASL) had 18 items each used to collect responses. A total of 13 ASL and 14 NASL item were preserved because they had the minimum threshold to construct a structural equation model (SEM). Five ASL items and three NASL items did not meet the minimum factor loadings of 0.50 as required by the rule in SEM were omitted. Similarly the questionnaire for exam cheating attitude (ECA) was initially tested with 28 items and eventually 24 items were retained. Content validity was done to ensure that the content of the items measured the intended aspects of the study.

3.9 Data collection procedure

The researcher obtained an introductory letter from the Dean of the School of Education, Moi University which was used in seeking permit to conduct research from NACOSTI. The same letter was used to seek permission to conduct the research in the universities that were involved in the study. After obtaining the research permit it was used to obtain permission to conduct research in the respective universities. The researcher requested the assistance of heads of departments and course coordinators in the universities involved to administer the questionnaires to the students. The researcher was present during the collection of data to ensure that the questionnaires were responded to and returned.

3.10 Scoring of the instruments

The first section of the questionnaire provided bio data on gender, type of university, the year of study, and age. Data on Stress levels were obtained through academic stress level scale and non-academic stress level scale. Academic had 13 items and non-academic stress level scale had 14 items on a likert scale and 2 items in NASL not based on the likert scale. The respondents stated the extent of stress level. Scoring of responses were as follows; not stressful (NS =1), slightly stressful (SS=2), moderately stressful (MS=3), highly stressful (HS=4) and extremely stressful (ES=5). The maximum scores on academic stress levels were 65 and the minimum was 13. Scores ranging from 45-65 were considered as high level of stress, 35-44 as moderate stress level and 34 and below as low stress. The maximum score on non-academic stress level scale was 70 and minimum was 14. Scores from 49-70 were considered as high level of stress, 37-48 as moderate or comfort zone and 36 and below as low level of stress. In excel spread sheet high stress level comprised ES and HS was coded as 3, moderate stress level remained as MS and was coded as 2 and low stress level which included NS and SS was coded as 1. The remaining two other closed ended items sought to establish which items caused higher stress in the NASL items. The mean score on the scales represent the stress index. The mean on the academic stress level scale is the academic stress level index (ASLI) and that on the non-academic stress level scale was the non-academic stress level index (NASLI).

Attitude towards Exam cheating attitude scale items were used to collect data on the attitude of respondents. The responses ranged from strongly agree to strongly disagree based on a five-point likert scale. This section was composed of 18 items that required

the respondents to express the extent of their agreement or disagreement to the items. the scoring was done as follows; Strongly agree (SA) was awarded 5 points, agree (A) 4 points, neutral (N)3disagree (D)2 strongly disagree(SD) 1. The total maximum score based on 18 items was 90 and lowest score was 18. Total Scores ranging from 62-90 was considered a positive attitude, 48-61 ambivalent attitude and 18-47 a negative attitude. In the excel spreadsheet positive attitude comprising of SA and A was coded as 1, neutral or ambivalent attitude as 2 and negative attitude comprising D and SD -was coded as 3.It also had one item that was not based on the likert scale that required the respondents to indicate 3 out of the 18 ECA items they considered possibly highly associated with the attitude towards exam cheating.

3.11 Data analysis methods

The statistical package for social sciences version 24 (SPSS) was used to run the data. The package was opted for since it gave room for computation of both descriptive and inferential statistics. It was also advantageous because it allowed easier management of data. Besides the package was very flexible and includes procedures for producing tables and reports that are suitable to the user. Descriptive statistics used included frequency, percentages, mean, and standard deviation. These descriptive statistics enabled the researcher to describe the variables and summarize the data. Descriptive statistics simplified the data thus giving a better understanding of the same.

Inferential statistics used included t-test, one way ANOVA and Pearson correlation. T-test was used to the test the significance on the type of university and gender differences in expression of stress levels. It was considered appropriate since the researcher required to determine the difference between two means. These were the means based on gender

and type of university respondents on academic stress levels. One way ANOVA was used to determine the difference on means on academic stress levels based on the year of study. This was considered appropriate since only two means were being considered.

Two-way ANOVA was used to determine the differences on the levels of stress according to gender, year of study, type of university and age. The levels of stress were categorized as high, moderate and low. It was also used to determine the difference in the attitude towards exam cheating based on gender, year of study, type of university and age. Exam cheating attitude was categorized as positive, neutral and negative. This statistic chosen because it determined the variability of stress levels and exam cheating attitude based on gender, year of study, type of university and age.

Pearson correlation was used to determine the relationship between academic and non-academic stress levels with the attitude towards exam cheating attitude. This was statistic was found relevant because there was a need to determine the relationship between stress levels and exam cheating attitude. The inferential statistics used enabled the researcher to test the hypotheses draw conclusions, make inference and recommendations. The level of significance for testing the hypothesis was .05

3.12 Ethical consideration

During the research ethical consideration was upheld. The researcher obtained a letter from the Dean, School of Education Moi University to confirm the status as post graduate higher degree student (Appendix F). The letter was used to obtain the permit to conduct research from National Commission for Science Technology and Innovation (NACOSTI). Research authorization and license (Appendix F and G) were used to obtain

permission to access the students in the universities that were involved in the study. Respect for the respondents was upheld by ensuring that not much of their time was consumed in the process of responding to the questionnaires. The respondents were not coerced to participate but rather they were given the opportunity to voluntarily choose to participate or drop out in the process if they wished. The researcher explained to the respondent the purpose of the study and they were also assured of confidentiality of the information they gave. Respondents were not required to indicate their names in the questionnaire as a way of ensuring confidentiality of the information they gave. A letter of consent was served to the respondents to request them to participate in the study.

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This section is concerned with data analysis and presentation of findings. Presentation is done on three sections. The first section presents the return of questionnaires and description of demographic variable mainly in terms of frequencies and percentages. The second presents the description of academic stress level, non-academic stress level and exam cheating attitude in relation to gender, university type, year of study and age. The data is mainly presented by use of frequencies, percentages and means. The third section presents the inferential statistics based on the objectives and hypotheses tests. Hypothesis test were applied the academic stress level, non-academic stress level and age exam cheating attitude in relation to gender, university type, year of study. Correlation test between stress levels and exam cheating attitude is also presented in this section. The fourth section presents the discussion of the findings based on the objective of the research. Finally this chapter presents the summary of the findings.

4.2 Return rate of questionnaires

The samples were obtained from five universities based in the Western region of Kenya namely: University of Eldoret, University of Kabianga, Moi University, Kabarak University, Maseno and the Mount Kenya University Eldoret campus. The survey instrument was designed using closed ended items. Non-academic stressor was investigated using 15 items, while academic stressor was investigated using 13 items. Attitude towards exam cheating was investigated using 19 items. Gender, type of

university, year of study, and age were used as demographic variables. Equally, three forms of exam dishonesty were included in the questionnaire as categorical variables.

A total of 450 questionnaires were issued to various university students and 410 usable questionnaires were returned. The response rate of the study was determined by the formula below;

$$\text{Response Rate} = [(\text{Responses Returned}) / (\text{Survey Sent Out})] * 100$$

$$\text{Response Rate} = (410) / (450) * 100$$

$$\text{Response Rate} = 91.1\%$$

The percentage of response rate is high indicating that the number of returned responses was an adequate representation of the sample. It also indicated that the questionnaire was able to capture the required data.

4.3 Description of Demographic Variables

The moderating variables of the study were gender, type of university, the year of study, and age. The independent variables were the stress levels identified as academic stress level and non-academic stress level. The stress levels were categorised as high, moderate and low. The dependent variable was the exam cheating attitude categorised as positive, neutral and negative. The data from demographic variables were used to understand the characteristics of the sample. This would allow generalisations of the findings to the target population. The demographic variables were used to achieve quantification of the data. The descriptions of these variables are presented in the frequency table 4.1 below.

Table 4.1: Demographic description of the participants

Variable	Characteristics	Frequency	Percent
Gender	Female	205	50
	Male	205	50
Type of University	Private	108	26.3
	Public	302	73.7
Year of study	First year	101	24.6
	Second year	97	23.6
	Third year	105	25.8
	Fourth year	107	26
Age	20 and below years	90	21.9
	21-25 years	271	66.2
	26-30 years	41	10
	30 and above years	8	1.9

Table 4.1 above shows that the number of respondents based on gender was equal. Male respondents were 50% and female respondents were 50%. This was representative reflection of the number of students pursuing the course. There were a higher number of respondents from public universities than from private with 73.7% and 26.3% respectively. Distribution of respondents based on the year of study indicates that fourth year was represented by 26%, third year 25.8% first year, 24.6 and second year with 23.6%. There was almost an even number of respondents based on the year of study. The respondents were also described based on age and the table shows that the highest number of respondents fell within the age bracket of 21-25 with 66% , 20 and below were 21.9%, age 26-30 was up 10% of the sample and the age bracket with least respondents was age 30 and above with 1.9%. Majority of undergraduate students fall within the age

bracket of 21-25 years and that is why there was a higher representation of that age bracket.

4.4.0 Description of Stress Levels

Academic stress level (ASL) was one of the independent variables of the study. It relates to the stressors emanating from the learning environment of university students. The levels of stress were described according to gender, type of university, year of study and age. The stress was measured as low, moderate or high as presented below.

4.4.1 Academic stress level and gender

The academic stress level was put into three categories low stress, moderate stress and high stress. Consideration of academic stress level was done on the basis of gender. The distributions of categories of stress level based on gender are presented in table 4.2 below.

Table 4.2: Gender and Academic Stress Level Cross tabulation

Gender	Low stress	Moderate stress	High stress	Total	ASLI
Female	28 (13.6%)	61 (29.7%)	116 (56.6%)	205	2.4
Male	20 (9.7%)	91 (44.3%)	94 (45.8%)	205	2.4
Total	48	152	210	410	2.4

The presentation in table 4.2 above indicates that there was a higher count of female respondents with high stress level as compared to the male. However male respondents also had higher number of respondents with moderate stress level than the females. On the contrary female respondents also had a higher number with low stress as compared with the male respondents. On average both male and female students had moderate academic stress levels with equivalent academic stress level index (ASLI) of 2.4. Most

students in Kenyan universities had high academic stress levels with female participants at 56.6% and male at 45.8 %. There is an indication of a greater percentage of high stress than the other categories of stress.

4.4.2 Academic Stress level and the type of university

Stress level was also compared in relation to the type of university. The university types in Kenya are either public or private. The number of respondents from public university was higher than from private universities in correspondence to the capacities of the universities. Table 4.3 below presents stress level as per the university type.

Table 4.3:University and Academic Stress Level Cross tabulation

University	Low stress	Moderate stress	High stress	Total	ASLI
Private	9 (8.3%)	40 (37%)	59 (54%)	108 (26.3%)	2.5
Public	39 (12.9%)	112 (37.1%)	151(50%)	302 (73.7%)	2.4
Total	48 (11.7%)	152(37.1%)	210 (51.2%)	410	2.4

The number of respondents from private universities was 26.3 percent and 73.7 percent from the public universities. There were a higher percentage of respondents with high stress levels from private universities than from public universities. From private universities 54% expressed high stress level in comparison of 50% from public universities. The ASLI was 2.5 and 2.4 for private and public universities respectively. This was another indicator of higher stress level among respondents from private universities. Contrastingly there were a lower percentage of those who expressed low stress levels in private universities than those in public but the percentage of those with

moderate stress was the same. This does not mean that the academic environment is worse in private universities because those with low stress were lower than that of students in public universities. These findings may have to do with the way students perceive and appraise their learning environment.

