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**Relationship between Student Mental Health and Academic Achievement in
Secondary Schools in Samburu County, Kenya**

By

Peter Kiawa Musau

Reg No: 125670



Master of Science in Educational Management

2023

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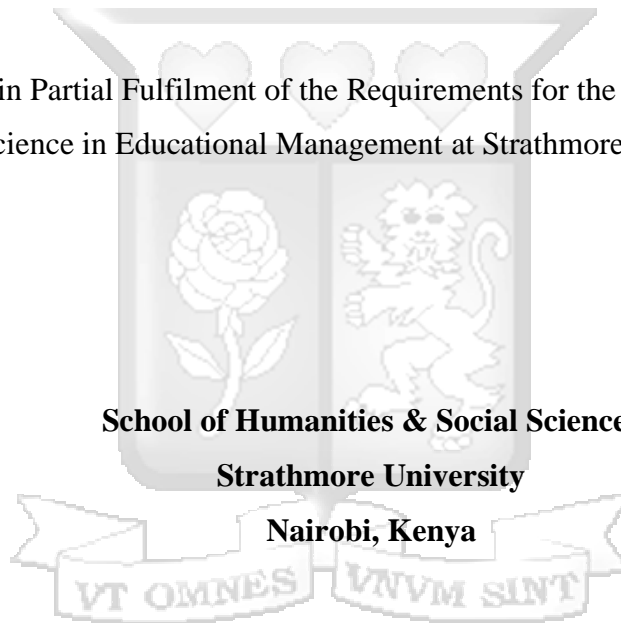
Reg No: 125670

Submitted in Partial Fulfilment of the Requirements for the Degree of Master of
Science in Educational Management at Strathmore University

School of Humanities & Social Sciences

Strathmore University

Nairobi, Kenya



July 2023

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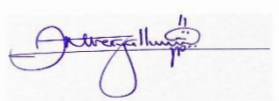
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ABSTRACT

Samburu County's land disputes, interethnic violence, cattle rustling, human-wildlife conflict, chronic food insecurity, gender-based violence, marginalization, poverty, and retrogressive cultural practices affect the residents negatively. As a result, the mental well-being of the county's youth, especially those in secondary school, suffers. This study sought to establish the relation between academic achievement and student mental health in secondary schools in Samburu County. The researcher utilized ecological systems and cognitive theory for this study. The study utilized mainly positivist philosophical position. The population of the study included twenty principals and fifty-two guidance and counselling teachers from secondary schools within Samburu County. The researcher obtained both quantitative and qualitative data by utilizing a questionnaire and an interview guide. Qualitative data was analysed through thematic analysis. The study also employed descriptive analysis utilizing measures of central tendency. Additionally, inferential statistics were utilized to demonstrate the relationship between the independent variable of mental health and the dependent variable of academic achievement. A correlation analysis was performed to determine the strength of the relationship. The results of the study revealed presence of anxiety disorders and depression among the students in the schools, which influenced their academic achievement. The severity of depression symptoms was found to be directly proportional to the extent of academic underperformance among the students. The study also shed light on the prevalence of social connection disorders among the students, which were found to have a significant impact on academic achievement. Moreover, the study found that self-esteem issues among the students were also prevalent and had a significant influence on their academic achievement. The study recommends that schools should promote positive peer relationships and encourage students to build supportive social networks. Schools should also initiate mental health screening programs to identify students who may require additional support.