4.4.3 Academic stress level and the year of study

The year of study was also an important demographic variable of this study. Bachelor of education takes four years and therefore respondents were drawn from each year of study. Stress levels based on the year of study was described as shown in Table 4.4 below

Table 4.4: Year and Academic Stress Level Cross tabulation

Year of study	Low stress	Moderate stress	High stress	Total	ASLI
Year 1	22 (22%)	35 (35%)	43 (43%)	100 (24.4%)	2.2
Year 2	12 (12.4%)	36 (37.1%)	49 (50.1%)	97 (23.7%)	2.4
Year 3	6 (5.7%)	37 (34.9%)	63(59.4%)	106 (25.8%)	2.5
Year 4	8 (7.5%)	44 (41.1%)	55 (51.4%)	107 (26.1%)	2.4
Total	48 (11.7%)	152 (37.1%)	210 (51.2%)	410	2.4

The fourth year students had the highest representation followed by the third, first and second years. There were more students with high stress from the third year group with 59.4%as compared to the first, second and fourth year students. This was followed by fourth year students with high stress at 51.4%.This means that academic pressure is

higher in the third and fourth years of study. There were a greater percentage of high stress levels compared to moderate and low stress across all the years of study. The ASLI indices show that the third year university students had high academic stress levels (ASLI= 2.5). On average the first, second and fourth year respondents had moderate academic stress levels indices. The third year students were experiencing this due to higher academic work and inability to manage time.

4.4.4 Academic stress level and age

This research also aimed at understanding the connection between age and the level of stress. There were four categories of age of the respondents. The first category was that of 20 and below. The second category was the age between 21-25. The majority of the respondents were within this age bracket. The other brackets were ages between 26-30 and 30 and above. Table 4.5 below presents the distribution of levels of stress according to age.

Table 4.5 Age and academic stress level Cross tabulation

Age	Low stress	Moderate stress	High stress	Total	ASLI
20 and below	15 (16.9%)	36 (40.4%)	38 (42.7%)	89 (21.7%)	2.3
21-25	25 (9.2%)	101 (37.1%)	146 (53.7%)	272 (66.3%)	2.4
26-30	7 (17.1%)	11 (26.8%)	23 (56.1%)	41(10%)	2.4
30 and above	1(12.5%)	4 (50%)	3 (37.5%)	8 (1.9%)	2.4
Total	48 (11.7%)	152 (37.1%)	210 (51.2%)	410	2.4

The ASLI indices indicate that regardless of age, the bachelor of education students on average had moderate academic stress levels. The age bracket of 26-30 had a relatively

higher percentage of respondents with high academic stress level followed by those in the age bracket of 21-25 with 53.7%, 30 and above with 37.5% respectively. The age bracket of 30 and above had the highest with moderate stress level at 50 percent. Academic stress level was high across all age brackets with the exception of age 30 and above. However this means that age did not necessarily determine the level of stress since high stress cuts across almost all the age brackets. The age bracket of 26-30 experienced higher stress level because by that age students may have a lot of activities to balance which compete with their attention for academic work. Some could be having families, or are engaging in small enterprises which make them have additional stress.

4.5.0 Description of Non-Academic Stress Level

Non-academic stress level was the second independent variable of this study. An attempt was made to understand the extent at which non-academic stress level was influenced demographics factors namely; gender, type of university, year of study and age was obtained. Non-academic stress was categorised as low, moderate and high stress

4.5.1 Non-academic stress and gender

The intention was to find whether male and female students differed in their perception of non-academic stress. Stress levels were categorised as low, moderate and high. Table 4.6 below shows the response on non-academic stress level based on gender in term of frequency and percentage.

Table 4.6: Gender and non-academic stress level Cross tabulation

Gender	Low stress	Moderate stress	High stress	Total	NASLI
Female	33 (16.1%)	84 (41%)	88 (42.9%)	205	2.3
Male	36 (17.6%)	79(38.5%)	90 (43.9%)	205	2.3
Total	69 (16.8%)	163 (39.8%)	178 (43.4%)	410	2.3

The table 4.6 above shows that male and female respondents did not differ greatly in their expression of non-academic stress levels. With NASLI on a 3-point scale, both male and female students had moderate non-academic stress of 2.3. There were a bigger percentage of students with high stress level. There were a higher percentage of respondents among female respondents with moderate to high stress levels while a smaller percentage had low stress level. Female respondents with high stress level was only lower than that of the male by only one percent and 3.5 percent higher than the male on moderate stress level. On low stress level the female respondents had a lower number of respondents as compared with the male respondents. This is an indication that female students were slightly less stressed than the male respondents on non-academic stress than the male respondents however there is no much difference. This can be attributed to the fact that both male and female students are better in coping with non-academic stress

4.5.2 Non-academic stress level and type of university.

This research also enquired on how non-academic stress level was influenced by the type of university. The types of universities were public and private. The question was on whether non-academic stress level can be determined by the type of university. There

were 108 students from private university and 302 from public. The levels of stress as per university are shown in table 4.7 below

Table 4.7: University and non-academic stress level Cross tabulation

University	Low stress	Moderate stress	High stress	Total	NASLI
Private	12 (11.1%)	41 (38%)	55 (50.9%)	108 (26.3%)	2.4
Public	58 (19.2%)	121 (40.1%)	123 (40.7%)	302 (73.6%)	2.2
Total	70 (17.1%)	162 (39.5%)	178 (43.4%)	410	2.3

The NASLI indicate that bachelor of education students in both private and public had moderate non-academic stress levels. However students in private universities manifested higher non-academic stress level than those in public universities. The table above shows that the sample was made up of was 26.3 and 73.6 percent from private and public universities respectively. There were a larger percentage of students with high non-academic stress level in comparison with those with moderate and low stress. From private universities there were 50.9 percent of respondents with high non-academic stress level as compared to 40.7 percent of those from public universities. Among the respondents from the public universities there was a very close equivalence between those with moderate and high stress with 40.1 and 40.7 percent respectively. This means that students from private universities suffer more from non-academic stress than those from public universities.

4.5.3 Year of study and non-academic stress level

The year of study was one of the demographic factors. This research therefore sought to understand the level of stress based on the year of study. The years of study for bachelor of education degree in Kenya range from year one to four. The findings on levels of stress based on the year of study are presented in table 4.8 below.

Table 4.8: Year of study and non-academic stress level Cross tabulation

Year	Low stress	Moderate stress	High stress	Total	NASLI
Year 1	30 (30%)	35 (35%)	35 (35%)	100 (24.4%)	2.1
Year 2	16 (16.5%)	39 (40.2%)	42 (43.3%)	97 (23.6%)	2.3
Year 3	13 (12.3%)	34 (32.1%)	59 (55.6%)	106 (25.9%)	2.4
Year 4	11 (10.3%)	54 (50.5%)	42 (39.2%)	107 (26.1%)	2.3
Total	70 (17.1%)	162 (39.5%)	178 (43.4%)	410	2.3

The description in table 4.8 above indicates that regardless of the year of study the university education students had moderate non-academic stress levels. However the third year students exhibited higher level of non-academic stress than the other years with NASLI of 2.4. The data above show that third year respondents had 55.6 percent with high level of non-academic stress. The students in that year of study were affected more by non-academic issues than the other years. This group of students experience higher levels of non-academic stress than the other academic years because they face challenges emerging from social and financial needs. The second years with 43.3 percent of respondents were also more affected than the first and fourth year students. This could be the time when students are beginning to come to terms with realities of university life and

may prove challenging. The fourth year had 50.5 percent of those with moderate stress level and was the highest in that level. They also had 10.3 percent of low stress level which was the least percentage of that level as compared to the other years. In the fourth year students are more mature and are able to manage their non-academic stress more easily than in the previous years. The first year students were more comfortable with non-academic stress than those of the other years since they had the lowest percentage (35%) with high stress and the highest (30%) with low stress. In the first year student students in university are given more guidance and more attention by parents and more consideration by university staff. Although the respondents experienced moderate stress there was a higher percentage with high stress than with low stress. A higher percentage of 43.3 percent of non-academic stress level means that most students face challenges in the nonacademic environment.

4.5.4 Age and Non-academic stress level

Age was another demographic variable and an attempt was made to find out its influence on non-academic stress level. The age brackets were 20 and below, 21-25, 26-30 and 30 and above. The findings of non-academic stress levels are presented on the table 4.9 below.

Table 4.9 Age and non-academic stress level Cross tabulation

Age	Low stress	Moderate stress	High stress	Total	NASLI
20 and below	21 (23.3%)	30 (33.3%)	39 (43.3%)	90 (22%)	2.2
21-25	40 (14.8%)	116 (42.8%)	115 (42.4%)	271(66.1%)	2.3
26-30	6 (14.6%)	15 (36.6%)	20 (48.8%)	41(10%)	2.3
30 and above	2 (25%)	2 (25%)	4 (50%)	8 (1.9%)	2.3
Total	70 (17.1%)	162 (39.5%)	178 (43.4%)	410	2.3

Table 4.9 above shows that regardless of age, bachelor of education students had moderate non-academic stress levels. Most of the respondents were within the age bracket of 21-25. The students within this bracket expressed moderate non-academic stress level. Most students in the age bracket of 30 and above had the highest level of non-academic stress. This is because they are trying to balance between academics and other social responsibilities such as family duties and engaging in extra sources activities to earn a living and even some have established romantic relationships. This was followed by those within the age bracket of 26-30 with 48.8 percent. This suggests that those who are older had higher levels of non-academic stress than the younger groups. Most of the younger age are still highly dependent on their by their parents. The overall percentage show that those with high level were 43.3%, moderate 39.7 and low 17%. This indicates that respondents rated higher on non-academic stress levels than low and moderate stress.

4.6.0 Description of Exam Cheating Attitude

Exam cheating attitude was the dependent variable. Many factors determine exam practices adopted by university students but this study chose to study exam cheating

attitude held by students. The value attached to good grades can influence students' behaviour in exam. However individuals vary and this variable was also observed on the basis of gender, type of university, year of study and age brackets. Exam cheating Attitude was conceptualised as negative, neutral or positive.

4.6.1 Gender and exam cheating attitude

There was an attempt to find out whether there was a difference on exam cheating attitude based on gender. Table 4.10 below shows the frequencies and percentage of male and female respondents on exam cheating attitude.

Table 4.10: Gender and Exam cheating attitude Cross tabulation

Gender	Negative attitude	Neutral attitude	Positive attitude	Total	ECAI
Female	34 (16.6%)	109 (53.2%)	62 (30.2%)	205	1.9
Male	48 (23.4%)	99 (48.3%)	58 (28.3%)	205	2.0
Total	82 (20%)	208(50.7%)	120(29.3%)	410	1.9

The presentation on table 4.10 above indicates the attitude held by students towards exam cheating was expressed as positive, neutral or negative. The Exam Cheating Attitude Index (ECAI) is based on a 3-point scale. The female respondents had lesser percentage of those with negative attitude towards exam cheating while male respondents had 23.4 percent. This means that the male respondents were less likely to engage in exam cheating than the female respondents. Likewise on the positive attitude, the male respondents had a lesser of percentage 28.3 in comparison to female positive attitude of 30.2 percent. This also indicates a higher likelihood of female students to engage in exam

cheating practices than male respondents. ECAI points out that most of the students were uncertain about exam cheating in university. The female students had a higher ECAI than the male students.

4.6.2 Type of university and exam cheating attitude

The types of universities that participated in the study were private and public. University type can determine the type of attitude held by its students. Table 4.11 below describes exam cheating attitude of the participants.

Table 4.11: Type of university and Exam cheating attitude Cross tabulation

University	Negative attitude	Neutral attitude	Positive attitude	Total	ECAI
Private	6 (5.5%)	56 (51.9%)	46 (42.6%)	108	1.6
Public	76 (25.2%)	152 (50.3%)	74 (24.5%)	302	2.0
Total	82 (20%)	208 (50.7%)	120 (29.3)	410	1.9

Based on the results above, it is evident that there were 42.6 percent of respondents from private universities with a positive attitude higher than that from participants from public universities of 24.5 percent. They also had a smaller percentage of those with negative attitude from private universities compared with those from public universities. The table also shows that there were more students in private and public universities with ambivalent attitude towards exam cheating. However students from private universities have a higher tendency of exam cheating than those from public universities. This can be attributed to the fact that students in private universities had lesser qualification than those in public universities. Exam cheating could therefore have been adopted as a means of measuring up with their counterparts.

4.6.3 The year of study and exam cheating attitude

This research also examined whether the year of study could determine the attitude held towards exam based on the year of study. The years of study were from first to the fourth year. The findings for this are presented in table 4.12 below.

Table 4.12: Year and Exam cheating attitude Cross tabulation

Year of study	Negative attitude	Neutral attitude	Positive attitude	Total	ECAI
1	24 (24%)	54 (54%)	22 (22%)	100	2.0
2	24 (24.7%)	45 (46.4%)	28 (28.9%)	97	2.0
3	22 (20.8%)	51 (41.1%)	33 (31.1%)	106	1.9
4	12 (11.2%)	58 (54.2%)	37 (34.6%)	107	1.8
Total	82 (20%)	208 (50.7%)	120 (29.3%)	410	1.9

Data presented in table 4.12 above indicates that most of the respondents expressed a neutral attitude towards exam cheating. Though most expressed an uncertain attitude there were a higher percentage of those with positive attitude than with negative attitude. It also reflects that the third and fourth years had higher percentage of positive attitude as compared to the first and second year. There is a tendency of shift of attitude from negative to positive between the first to the fourth year. The third and fourth year students had a higher tendency towards exam cheating than the first and second year students. The students generally had an ambivalent attitude towards exam cheating as indicated by ECAI of 1.9.

4.6.4 Exam cheating attitude and age

This section sought to understand whether age determined the attitude held towards exam cheating. The findings are presented in table 4.13 presents below.

Table 4.13:Age and exam cheating attitude Cross tabulation

Age	Negative attitude	Neutral attitude	Positive attitude	Total	ECAI
20 and below	18 (20%)	50 (55.6%)	22 (24.4%)	90	1.8
21-25	60 (22.1%)	134 (49.4%)	77 (28.4%)	271	1.9
26-30	4 (9.7%)	19 (46.3%)	18 (43.9%)	41	1.7
30 and above	0	5 (62.5%)	3 (37.5%)	8	1.6
Total	82 (20%)	209 (51%)	120 (29%)	410	1.9

Respondents across all the age brackets had higher percentage on neutral attitude than on positive and negative. Respondents from the age brackets of 26-30 had the highest percentage of 43.9 of those with positive attitude towards exam cheating. This was followed by those in the age bracket of 30 and above with a percentage of 37.5. This was higher in comparison with those in the lower age brackets. This implies that those who are older have a higher tendency of a more positive attitude towards exam cheating. This tendency can be attributed to peer influence and the need to attain higher GPA.

The presentation on descriptive statistics presented above describes the academic stress level among university students. The description indicates that students generally experience high academic stress especially the female students and those in private universities. It was also found university students experienced high non-academic stress and the most affected group was the third year students. Descriptive statistics also indicate university students had an ambivalent attitude towards exam cheating. Females, private university students and older students had a higher tendency towards exam cheating than the other groups.

4.7.0 Academic Stress Levels among University Students

The first objective of this study was to investigate the level of academic and non-academic stress levels among university students based on gender, type of university, the year of study and age. This was achieved by formulating hypothesis to find out the levels of stress. The first hypothesis (HO₁) was stated as follows;

HO₁ There is no significant difference in the academic stress level among university students based on the demographics.

The hypothesis tests for academic stress level was carried out based on gender, type of university, the year of study and age. The findings are presented in tables 4.14 and 4.15 below

Table 4.14 Group Statistics

	GENDER	N	Mean	Std. Deviation	Std. Error Mean
ASL	male	205	2.36	.654	.046
	female	205	2.43	.722	.050

Table 4.15:Independent Samples test for academic stress level based on gender

		Levene's test for equality of variances		t-test for equality of means	
		F	Sig.	T	Df
ASL	Equal variance assumed	3.988	.046	-1.004	408
	Equal variance not assumed			-1.004	404.130

The t-test presented in table 4.15 above indicates a significance level of 0.046 which is less than 0.05. The null hypothesis was therefore rejected meaning that there was a significant

difference in variance in the academic stress level among university students based on gender. This implied that gender determined academic stress level among university students. The female students had higher stress levels than the male students. This is because female students engage more in other activities such as domestic chores, hanging out with friends and leisure. This can make them unable to balance their use of time.

Table 4.16: Group statistics based on the type of University

VERSITY	N	Mean	Std. Deviation	Std. Error Mean
Private	108	2.46	.647	.062
Public	302	2.37	.702	.040

The table above shows that more respondents from public universities than from the private university. The mean for respondents from private universities was higher than that of respondents from the public universities.

Table 4.17: t-test for academic stress level based on the type of university

			Levene's test for equality of variances		t-test for equality of means	
ASL			F	Sig.	t	df
	Equal variance assumed		1.593	.208	1.193	408
	Equal variance not assumed				1.240	203.203

The test of significance was for academic stress level was done using t- test. There was no significant difference in academic stress level based on the type of university with $p = .208$ which is greater than alpha $.05$. This implied that academic stress level was not significantly influenced by the type of university.

Table 4.18: Descriptive for academic stress level based on the year of study

Year	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for		Mini mum
					Mean		
					Lower Bound	Upper Bound	
1	100	2.21	.782	.078	2.05	2.37	1
2	97	2.38	.699	.071	2.24	2.52	1
3	106	2.54	.604	.059	2.42	2.65	1
4	107	2.44	.632	.061	2.32	2.56	1
Total	410	2.40	.689	.034	2.33	2.46	1

Table 4.18 above describes the number of respondents according to the year of study and their means for the academic stress level as well as the standard deviations. The findings reflect shows that the mean range through the years of study. However the third years had the highest mean of 2.54 and the first years had the lowest with 2.21. The third year students had high levels of academic stress. The students in the other years had moderate levels of academic stress. This is because the students in the third have higher academic demands than the other years such as practical while the first years do not have heavy workloads as the students in the other years.

Table 4.19: One way ANOVA for academic stress level based on the year of study.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.809	3	1.936	4.178	.006
Within Groups	188.181	406	.463		
Total	193.990	409			

Anova test in table 4.19 above indicate that there was a statistical significant difference among students on the level of stress based on the year of study with $p = .006$ less than alpha .05. This implied that the year of study had a significant influence on the academic stress level. The university students' expression of academic stress significantly varied at different years of study.

Table 4.20: Academic stress level and age

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
below 20	89	2.26	.731	.078	2.10	2.41
21-25	271	2.44	.658	.040	2.36	2.52
26-30	41	2.39	.771	.120	2.15	2.63
above 30	8	2.25	.707	.250	1.66	2.84
Total	409	2.39	.689	.034	2.33	2.46

Table 4.20 above gives a description of academic stress level based on age. There was no much difference in the means across all the age groups. The age group of 21-25 had the highest mean for academic stress level of 2.44 and age above 30 had a mean of 2.25.

The table below presents an ANOVA test for academic stress level and age

Table 4.21: ANOVA for academic stress level and age

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.448	3	.816	1.728	.161
Within Groups	191.176	405	.472		
Total	193.623	408			

One way ANOVA test for academic stress and age shown in table 4.21 above point out that there was no significant difference in academic stress level on the basis of age with $p = .161$ greater than alpha 05. This meant that age did not have any significant influence on academic stress level. All the respondents irrespective of the ages experienced academic stress in more less the same way.

4.7.1 Responses based on academic stressors

This study also extended to an analysis of the response per item. There were 13 items of academic stress level. The academic stressors investigated among university students in Kenya fall into three categories, namely; slightly stressful, moderately stressful and highly stressful. The means (ASLI) of responses of each item and their standard deviation were analysed as presented in table 4.22 below.

Table 4.22: Response to academic stressors based on items

Stressor	N	Mean	Std. Deviation
1. Lack of books in the library	410	3.0	1.4
2. Inability to access internet	410	3.4	1.3
3. Low contact hours with lecturers	410	2.9	1.5
4. Beating deadlines for assignments	410	2.6	1.4
5. Congestion in lecture halls	410	3.6	1.3
6. Unclear lecture notes	410	3.1	1.4
7. Many assignments and term papers	410	2.5	1.4
8. When exams approach	410	2.9	1.3
9. Doing oral presentation	410	2.3	1.3
10. Understanding course content	410	2.3	1.3
11. Too many assessments are due	410	2.5	1.3
12. Rushed course content	410	3.5	1.3
13. Lack of feedback on previous exams	410	4.1	1.2
Valid N (list wise)	410	3.0	

ASLI is the academic stress level index on a 5-point scale

Table 4.22 above indicates that high stress among university students was caused by congestion in lecture halls and lack of feedback from previous exams. High stressors can result in distress and dysfunctional behaviour. The midpoint of the likert scale that was used in scoring the data is 3.0. This implies that the respondents had moderate academic stress level. The following stressors caused moderate stress; availability of books in the library, access to internet, contact hours with lecturer, deadline for assignments, lecture notes, approaching exams, too many assignments and course content. This implies that these stressors arouse optimum academic stress that appropriately challenges students to pursue fruitful academic activities. These were on inability to access internet, low contact hours, congestion in lecture halls, unclear lecture notes and rushed course content respectively. The respondents expressed moderate academic stress level on these items. Slight stressors were caused by many assignments, doing oral presentation and understanding course content. This can cause boredom among university students due to eustress.

4.8.0 Non-academic stress levels among university students based on demographics

The difference in the non-academic stress levels based on demographics was carried out. The demographics were gender, the type of university, year of study and age. Tests were carried out based on each demographic variable using two-way ANOVA for gender, type of university, year of study and age. The hypothesis was stated as follows;

HO₂ There is no significant difference in the non-academic stress level among university students based on the demographics

The hypothesis was tested using two-way ANOVA and findings are presented as shown in tables below

Table 4.23: ANOVA for non-academic stress level based on gender and the type of University

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	3.389 ^a	3	1.130	2.122	.097
Intercept	1628.083	1	1628.083	3057.891	.000
Gender	.053	1	.053	.099	.754
Varsity	2.308	1	2.308	4.334	.038
Total	2320.000	410			
Corrected Total	219.551	409			

The findings presented in table 4.23 above indicate that there was no significant variance in non-academic stress level based on gender since the $p = .754$ was greater than $.05$. The findings indicate that there was significant difference in non-academic stress level based on the type of university since $p = .038$ was less than alpha $.05$. This means that the respondents from private and public universities had significantly different levels of non-academic stress. This can be attributed to conflicts with parents and failure to get adequate attention from university staff.

The variance between non-academic stress level based on year of study and age are presented as follows;

Table 4.24: ANOVA for non-academic stress level based on the year of study and age

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	10.754 ^a	13	.827	1.569	.091
Intercept	278.191	1	278.191	527.612	.000
YEAR	5.903	3	1.968	3.732	.011
AGE	1.154	3	.385	.730	.535
YEAR * AGE	1.514	7	.216	.410	.896

The findings in table 4.24 above indicates that there was significant variance in non-academic stress level based on the year of study with $p = .011$ less than the alpha value of 0.05. Student at different years of studies experienced significantly different levels of non-academic stress. On the contrary the age did not have any significant influence on the stress level since the p value of .538 was greater than .05.

This study also sought to determine which non-academic stress item was considered the highest cause of non-academic stress. The questionnaire for non-academic stress had 14 items. The items that had higher means were considered the highest stress causing item.

4.8.1 Responses on non-academic stress items

There was also an analysis on how the participants responded to each item in the non-academic stress scale. The stressors investigated fall into the categories of high stress, moderate stress, and low stress. The measurement of the stressors was done on a 5-point likert scale with 3.0 as the mid-point. There were 14 items and the mean (NASLI) and

their standard deviations are as presented in table below responses for each item are indicated in table 4.25 below.

Table 4.25: Response to Non-academic Stress Level based on stressors

Stressor	N	Mean	Std. Deviation
1. Spending a lot of time with friends	410	3.0	1.4
2. Inability to get a room	410	3.2	1.5
3. Disagreement with roommate(s)	410	3.1	1.6
4. Interference by romantic relationships	410	3.1	1.4
5. Lack of conducive environment in the hostels	410	2.9	1.6
6. Insecurity in the campus	410	3.0	1.3
7. Lack of money to meet my needs	410	3.4	1.4
8. Poor relationship with parents	410	3.4	1.4
9. Engaging in small entrepreneur activities	410	3.3	1.4
10. Too much money to spend	410	2.8	1.4
11. Having health problems	410	3.0	1.3
12. Over engagement in leisure activities	410	3.1	1.4
13. Conflicts with parents	410	3.5	1.4
14. Lack of attention by university staff	410	3.6	1.5
Valid N (list wise)	410	3.2	

Table 4.25 above shows that conflict with parents and lack of attention by university staff were the main causes of high stress. These stressors are likely to cause distress to students and lead to dysfunctional behaviour. The moderate stressors included spending time with roommates, romantic relationships, hostile environment, security in campus, entrepreneur activities, lack of money, poor relationship with parents, too much money health

problems and engagement in leisure activities. There were no low academic stressors among the university students.