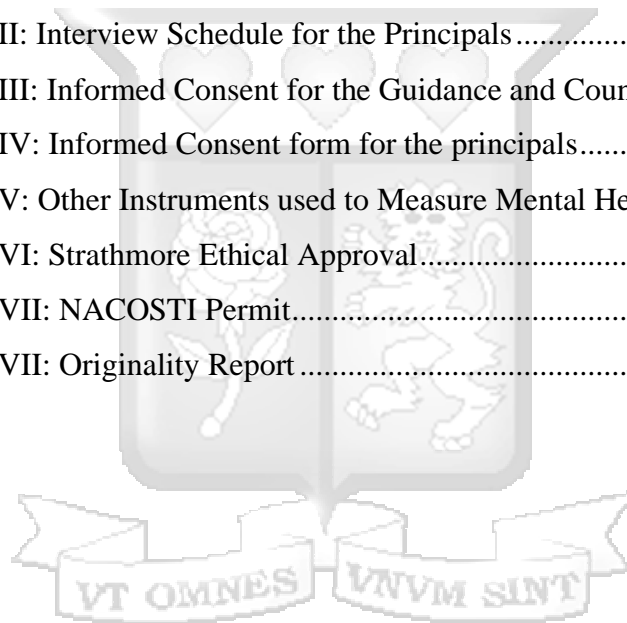
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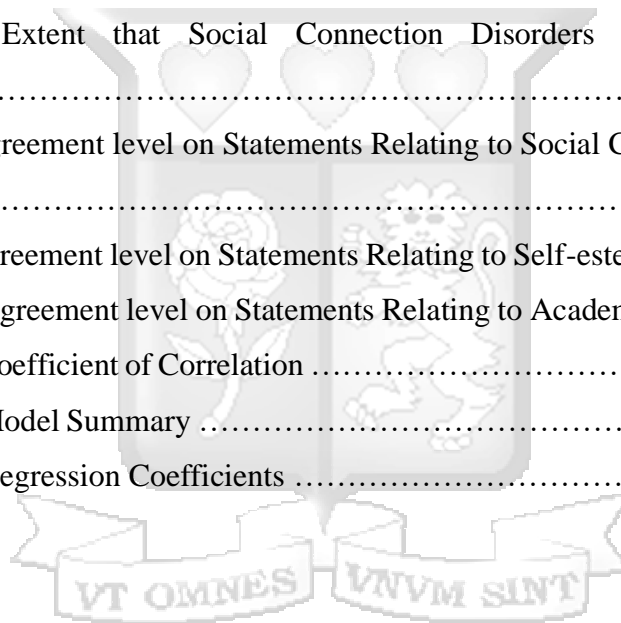
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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
BFLP	Big Fish Little Pond theory
GPA	Grade Point Average
KCSE	Kenya Certificate of Secondary Education
MOE	Ministry of Education
NACOSTI	National Commission for Science, Technology, and Innovation
NGOs	Non-governmental Organizations
SPSS	Statistical Package for Social Scientists
WHO	World Health Organization



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Ad Maiorem Dei Gloriam.

DEDICATION

To the Church

For this coveted opportunity to empower me in my pastoral duties and service to God.

To my mother

For her unwavering support throughout my studies at all levels.

To all my siblings

For their encouragement, support and understanding.

To all my friends for spurring me on.

To my supervisor

For his prayers, commitment, understanding, sacrifice, faith, and guidance in academic discourses.



DEFINITION OF KEY TERMS

Academic achievement: The level of attainment of a student in achieving academic goals, whether they are short-term or long-term.

Anxiety disorders: An emotional condition in which an individual experiences persistent and intense feelings of concern, apprehension, or dread, which significantly disrupt their normal daily functioning.

Depression: A mental health condition identified by a persistent low mood or a lack of interest in activities, which leads to significant impairment in daily functioning.

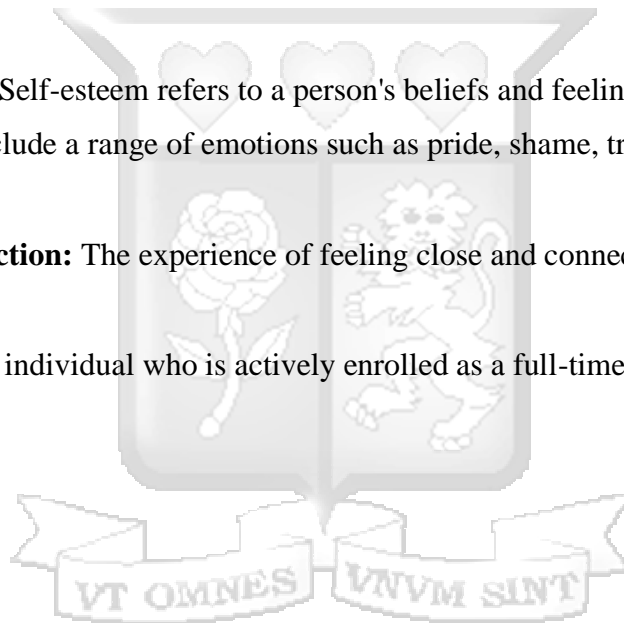
Self-esteem: Self-esteem refers to a person's beliefs and feelings about themselves, which can include a range of emotions such as pride, shame, triumph, and despair.