4.8.2The most stressful non-academic stressor

The non-academic stress had items that were not based on the likert scale. The respondents were required to select three items provided in the questionnaire that they considered the most stressful. All the responses were numbered, and their respective codes entered in excel spread sheet based on three developed codes; NON_ACA1, NON_ACA2 and NON_ACA3. Each code represented the first, second and third choices respectively. It was noted that among the responses, some students did not respond to the quantitative question which was open-ended. A total of 410 questionnaires were examined and the findings were analysed based on their responses on what they chose as the most stressful item. The findings are shown on figures 4.1, 4.2 and 4.3. The first choice had 154 responses; the second choice had 141 responses while the third choice had 123 responses. Thus, based on these figures, it was concluded that the most stressful non-academic stress was lack of attention by University staff, the second one was; insecurity in campus, and the third one was; lack of money to meet students needs. The bar graphs are as presented below.

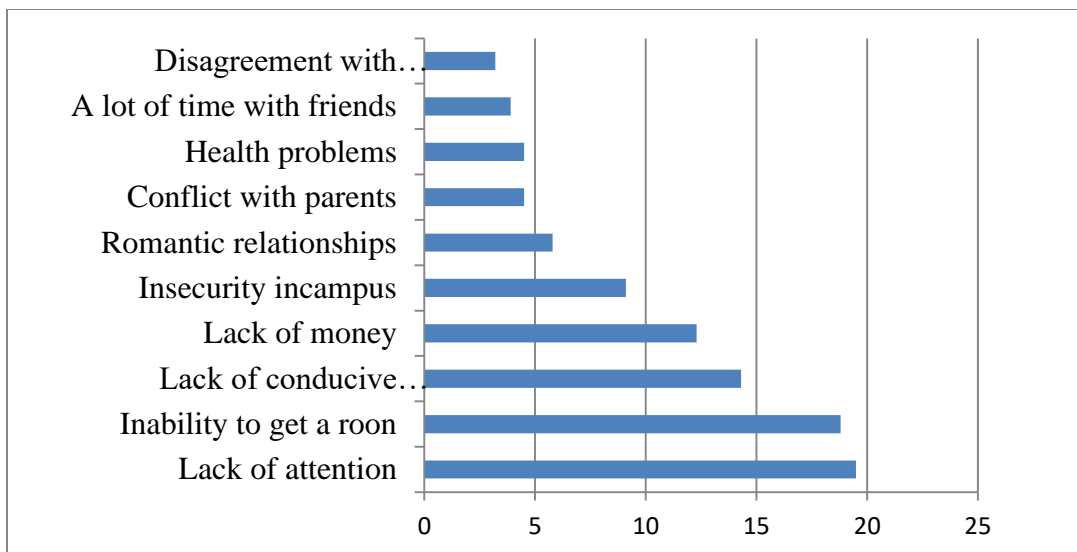


Figure 4.1: 1st Response on non-academic stress level

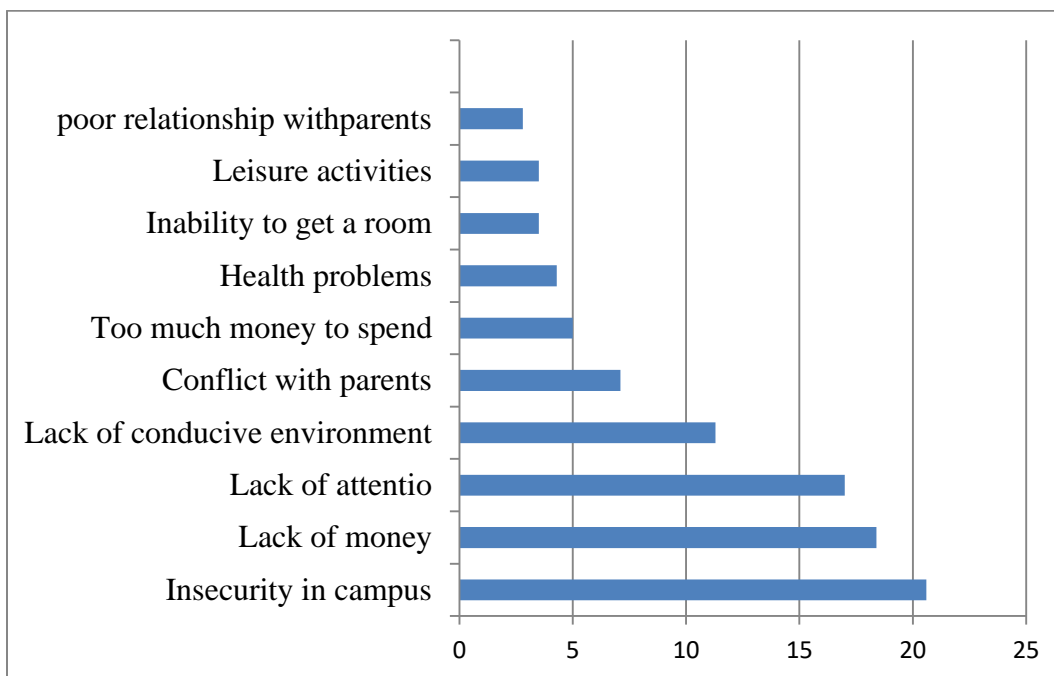


Figure 4.2: 2nd Response on non-academic stress level

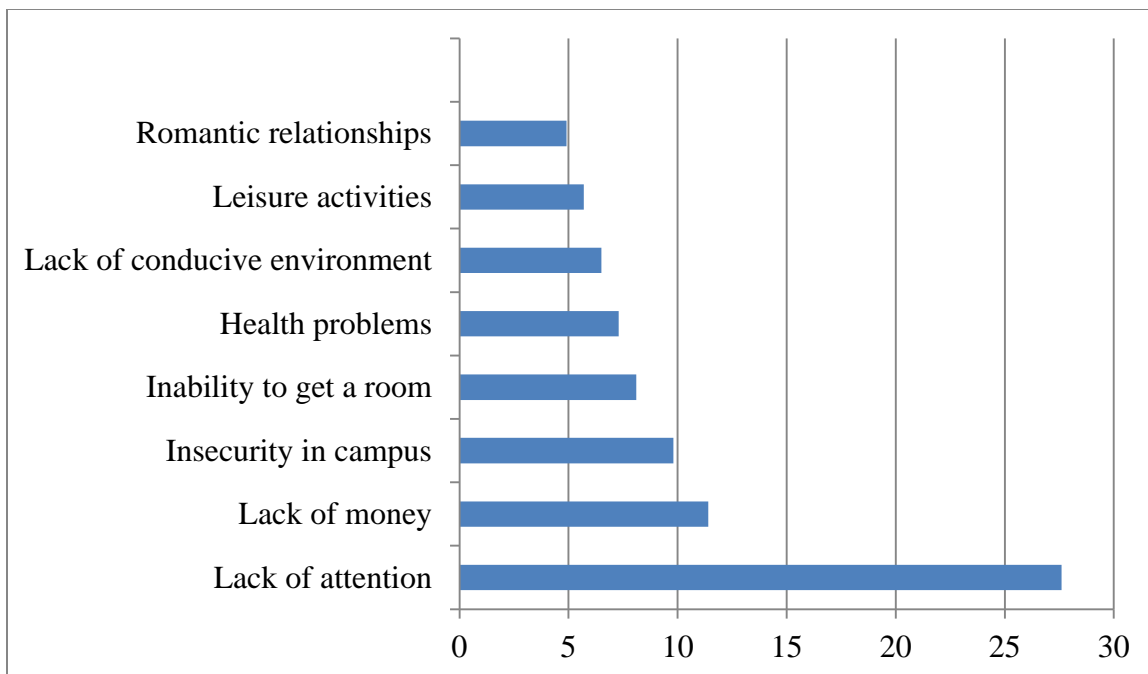


Figure 4.3; 3rd Response on non-academic stress level

Based on the findings presented in bar graphs, figure 4.1, 4.2 and 4.3 it was concluded that the highest stress causing items on non-academic stress level were; lack of attention by university staff (27.6%), insecurity in campus (20.3%) and inability to get a room (18.8%)

4.9.0 Exam Cheating Attitude

The study sought to find out the expression of exam cheating attitude among university students based on the demographics. This was done by stating and testing the null hypothesis below.

HO₃ There is no significant difference on exam cheating attitude based on demographics.

The hypothesis was tested using two-way ANOVA as shown in tables 4.26 below;

Table 4.26 Two way ANOVA Test for the Difference in Exam Cheating Attitude Based On gender and type of university

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	11.686 ^a	3	3.895	8.467	.000
Intercept	1458.928	1	1458.928	3171.045	.000
GENDER	.370	1	.370	.805	.370
VERSITY	10.231	1	10.231	22.238	.000
GENDER * VERSITY	.147	1	.147	.320	.572
Error	186.792	406	.460		
Total	1994.000	410			
Corrected Total	198.478	409			

a. R Squared = .059 (Adjusted R Squared = .052)

The test above indicated that there was no significant difference on exam cheating attitude towards exam cheating based on the year of study since p value of .370 was greater than alpha of .05. The test also indicates that there was a significant difference based on the university type with a significance level of .000 which was less than .05. The conclusion was that gender did not significantly influence the attitude held by university students but the type of university significantly influence the attitude the attitude towards exam cheating.

Table 4.27: ANOVA for exam cheating attitude based on the year of study and age.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	10.296 ^a	13	.792	1.667	.066
Intercept	223.065	1	223.065	469.406	.000
YEAR	.834	3	.278	.585	.625
AGE	1.288	3	.429	.903	.440
YEAR * AGE	4.045	7	.578	1.216	.293
Error	188.182	396	.475		
Total	1994.000	410			
Corrected Total	198.478	409			

a. R Squared = .052 (Adjusted R Squared = .021)

The findings for exam cheating attitude based on the year of study and age was not significant at .625 and .440 respectively. This implies that students at different years of study and age held relatively the same attitude towards exam cheating.

This study also sought to find which items had the highest mean on exam cheating attitude scale. The scale had 18 items. The findings are presented in table 4.28 below.

4.9.1 Responses based on exam cheating attitude

The research also looked into participants responses on each item on the exam cheating attitude scale. The attitude scale was clustered into three, positive attitude, ambivalent attitude and negative attitude. The scale had 18 items and the means and standard deviations for each item are as presented in table 4.28 below.

Table 4.28: Exam Cheating Attitude based on items

Exam Cheating Attitude	N	Mean(ECAI)	Std. Deviation
1. Frustration leads to cheating in exams	410	3.1	1.6
2. Copying in exam is common to everybody in campus	410	3.1	1.5
3. Exam is not easy thus the need to look for some way to cope	410	2.9	1.3
4. I don't find enough time to read, copying is necessary	410	3.2	1.4
5. Low performance in a previous exam necessitate cheating	410	3.6	1.5
6. Cheating in exam is necessary because some concepts are difficult	410	4.0	1.3
7. Using some cheating techniques is the only way to boost your grades	410	3.6	1.3
8. Missing classes necessitates cheating in exam	410	3.3	1.4
9. Lack of preparedness leads to insincerity in exams	410	2.9	1.6
10. Cheating in an exam occurs because of poor invigilation	410	3.4	1.6
11. It is necessary to use some dishonest method at some point	410	3.9	1.3
12. When unable to beat the deadline, present another person's work	410	4.1	2.8
13. The only way to deal with exam stress is to use some dishonest means	410	4.0	1.2
14. I usually become blank in exam therefore the need for a reminder.	410	3.8	1.4
15. Other people have leakages, why not me	410	3.6	1.4
16. I have to excel, so cheating is necessary.	410	3.4	1.3
17. You don't cheat, other people do it and they benefit	410	3.4	1.5
18. Exam is just too difficult, some reminder is necessary.	410	3.9	1.2
Valid N (list wise)	410	3.5	

Table 4.28 above shows that the examination cheating attitude index (ECA1) was 3.5 based on a five-point likert scale. The university students were uncertain about the issues that contribute towards exam cheating. The items that elicited uncertainty included frustration, copying of exams is a common practice, exams is not easy. Not finding enough time to read, missing classes, lack of preparedness, poor invigilation, lack of preparedness leads to insincerity, need to excel and others cheat and benefit. Positive contributors towards exams cheating attitude among education students included; low performance in previous exams, difficult concepts, to boost grades, it is necessary to cheat at some point, inability to beat deadline, the only way to deal with exams, becoming blank in exams, others have leakages and that exams is too difficult and therefore need for reminder. There were an equivalent number of items that caused uncertainty and positivity toward exam cheating attitude. There were no items that had means that could be ranked as negative attitude towards exam cheating.

4.9.2The most common causes of exam cheating

The most common causes of exam cheating was further investigated using closed ended questions not based on the likert scale but required respondents to respond in a particular direction. The students were asked to select only three items in the questionnaire that they felt were the most causes of exam cheating. The findings were presented as bar graphs as shown on figures 4.4, 4.5 and 4.6. Further analysis was done based on the items that were not based on the likert scale. These items required the respondents to state the item that they considered was the main cause of exam cheating from the likert items. The frequencies were taken based on which the items that were chosen as the leading. There were three main choices that were adopted depending on which item was presented as the

highest cause of cheating in exams. The first choice had 131 responses; the second choice had 123 responses, while the third choice had 107 responses.

It was noted that the first choice for exam cheating was; missing classes necessitates cheating in exams, the second choice was lack of preparedness leads to insincerity in exams, while the third choice was; you do not cheat, other people do it and they benefit.

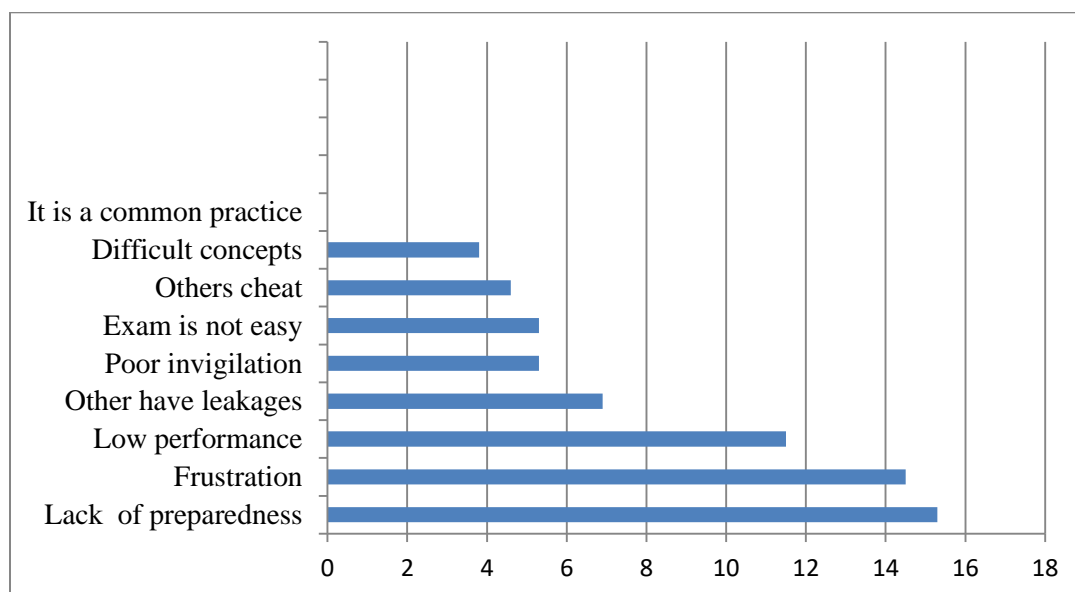


Figure 4.4: 1st response on attitude towards exams cheating

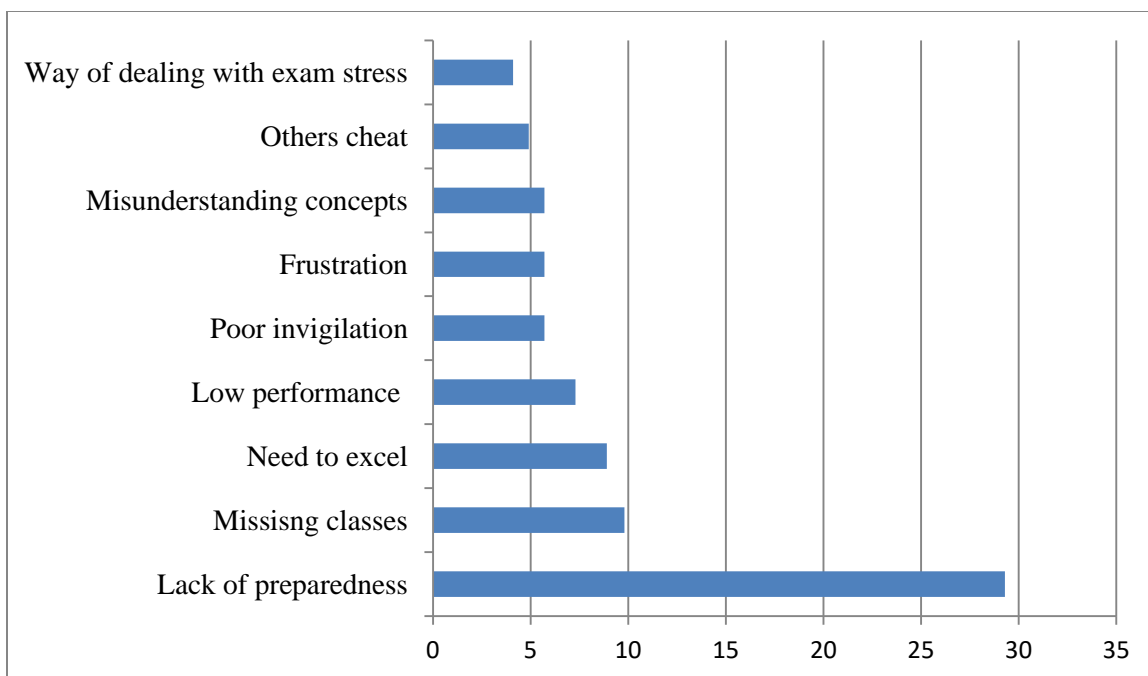


Figure4.5: 2nd Response on attitude towards exams cheating

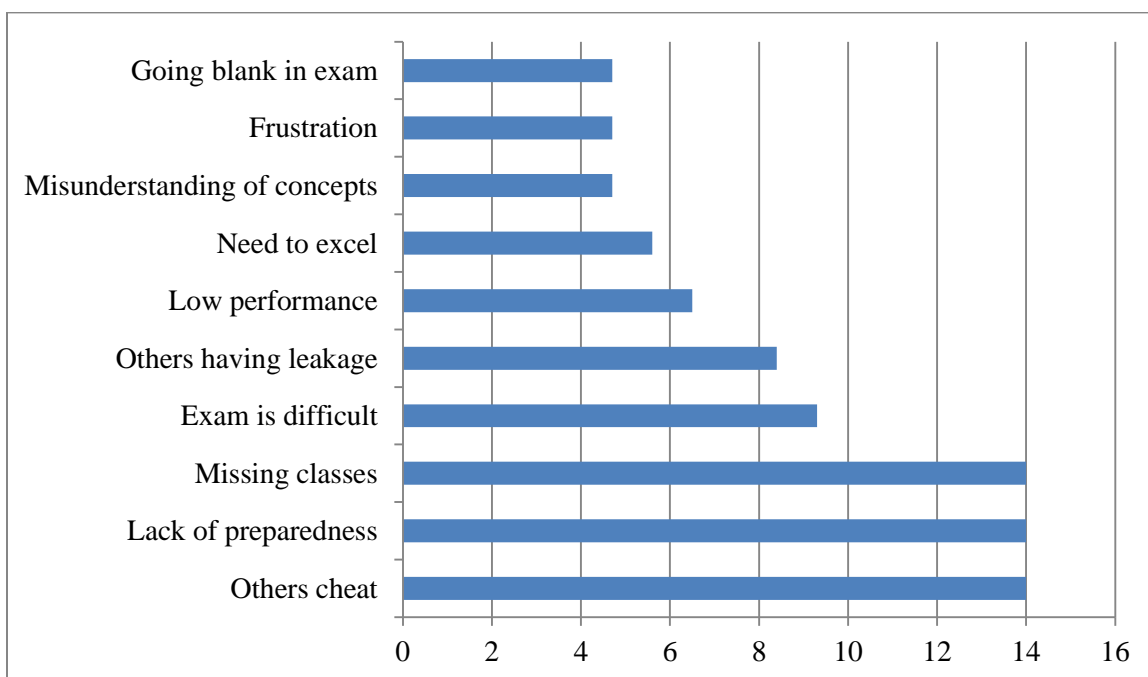


Figure 4.6: 3rd Response on attitude towards cheating in exams

The item causing the highest percentage on exam cheating attitude was “lack of preparedness leads to cheating (29.3%), missing classes (18.3 %) and frustration causes cheating” (14.5%).

The ECA questionnaire also had three more items that includes items 20, 21 and 22. The items sought to find out whether the respondents had engage insincere methods, have witnessed or whether they would engage in dishonesty. The responses for these items were on a YES or NO basis. Some chose not to respond to the section at all. The presentation of the same is as follows;

Table 4.29: Cases of dishonesty in exams

ITEM	YES	NO	NO RESPONSE
20. Used insincere method	199(48.5%)	168(41%)	43(10.5%)
21. Witnessed another person	283 (69%)	83 (20.3%)	44 (10.7%)
22. Would engage in cheating	167 (40.7%)	200 (48.8%)	43 (10.5%)

The result in table 4.29 above shows that a higher percentage agreed that they have used insincere methods than those who said NO. There were a very high percentage of those who said they had witnessed others engaging in dishonesty in exam at 69%. The number of those who said they had not witnessed was at 20 %. On item 21 a higher percentage responded that they would not engage in exam dishonesty as opposed to those who agreed to it.

4. 10 Relationship between Academic Stress Levels and Exam Cheating Attitude

The study sought to find out the relationship between academic stress levels and exam cheating attitude. The fifth hypothesis was stated and tested using Pearson correlation.

HO₄ There is no significant relationship between academic stress level and exam cheating attitude.

The table below presents the Pearson correlation for academic stress level and exam cheating attitude.

Table 4.30: Correlation between Academic Stress level and Exam Cheating Attitude

Correlations		ASL	ECA
ASL	Pearson Correlation	1	.340**
	<i>p value</i> (2-tailed)		< 0.001
	N	410	410
ECA	Pearson Correlation	.340**	1
	<i>p value</i> (2-tailed)	< 0.001	
	N	410	410

Notes: ** Correlation is significant at 0.001 level (2-tailed); the p value is estimated at 95% confidence level; ASL= academic stress level; and ECA=exams cheating attitude

The findings in table 4.30 above indicate that there was a significant correlation, $r = 0.340$ between academic stress level and exam cheating attitude and a p-value of 0.001 less than the alpha value of 0.05. It was therefore concluded that a perfect positive relationship existed between academic stress level and exam cheating attitude. This implied that as the higher the level of academic stress the more positive exam cheating attitude became. Respondents with positive exam cheating attitude were more stressed.

4.11 The Relationship between Non-Academic Stress Levels and Exam Cheating Attitude

The relationship between non-academic levels and exam cheating attitude was determined by stating the sixth hypothesis and was tested using Pearson correlation as shown in table 4.31 below.

HO₅ There is no significant relationship between non-academic stress levels and exam cheating attitude.

This hypothesis was also tested using Pearson correlation as shown in table 4.31

Table 4.31: Correlation between Non-Academic Stress Levels and Exam Cheating Attitude.

Correlations		NASL	ECA
NASL	Pearson Correlation	1	.240**
	<i>p value</i> (2-tailed)		< 0.001
	N	410	410
ECA	Pearson Correlation	.240**	1
	<i>P value</i> (2-tailed)	< 0.001	
	N	410	410

Notes: ** Correlation is significant at the 0.001 level (2-tailed); the p value is estimated at 95% confidence level; ASL= academic stress level; and ECA=exams cheating attitude

The Pearson correlation in table 4.31 above indicates that there was a positive correlation, $r = 0.240$ between non academic stress levels and exam cheating attitude with $p = 0.001$

less than alpha of 0.05. It was therefore concluded that there was a perfect positive significant relationship between non-academic stress levels and exam cheating attitude. It also meant that when the respondents with positive attitude towards exam cheating had higher levels of non academic stress.