Social connection: The experience of feeling close and connected to others.

Student: An individual who is actively enrolled as a full-time student in a secondary school

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The main aim of this study is to establish the relationship between student mental health and academic achievement in secondary schools in Samburu County. This chapter is an introduction of the study which starts by giving the background information relating to the topic, the statement of the problem, the objectives of the study, scope, significance, and limitations of the study.

1.2 Background to the study

1.2.1 Global dimension of student mental health

According to the World Health Organization (WHO) (2022), mental health is defined as a condition of well-being of the mind that enables individuals to manage pressures of life, utilize personal strengths, achieve good academic and work performance, while making positive contributions to their community. According to WHO report on Adolescent Mental Health (WHO, 2021), approximately 13% of the world's burden of disease among 10–19-year-olds is attributed to mental disorders. This data means that one out of every seven individuals in this age group experiences such disorders on a global scale. This concurs with the findings of Anderson, et al., (2018) that 10% to 20% of children and adolescents worldwide are estimated to experience a mental health issue. The WHO report on Adolescent and Young Adult Health (WHO, 2022) indicates that approximately 16% of the burden of disease and injury affecting individuals between the ages of 10 and 19 can be attributed to mental health conditions on a global scale, indicating an increase in percentage from the previous 13%. Unfortunately, this increase implies that mental health does not receive much attention.

Upadhaya, et al., (2017) found that mental health is not given much attention in some parts of the world, such as Nepal, where only 1% of the health budget is spent on mental health despite the 3% budget allocation. Meanwhile, studies conducted in Canada and USA by Polaha, Dalton, and Allen (2017) suggest that mental health is a significant public health concern among secondary school students, particularly adolescents who make up the largest population.

In the USA, mental health of adolescents, who are secondary school students, has attracted considerable attention, because of a dramatic upward trend in suicides (Bisson, 2017). According to a study by Bitsko, et al. (2022), approximately one-fifth of adolescents in the USA are impacted by a mental health issue, making it a larger burden of disease than any other health condition. Mental health problems have been associated with lower academic self-efficacy and hindered academic progress, although the underlying mechanisms are not fully understood (Eisenberg, Hunt & Speer, 2018).

According to Fernández-Castillo and Rojas (2019), depression and anxiety are commonly found among secondary school students and have been associated with academic achievement in Spain. Students who have experienced mental health issues, whether they have been treated or not, tend to have lower GPAs and are more likely to drop out of school. Furthermore, students with mental health problems may face a higher risk of developing long-term mental disorders due to delays in developing the necessary skills for a successful life.

1.2.2 Regional (African) dimension of student mental health

In sub-Saharan Africa, Osagiede, et al. (2018), found that 9.5% of children and adolescents are affected by psychiatric disorders. Nigeria, which is the most populous country in Africa, is also facing a mental health crisis like other developing countries that are grappling with mental health issues. This is because developing nations like Nigeria spend little to nothing on mental healthcare. As a result, the nation's population suffers. About 40 percent of Nigeria's population, which is two hundred million, is affected by a mental illness (WHO, 2016). In Nigeria, mental illness is a significant contributor to poor academic performance and school dropout rates. It also poses a significant burden of disease. Currently, 80% of Nigerian students do not receive necessary treatment to alleviate identified symptoms, and 99% of them lack mental health awareness (Eaton et al., 2018). In developing countries like Nigeria, there is increasing global evidence indicating a detrimental cycle between mental illness and low educational attainment. This cycle exacerbates the probability of mental illness among individuals residing in poverty.

Around 20% of children and adolescents in South Africa have experienced mental health challenges in the form of behavioural, emotional, and social difficulties (Shochet, et al., 2020). These issues lead to academic underachievement and have an adverse impact on the quality of life of the child. In South African schools, mental health issues are often characterized by violence, gang membership, and aggression. Depression is a significant cause of self-harm and suicidal behaviours among adolescents. The studies suggest that around 21.4% of South African school-going teenagers have attempted suicide at least once (Thapar, Cooper, & Rutter, 2017).