A summary of the inferential statistics used to test the hypotheses are presented in table 4.32 below.

Table 4.32: Summary of Hypotheses Tests

Hypothesis	Main finding	Conclusion
HO₁	P= .046 < .05, .208>.05P = .006 <.05, .161>.05	Null hypotheses was rejected for gender and year of study and accepted for the type of university and age. It was concluded that gender and year of study had a moderating role in academic stress level
HO₂	P = .754> .05,.038<.05, .001 <.05, .528>.05	The null hypothesis was rejected for university type and year of study and was accepted for gender and age. It was concluded that the year of study and type of university had a moderating role on non-academic stress level
HO₃	P = .213 > .05, .001 < .05, .024 < .05, .090 > .05	The null hypothesis was rejected for the type of university and was accepted for the year of study, gender and age. It was concluded that the type of university and the year of study had a moderating role in exam cheating attitude
HO₄	P = .001 < .05	The null hypothesis was rejected and concluded that there was a significant correlation between academic stress level and exam cheating attitude
HO₅	P = .001 <.05	The null hypothesis was rejected and concluded that there was a significant relationship between non-academic stress levels and exam cheating attitude

4. 12.0 Discussion

4.12.1 Stress Levels

The first objective of this study was to investigate the influence of demographic factors on the levels of stress. Stress factors were thematically studied as academic stress and non-academic stress since there are many causes of stress experienced by students. The cognitive appraisal theory suggests that people make appraisals of events in their environment. University environment offer academic and no-academic experiences to students. Sometimes the experiences may be challenging and may be interpreted to some degree as stressful. Brand and Schoonheim-klein (2009) enhance that stress among under graduate and graduate students is multifactorial arising from academic and non-academic factors. Based on this premise stress factors were categorised into two as discussed below.

4.12.2 Academic Stress Levels

University students are in touch with their academic environment on a daily basis. They can judge the surroundings either as enormously stressful or not stressful at all. Individually students can also perceive stress differently and since it may be difficult to examine each individual, students were placed according to common characteristics such as gender, type of university, year of study and age.

This study found that a higher percentage of participants experienced high levels of academic stress as per the descriptive statistics based on gender. The descriptive indicate that there was a larger percentage of female with high stress than the male respondents. The t-test also revealed that there was a significant influence of gender on academic

stress. This confirms the statement of Misra, McKean, West and Russo (2000) that stress levels vary by gender of students. The findings concur with those of Misra and McKean (2000) found that female students were more prone to academic stress because of negative appraisal and focus on emotional feelings when experiencing a stressful event. On the contrary males are trained to display strength when undergoing challenges. Dahlin, Joneberg and Runeson (2005) also found that female students had higher ratings than male on four out of seven stress factors. Reddy, Menon and Thatti (2018) also found that academic stress differed significantly across gender with female students having higher mean on the same than the male students.

The year of study was found to have a significant influence on the level of stress with $p = .006$ less than $\alpha = .05$. This was an indication that university students in Kenya experienced different levels of stress at varied years of study. This agreed with the findings of a study among university students in Brazil by Carmo et al (2016). The study concluded that as the students advanced in their years of study their level of stressed went up. It was also in agreement with a study by Hamurcu (2018) who revealed that fourth-year students had higher expectations about their academic success and their life in the future and therefore, they experienced more severe educational stress. The study used subscale self-expectation which had items about hopes for the future, the finding is indicative of their stress and anxiety about their life in the future.

This study proved that age did not play a significant role in academic stress level among Kenyan university students. This is consistent with a research by Dahlin Joneberg and Runeson (2005) which established that age did not have any significant influence on stress levels. This means that students of different ages experience academic stress in

more less the same way. This differed with the findings of Morse and Dravo (2007) who found that younger students reported higher stress levels. This difference can be attributed to difference of study population, geographical setting and the time of the study.

This study also enquired into how individual items were responded to in the academic stress scale. There were four items that had the potential to cause moderate stress which included lack of feedback from previous exam, congestion in the lecture halls, rushed course content, inability to access internet, and unclear lecture notes, with means of 4.1, 3.6, 3.5, 3.4 and 3.1 respectively. The remaining nine items caused slight stress. However it does not indicate complete absence of stress. This finding agree with Karaman, Lerma, Vela and Watson (2019) contention that academic stress refer to factors in the academic environment such as course work, group project and organizational involvement. In this study those stress causing factors are closely related to the course work. Shannon, Bradley and Teresa (1999) found out that academic stress factors were the leading causes of stress among nursing students. Misra, McKean, West and Russo (2000) also informed that students reported experiencing academic stress from various academic related causes. Zeidner, (1999), Radcliff and Lester (2003) and Talib and Zaii-ur-Rehman (2012) also divulged that academic related factors were a major source of stress among university students. However these studies made specific reference to specific academic factors which were not same as those in this study. This can be ascribed to situational differences.

Findings of Dahlin, Joneberg and Runeson (2005) were that students in Sweden experienced the highest degree of pressure from studies. The study involved relatively

same years of study except with the difference of sixth year students. It also differed with the current study since that study involved medical students while this study involved bachelor of education students. However the overall academic stress level of students in Kenya is in the comfort zone.

This study has established that academic stress among undergraduate students in Kenya was at the comfort zone. However academic stress level differs across the demographic variables. According to gender it was found that astatistically significant difference existed between male and female students. It was also established that academic stress is not specific to the year of study. Academic stress was found to be higher in the third year of study than in the other years. There was no difference in academic stress on the basis of age and the type of university. Undergraduate students in Kenya are able to manage academic stress more comfortably except for some specific issues for instance lack of feedback from previous exam.

4.12.3 Non-academic stress level

Non-academic stressors are the factors that do not directly relate with academic environment but the effect can extend to academic matters. Some students for example fail to achieve their degrees because of unseen factors in the non-academic environment. Non-academic stress is reputed to discourage academic success thus heightening the academic stress and success. Ross, Niebling and Heckert (1999) corroborate that for college students intrapersonal, interpersonal and environmental factors have the potential to cause stress. This view bears assertion by Yet-mee, Cai-Lian and TeckHaena (2013) that the causes of stress among university students are multifactorial. They recognised that the causes of stress among Malaysian university students

could be attributed to their health status, financial and romantic relationships. Although their study focused on the same variable with the current study the locations of study differed. This could have given rise to situational differences. However the non-academic stressors examined are the same.

The findings of this study indicate that on average undergraduate students in Kenya reported moderate to high levels of non-academic stress level. On the basis of gender the findings indicate that there was almost the same percentage of male and female with high stress level of 43.9 and 42.9 percent respectively. Two way Anova test showed that there was no statistically significant difference in their level of stress. The percentage of students with high stress level was higher than those in moderate and low levels. However gender was not a predictor of non-academic stress level because male and female students in Kenya experienced moderate non-academic stress level. This can be attributed to the fact that students share same experiences in the non-academic environment. Misigo(2015) established that in public universities in Kenya, students experience lack of accommodation, insecurity in residential areas and relationship problems. This differed with the study of Achor, Crum and Salovey (2013) who found that females perceived more stress in interpersonal domain than males. In their study the domains relating to non-academic stress included parental expectations, sleeping difficulties and worrying about the future. The difference could be attributed to the methods and the study populations used.

In relation to stress level based on the type of university this study found that there was a significant difference non-academic stress levels between undergraduates in private and public university with $f = 4.334, P = 0.038, \alpha = 0.05$. A higher percentage of students from

private universities experienced high stress level in comparison with those in public universities. This could be attributed to the fact that students in private universities are self-sponsored and those in public universities are government sponsored. Those in private universities could also be struggling financially and with issues of accommodation since most private universities tend to have fewer hostels than public universities. However there has been no research to compare with the findings of this study in order to be in a perfect condition to determine where the differences stem from.

This study also established that the year of study also predicted stress level among university students. The third year students were more susceptible to non-academic stress than those in the other years. This was followed by the fourth year group. This suggests that as the students advanced in their academic ladder, non-academic stress increase. This gains the support of a United Kingdom (UK) research conducted by Andrews and Wilding (2004) who found that among UK students who had no psychological symptoms at the course, 9% entry became clinically depressive. It also recorded that 20% became clinically anxious by the mid-point of their degrees. The study found that financial stress and relationship difficulties were the main predictors of their depression and anxiety. The tendency of the students in the current study can also be attributed to the same factor. The status of university students in the UK and Kenya are not the same and neither were the methods of research but the findings tend to agree.

This study sought to bring to light the response of students per item on the non-academic stress scale. Stressors that led to high stress levels were lack of attention by university staff, and conflict with parents. The remaining stressors caused moderate stress level. This finding were in support of a study in the UK by Mclntyre (2018) which indicated

that financial, academic and social related stressors were the most common that students underwent. The study found that relationship stressors such as family, romantic, peer and faculty relationships were commonly reported as stress among university students. These findings are also in agreement with Thawabieh and Qaisy (2012) which designated stress to social circumstances among university students in Jordan. However there was a difference in the current study and the two previous studies. This is due to the fact that the samples of the study were drawn from different population and the areas of study also differ. This is important because different settings present different challenges. The study by Thawabieh and Qaisy (2012) focused on stress related factors relating to transition from high school to the university whereas this current study focused on student who were already in pursuance of their university education.

A further analysis was made to gain insight into the items that were considered most stressful by the respondents. Lack of attention by university staff, insecurity in campus and lack of money were found to be the highest cause of non-academic stress. This closely relates with the findings of Busari (2012) on a study among university students in Nigeria. The Nigerian study found significant difference between the male and female respondents on financial-related stressors. This corresponds with an earlier western Kenyan study which focused on non-academic stressors such accommodation, security in residential halls, relational problems and problems with roommates. The study found that these factors were the highest causes of stress among students of universities in western Kenya, (Misigo, 2015). The current study is in agreement with the latter study since it shares the accessible population. Correspondingly it also assessed both academic and non-academic stressors. The study gives a good comparison with this study thus bringing

to light that non-academic stressors has an impact on the student in universities of western Kenya. This is important since it leads to a better understanding of the non-academic factors affecting students in the area of study. This implies that the universities can give more attention to non-academic challenges facing students to allow them succeed socially and academically.

Non-academic stress level among Kenyan university students was moderate although some students experienced high stress. However there is a variation of expression of stress across the four demographic variables. Gender and age did not determine the level of non-academic stress. The year of study and the type of university had statistically significant influence on non-academic stress level.

4.12.5 Exam cheating attitude

Exam cheating attitude was the dependent variable in this study. This study sought to understand whether demographic variables had any influence on exam cheating. According to the theory of cognitive appraisal people make evaluations on the environment, (Lazarus, 1984). The theory further states that people make cognitive interpretation of the stressful situation. Hogg and Vaughan (2005) reinforced that the attitude-behaviour strength involves the personal relevance of the attitude to the individual. Ajzen and Fishbein (1977) assert that a number of situational variables also affect the strength of attitude-behaviour. Based on these assumptions this study sought to examine how gender, the type of university, the year of study and age influenced exam cheating attitude based on the moderating variables.

According to this study gender, the year of study and age did not have a statistically significant influence on the attitude of students towards exam cheating. These moderators were weak predictors of attitude towards exam cheating. This implies that the university students in Kenya expressed almost the same attitude towards exam cheating students irrespective of gender, year of study and age. This contradicts the study by Hardigan (2004) which established that female and older students had a more conservative attitude towards exam cheating. This difference can be attributed to the difference in time populations from which the samples were drawn.

The findings of this study show that there was a significant difference in attitude towards exam cheating based on the type of university. With regard descriptive statistics, there were a higher percentage of students with a positive attitude towards exam cheating in private than in public universities with 42.6% and 24.5 % respectively. This finding contrasts with those of Gudo, Olel and Oanda (2011) in which there were slightly higher incidences of cheating among students from public than from private universities in Kenya. This contrast can be ascribed to the dissimilarity of time as developmental aspects are bound to occur. Most students in private universities in Kenya have lower entry points than those in public universities. Previously, there was no provision for government support for student in private universities. These factors could have pushed students in private universities to develop a more positive towards exam cheating to enable them match with those in public universities. Most employers also factor degree classifications and this may push those in private universities to measure up.

This research also sought to find out which items contributed highly to exam cheating attitude. The students had positive and ambivalent attitude towards exam cheating. This

demonstrates that the attitude of university students towards exam cheating ranged from ambivalent attitude to positive attitude. This can lead them to engage in dysfunctional behaviour with special consideration to examination practices.

The respondents were also required to indicate three leading items towards exam cheating. Respondents gave varied reactions towards the item. A pattern following which item appeared more frequently was followed. Lack of preparedness for exams reported the highest ECAI while other items with higher indices included missing classes, frustration, others cheat and low performance. In the same way Ahmed (2018) found that one of the causes of cheating among Umma University in Kenya was inability of students to be keen with their studies which agrees with the findings of this study in which students attributed cheating to lack of preparedness. Both of this student share the same target population. This is significant since it confirms the existence of a positive attitude towards exams cheating. This explains why examination cheating prevalence is high among university students in Kenya. Shu (2012) found that a greater degree of cheating acceptance among students who had read the honor code increased after participating in the study than they had prior to the experiment. The same study established that, while those who read the honor code were less likely to cheat, the honor code did not eliminate all of the cheating. According to Starovoytova and Namango (2016) exam cheating is influenced by multiple factors which can be treated as situational, contextual and individual

The questionnaire also contained three items that sought to establish the extent of dishonesty in exams. Item 20 which sought to uncover whether the respondents had used insincere method. The end result was that a higher percentage of those who

agreed(48.5%) to have engaged in dishonesty higher than those who said they have not(41%). This confirms that there is an existing engagement of exam cheating practices among university students in Kenya. However it is important to note that this is not an isolated case as Anderman and Murdock(2007) found that out of 285 middle school students 42.7 % admitted to have cheated among those considered cheating acceptable. Koenka and Anderman (2019) reiterate that college students were more likely to cheat and to believe in the acceptability of cheating. Out of many possible reasons the kind of attributions students make contributes to students' acceptability to cheat in exams.

There were a high percentage of those who said they had witnessed others engaging in dishonesty in exam at 69%. The number of those who said they had not witnessed was at 20 %. This indicates that exam cheating among university students is highly witnessed. This trend tallies with the findings of a study of university students in Nigeria by Ajaja (2012). The study found that 53 % of the students involved reported that they had cheated at some point.

On item that required the respondents to state whether they would cheat if given the chance, 48.8% agreed that they would not and 40.7 % said YES. This signify that students may not be very willing to engage in exam cheating attitude but the circumstances around them may influence their tendency of cheating in exams. Conditions such as exam stress, poor invigilation and lack of preparedness for exams bring an intricate to the situation.

4.12.6 Relationship between levels of stress and exam cheating attitude

The main objective of this study was to investigate the relationship between the levels of stress and exam cheating attitude. This was accomplished by correlating academic and non-academic stress levels and the attitude towards exam cheating attitude separately. A study by Goodmonson and Glaudin (1991) was carried out between the behaviour of participants and organ transplant. The study found out that there was a relationship between attitude towards organ transplant and behaviour. McLeod (2014) reinforce that attitude predict behaviour. Based on this assumption this study sought to find the relationship between the levels of stress and attitude towards exam cheating. The correlation was broken down as presented below.

4.12.7 The relationship between academic stress level and exam cheating attitude

Pearson correlation was applied and it was established that there was significant correlation between academic stress level and exam cheating attitude of $p = .001$. This supports the contemplation by Eagly and Chaiken (1993) and McLeod (2014) that attitude does not correspond with behaviour but it cannot be denied that it predicts behaviour. Eagly and Chaiken (1993) assert that the stronger an attitude the more likely it should affect behaviour. A closer research on stress and job attitude by Kumar and Singh (2009) indicated that an increase in stress level is associated with the attitude towards job satisfaction. The research differed with the present one since it correlated stress level with job satisfaction while the present research correlated with attitude towards exam cheating. However the basic line was that both sought to find the correlation of attitude and stress level and the findings are relatively the same. Pascoe, Hetrick and Parker (2019), Wang et al (2015) and Putwain (2009) also examined the relationship between academic stress and

other academic variables such as lower grades, learning attitudes, exam anxiety and motivation. These studies indicated that there was a positive correlation between those variables and academic pressure. This implies that academic pressure affects view that students take towards examinations.

4.12.8 The relationship between non-academic stress level and exam cheating attitude

The relationship between non-academic stress level and exam cheating attitude was also established through Pearson correlation. The result was that there was a significant positive correlation of .001. There is very little that has been done to correlate exam cheating attitude and stress. Most of the research and reports that have been done about exam cheating focus on the prevalence of exam cheating, trends in exam cheating and methods used in cheating. For instance Ibia (2006), Khan and Kan (2011) observed the methods that were used in cheating. A study close to the current one was conducted among education students of Delta State University in Nigeria but diverted from this study because it enquired whether students had cheated at some point in high school (Ajaja 2012). A report by Akinyi (2017) and a study by Ahmed (2018) both focused on the methods that were used by students to cheat in exams at Moi University and Umma University respectively.

4.13 Summary

The purpose of this chapter was to analyse and present the findings of the study. Descriptive statistics were used to describe the variables of the study. The findings showed that although the academic stress level index was the same for male and female student the latter had a higher percentage of those experiencing high stress. Those in

private universities, third year students, and those in the age bracket of 26-30 also experienced higher academic stress level. Generally university student in Kenya experience high academic stress level. Male and female students did not differ in the level of non-academic stress. Students in private universities experienced higher non-academic stress level than those in the public universities. The third year students also had higher non-academic stress level than any other year. All age brackets experienced moderate non-academic stress level. This study also found that female students had a higher tendency of cheating in exams than male students and the same applied to students in private universities. Third years and those in age bracket above 30 years also had a higher tendency towards exam cheating.

There were five hypotheses tested using t-test, one-way ANOVA, two-way ANOVA, and Pearson correlation. Inferential statistics indicated that there was significant statistical difference in academic stress level between male and female students. The third year students also experienced significant high academic stress level than the other years. The findings also indicate that non-academic stress level was significantly determined by the type of university and the year of study. It was also found that there was no significant difference in the exam cheating attitude based on gender the year of study and age students but there was a significant difference in the exam cheating attitude based on the type of university. The students generally expressed an ambivalent attitude towards exam cheating. Pearson correlation showed that academic and no-academic stress level significantly influenced the attitude held by university students towards exam cheating.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RCOMMENDATIONS

5.1 Introduction

This chapter entails the summary of the findings, the conclusions, the recommendations and suggestions for further study have been made.

5.2 SUMMARY OF THE FINDINGS

Based on the discussion in previous chapter the following conclusions have been made;

The first objective investigated academic and non-academic stress levels among university students based on gender, type of university, the year of study and age. The study found that academic stress level among undergraduate students in Kenya was generally moderate. Gender and year of study significantly influenced academic stress level. Female students were more vulnerable to high academic stress than the male students. This can be attributed to differentiated perception of stress in male and female students. Males and female students differ on how they appraise their academic challenges. Female students can be given more awareness on stress and be equipped with more coping mechanisms. This study also established that third year students had higher academic stress level than the other years. By their third year of study in most universities in Kenya, Education students engage more in practical work thus increasing their workload. This could place a higher academic demand on students requiring them to take individual responsibility. At this stage students may also get more concerned with their course work as the realities of future profession dawns on them. This therefore implies that students should be given clear timelines on their academic activities. High stress can

be detrimental to their examination behaviour since this study has proved that a significant relationship exists between stress level and exam cheating attitude. Course work cannot be reduced nor can stress be eliminated but if students are properly guided to be more responsible towards their academic work, stress levels can be brought to an optimum level. However there is limited research basing academic stress on the year to enable a conclusive comparison.

Although students from private universities expressed higher academic stress level than from public universities, there was no significant influence by the type of university on academic stress level. However there is need to investigate the factors leading to higher academic stress level with the aim of curbing it in private universities.

This study also assessed the level of Non-academic stress level as part of the first objective. It established that gender did not significantly influence non-academic stress level among university students. Though students experienced high non-academic stress level in relation to gender, but generally there was a moderate non-academic stress level across all groups. Maintaining a moderate stress level is important because it can help students sustain optimum stimulation and can make them live a more positive live especially with regard to their exam practices.

This study also found that university type and year of study significantly influenced non-academic stress level. Students in private universities had higher non-academic stress levels than those in the public universities. It would be expected that those in public universities would be more stressed because of the large numbers but on the contrary was uncovered. The problems could emanate from their social and financial challenges since

most of them are on self sponsored programmes. There is necessity to look more into the main sources of non-academic stress among students in private universities.

The third year students seem to be the most vulnerable group in comparison with the other years because they had significantly high academic and non-academic stress levels. Academic work as well as social responsibilities of this group could be higher. As much as they are more conversant with university requirements more attention can be paid to them by university staff as well to enable them withstand their stressful conditions. This is a crucial time at which students are being acquainted with realities of their careers and therefore close monitoring can help time maintain their stress levels at the comfort zone.

Participants were asked to rank what they considered as the highest cause of stress the following were stated as the highest indices of NASLI non-academic stressors; lack of attention by university staff, insecurity in campus, financial needs, and inability to get a room. These issues require closer attention in order to get a clearer understanding of the nature of the problem.

The second objective investigated the exam cheating attitude based on gender, type of university, year of study and age. The result established that the respondents generally had an ambivalent attitude towards exam cheating. This study established that there was no difference in attitude towards exam cheating between male and female students. Although this was so, female students had a higher tendency towards exam cheating than the male students. This can be attributed to their higher academic stress level. Focus can be directed towards gender issues so the challenge of higher academic stress level and tendencies of cheating could be reduced among female students. There was a significant

difference in the attitude held by students in private and public universities with a higher percentage of students from private universities possessing a positive attitude towards exam cheating than those in public universities.

The third objective of this study was to investigate the relationship between the levels of stress and exam cheating attitude. Academic stress level was correlated using Pearson correlation which revealed that there was a significant correlation between the academic stress level and exam cheating attitude. Although the attitude of students towards exam cheating attitude was ambivalent there was a significant relationship between stress levels and exam cheating. This implies that undergraduate students attribute their exam cheating attitude to stress levels. There is scanty evidence on previous research in support the findings of the current study but inferences can be made from cognitive appraisal that when persons are faced with stress people can come up with thoughts or images about how to counter their stressful circumstances. This finding is important since it has shown that a relationship exist between stress and attitude. Attitude is formed in the mind as a way of solving academic challenges. This finding is also justified by attribution theory which stipulates that people seek to justify events by assigning meaning to certain factors. This study has proved that university students seek to justify their stressful events by assigning a positive attitude towards exam practices.

5.3 Conclusions

This study arrived at the following conclusions based on the findings;

It was concluded that university students in universities in western Kenya experienced moderate academic stress level but clear differences in academic stress level were

observed on the basis of gender and the year of study. It was also concluded that the students experienced moderate non academic stress levels but the students in private universities and in the third year of study expressed higher levels. The year of study was a strong determinant of the levels of stress.

This study also concluded that university students had an ambivalent attitude toward exam cheating. The type of university was a determining factor. The study also concluded that there was a positive correlation between the levels of stress and examination cheating attitude.

5.4 Recommendations

This study has shown that the levels of stress are generally high among students in Kenya. Stress may not be eliminated and certain levels of stress are necessary. Deliberate effort should be made to constantly create awareness on causes and effects of stress to students to all university students. This can be done by injecting life skills education into the normal university curriculum. This will help students deal with academic stress and other emerging issues in the modern world. Female mentorship programmes could also be introduced to help the female student to cope with stress. Female students have unique challenges that are different from those of the male students.

This study found that academic stress was determined by the year of study with third year students being more susceptible to academic and non academic stress than any other year. It is therefore imperative that universities should ensure smooth transition so as to reduce the advancing stress level trend. This can be achieved by schools should give consistent attention towards strengthening ability to address the needs of students. These

include improving the relationship between university staff and students as this was considered one of the causes of academic stress among the students. Schools should establish efficient digital communication system for instance updated loading of marks since lack of feedback on previous exams was found to be one of the causes of stress among students. This will help to fasten delivery of feedback on previous exams which was proved to be one of the major causes of academic stress.

Exam cheating is a common culture across many institutions of learning. This is mainly influenced by the attitude towards exam cheating attitude. Addressing the attitude can help to curb exam malpractices. Psychological adjustments can be addressed by departments of guidance and counselling through seminars and workshops. Proper attitude can also be shaped through continuous effort giving clear expectations of the courses by lecturers. This can be more achievable if class sizes are reduced so that the lecturer can easily be able to identify those who may be having tendencies of cheating in exams. This can help students understand the expectation of the courses they are undertaking and this will eventually shape the attitude that students have towards exam cheating.

This study also found that a positive correlation exists between the levels of stress and examination cheating attitude. Reducing the levels of stress can help in adjusting the attitude held by students towards exam cheating. The departments of Guidance and counselling can conferences aimed at addressing stress management.

5.5 Suggestion for further study

This study suggests that the following studies should be conducted to compare and fill the gaps that were not address in this study.

- i. This study was also not able to determine the different causes of variation in academic stress level between male and female students and therefore further research can be directed towards establishing why female students tend to have higher stress levels.
- ii. A study can also be carried based on the years of study to determine why students tend to have higher levels of stress towards the end their university education.
- iii. More research can be done on the impact of stress on exam cheating attitude towards examination among university students in Kenya.
- iv. Research can also be carried out to understand the different challenges facing students in private universities.

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APPENDICES

Appendix I: Students' Questionnaires

Dear Participant,

I appreciate your acceptance to respond to this questionnaire. The main purpose for this is to collect data for my research and the findings will be used to make recommendations to your university in accordance with the findings. Please respond to the following items with honesty. The information you give will be treated with confidentiality and respect. Please don't indicate your name. Your participation is voluntarily.

There are 3 sections to this questionnaire; sections 1, 2 and 3. Please respond to the items in all the sections as much as you can. Indicate your response in the space provided as per the instructions.

Thank you for your acceptance to participate.

Section 1: Demographic Data

Gender: male [] female []

Type of university: public [] private []

Year of study: 1[] 2[] 3[] 4[]

Age in years: below 20 [] between 21-25[] between 26-30 []above 30[]

Section 2: Academic Stress Level Scale

Indicate your response to the following 13 statements by ticking on the boxes provided.

Your response indicates how STRESSFUL you feel about the situation. NS means No Stress, SS - slight stress, MS - moderate stress HS - high stress and ES - extreme stress.

Stressor	NS	SS	MS	HS	ES
1. Lack of books in the library.					
2. Inability to access internet.					
3. Low contact hours with lecturers.					
4. Beating deadlines for assignments.					
5. Congestion in lecture halls.					
6. Unclear lecture notes.					
7. Many assignments and term papers.					
8. When exams approach.					
9. Doing oral presentation.					
10. Understanding course content.					
11. Too many assessments are due.					
12. Rushed course content.					
13. Lack of feedback on previous exams.					

Section 3: Non-academic Stress Level Scale

Respond to the following 14 items using the same criterion as in section 2

STRESSORS	NS	SS	MS	HS	ES
1. Spending a lot of time with friends.					
2. Inability to get a room.					
3. Disagreement with roommate(s).					
4. Interference by romantic relationships.					
5. Lack of conducive environment in the hostels.					
6. Insecurity in the campus.					
7. Lack of money to meet my needs.					
8. Poor relationship with parents.					
9. Engaging in small entrepreneur activities.					
10. Too much money to spend.					
11. Having health problems.					
12. Over engagement in leisure activities.					
13. Conflicts with parents.					
14. Lack of attention by university staff.					

15. From the above items you have responded to, list any three items you consider most stressful beginning with what you find to be the most stressful by indicating the number of the item in the spaces below

-----, -----, -----

APPENDIX II: Exam Cheating Attitude

Please respond to the statements below by stating whether you strongly agree (SA), agree (A), undecided (U), disagree (D) or strongly disagree (SD) with the statements

STATEMENT	SA	A	U	D	SD
1. Frustration leads to cheating in exams.					
2. Copying in exam is common to everybody in campus.					
3. Exam is not easy thus the need to look for some way to cope.					
4. I don't find enough time to read, copying is necessary.					
5. Low performance in a previous exam necessitates cheating.					
6. Cheating in exam is necessary because some concepts are difficult.					
7. Using some cheating techniques is the only way to boost your grades.					
8. Missing classes necessitates cheating in exam.					
9. Lack of preparedness leads to insincerity in exams.					
10. Cheating in an exam occurs because of poor invigilation.					
11. It is necessary to use some dishonest method at some point.					
12. When unable to beat the deadline, present another person's work.					
13. The only way to deal with exam stress is to use some dishonest means.					
14. I usually become blank in exam therefore the need for a reminder.					
15. Other people have leakages, why not me.					
16. I have to excel, so cheating is necessary.					
17. You don't cheat, other people do it and they benefit.					
18. Exam is just too difficult, some reminder is necessary.					

19. From the items you have responded to mention any three items you consider as the most common causes of cheating by indicating the number. -----, -----,-----

20. Have you ever used any insincere method in exam at any point?

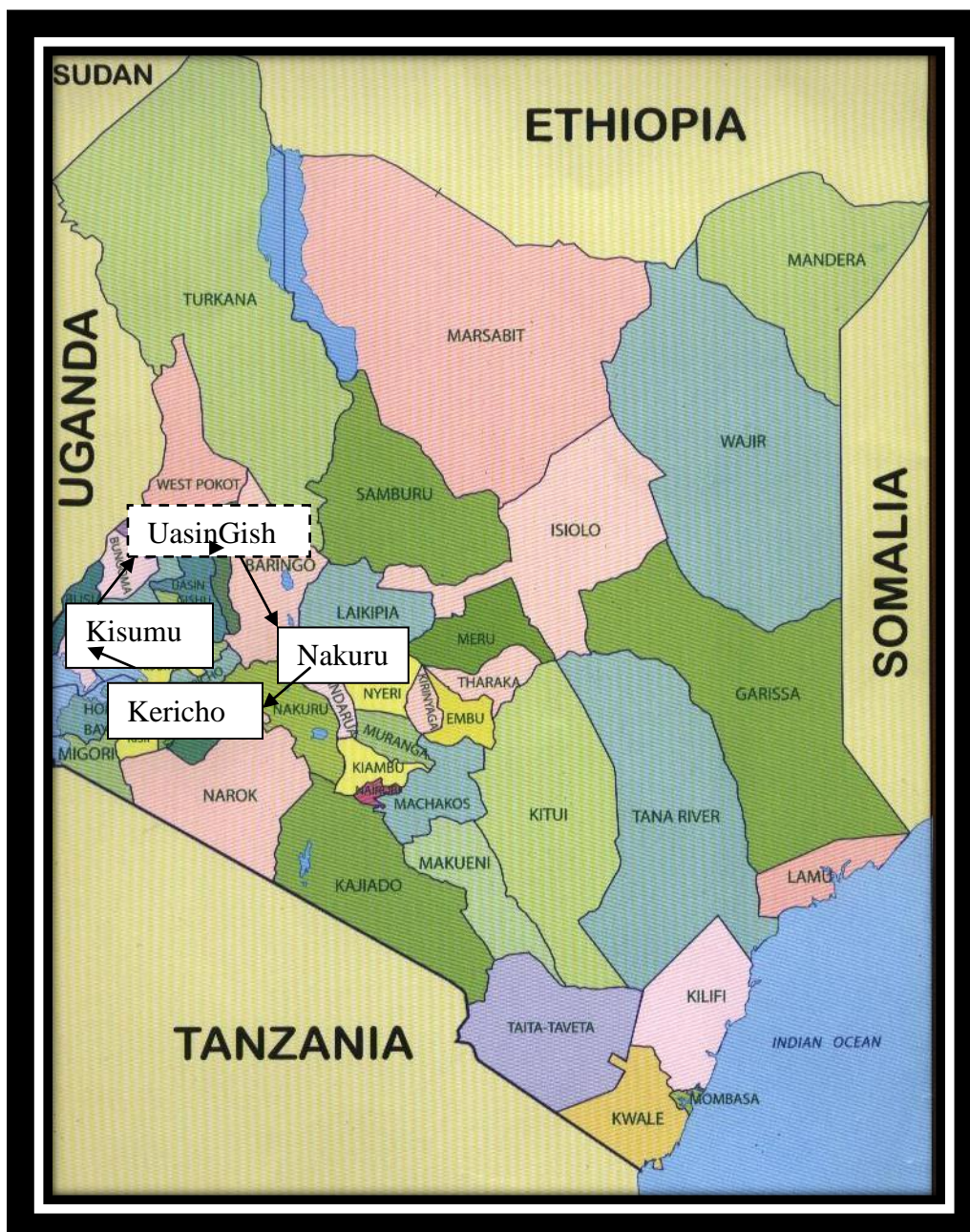
Yes [] No []

21. Have you ever witnessed another person being dishonesty in exams? Yes []

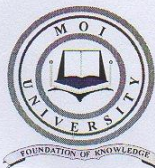
No []

22. Would you engage in dishonesty if given the chance? YES [] NO []

APPENDIX III: Map of Kenya



APPENDIX IV : RESEARCH PERMIT



MOI UNIVERSITY

Office of the Dean School of Education

Tel: (053) 43001-8

(053) 43555

Fax: (053) 43555

P.O. Box 3900

Eldoret, Kenya

REF: EDU/D.PHIL/PGP/1001/15

DATE: 14th February, 2018

The Executive Secretary

National Council for Science and Technology

P.O. Box 30623-00100

NAIROBI

Dear Sir/Madam,

RE: RESEARCH PERMIT IN RESPECT OF CHEMUTAI
BEATRICE LAIGONG - (EDU/DPHIL/PGP/1001/15)

The above named is a 2nd year Postgraduate Higher Degree (PhD) student at Moi University, School of Education, Department of Educational Psychology.

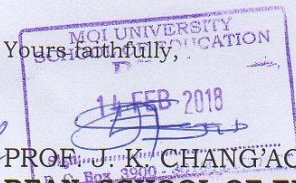
It is a requirement of her PhD Studies that she conducts research and produces a dissertation. Her research is entitled:

“The Relationship Between the Levels of Stress and Attitude Towards Exam Cheating among University Students in Kenya.”

Any assistance given to enable her conduct research successfully will be highly appreciated.

Yours faithfully,


PROF. J.K. CHANG'ACH
DEAN, SCHOOL OF EDUCATION



APPENDIX V: RESEARCH AUTHORISATION



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 3310571, 2219420
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Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/18885/25940**

Date: **1st November, 2018**

Beatrice Chemutai Laigong
Moi University
P.O Box 3900-30100
ELDORET

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“The relationship between the levels of stress and attitude towards exam cheating among university students in Kenya”* I am pleased to inform you that you have been authorized to undertake research in **selected Counties** for the period ending **30th October, 2019**.

You are advised to report to **the Vice Chancellors of selected Universities, the County Commissioners and the County Directors of Education of the selected Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.


BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Vice Chancellors
Selected Universities.

The County Commissioners
Selected Counties.

APPENDIX VI: RESEARCH LICENSE


THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

REPUBLIC OF KENYA



NACOSTI
National Commission for Science, Technology and Innovation

RESEARCH LICENSE

Serial No. A 21601

CONDITIONS: see back page

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Email: dg@nacosti.go.ke, registry@nacosti.go.ke
Website: www.nacosti.go.ke

THIS IS TO CERTIFY THAT:

MS. BEATRICE CHEMUTAI LAIGONG
of MOI UNIVERSITY, 0-30100
ELDORET, has been permitted to conduct research in **Kakamega, Kericho Kisumu, Uasin-Gishu Counties** on the topic: **THE RELATIONSHIP BETWEEN THE LEVELS OF STRESS AND ATTITUDE TOWARDS EXAM CHEATING AMONG UNIVERSITY STUDENTS IN KENYA** for the period ending: **30th October, 2019**

Permit No. : NACOSTI/P/18/18885/25940
Date Of Issue : 1st November, 2018
Fee Received : Ksh 2000



Applicant's Signature

Director General
National Commission for Science, Technology & Innovation