1.2.3 Kenyan dimension of student mental health

Kenya was ranked fifth among African countries with the highest number of depression cases in the 2017 WHO report on the global mental health situation (WHO, 2017). Studies have shown that the prevalence of mental health issues among children and adolescents in schools in Kenya ranges from 10% to 50.5% (Magai, Malik, & Koot, 2018). In response to the severity of the mental health situation, the government of Kenya established a mental health task force in November 2019 through the Ministry of Health (MoH). The task force is responsible for evaluating current mental health systems in Kenya, including the legal, policy, and administrative frameworks, to identify areas that require reform to improve mental health services.

According to the report, Kenya was one of the 28% of WHO member states that lacks a separate budget for mental health. The public spending on mental health accounted for just 0.01% of overall spending. The report also demonstrates the extensive infrastructure inadequacies in the field of mental health. For instance, only twenty-nine out of the 284 Level 4 hospitals, or just 0.7% of the facilities, offer mental health care services. This is despite the country having a Mental Health Policy (2015-2030) that provides a framework. The framework directs mental health reforms to ensure that everyone has access to thorough, integrated, and high-quality mental health treatment that is promotional, preventative, curative, and rehabilitative at all levels of healthcare. Kenya faces legislative challenges that prevent the effective implementation of current mental health regulations, resulting in a gap in mental health treatment that is constantly expanding. This gap is directly connected to the study's need to investigate the correlation between academic achievement and student mental health in secondary schools in Samburu County.

According to Muthoni (2019), there is a lack of mental health programs for students due to inadequate funding for health. This makes it hard to deal with cases of mental health disorders among the students. This is especially significant in remote and low-income societies and areas such as Samburu County, where there are few socioeconomic opportunities and inadequate resources to support innovation and enterprise among the youths (Wawa, 2019). Students in Samburu County are particularly affected by land disputes, interethnic violence, cattle rustling, and conflicts involving humans and wildlife (Amref, 2018). These challenges have the potential to affect the mental well-being of the county's students. Additionally, according to Amref Health Africa (2018), Samburu County has the second highest FGM prevalence rates in Kenya at 86% after Marsabit County at 91.7%.

1.3 Problem statement

The lack of mental health awareness, inaccessible mental healthcare, negligible allocation of funds, and failure by the government to enforce the existing mental health policies are highlighted as current challenges. These challenges intensify mental health's persistence as a health care burden in Kenya. The highlighted challenges are collated through failure at various levels of care and governance. The effects trickle down to the country's population increasing the prevalence of mental health cases in Kenya. Secondary school students are not exempted from these effects. More specifically, the circumstances of students in Samburu County may mean different experiences in mental health care. The need to provide a clear demonstration of the connection between mental health and academic performance necessitates this study. Such results will be critical for governance and policy making leading to the improvement of mental health care among secondary students in Samburu County.

1.4 Objectives of the study

1.4.1 General objective

The general objective of the study was to investigate the relationship between student mental health and academic achievement in secondary schools in Samburu County, Kenya.

1.4.2 Specific objectives

- i. To establish the relationship between anxiety disorders and academic achievement in secondary schools in Samburu County
- ii. To evaluate the relationship between depression and academic achievement in secondary schools in Samburu County
- iii. To determine the relationship between social connection disorders and academic achievement in secondary schools in Samburu County
- iv. To assess the relationship between self-esteem disorders and academic achievement in secondary schools in Samburu County

1.4.3 Research questions

- i. What is the relationship between anxiety disorders and academic achievement in secondary schools in Samburu County?
- ii. What is the relationship between depression and academic achievement in secondary schools in Samburu County?
- iii. What is the relationship between social connection disorders and academic achievement in secondary schools in Samburu County?
- iv. What is the relationship between self-esteem disorders and academic achievement in secondary schools in Samburu County?

1.5 Scope of the study

The study was conducted on the relationship between student mental health and academic achievement in secondary schools. Specifically, the study focused on anxiety disorders, depression, social connection disorders, and self-esteem disorders and how they influenced academic achievement. The study focused on all the four variables to identify the level of significance of each variable to academic achievement through regression analysis. The study was conducted in all the fifty-two secondary schools located in Samburu County. The study involved twenty principals for the qualitative data collection and fifty-two guidance and counselling teachers for the quantitative data collection. The researcher compared theoretical perspectives proposed by different scholars with practical experiences through conducting interviews. This resulted in obtaining reliable information suitable for the study. Finally, the researcher drew conclusions and made recommendations based on the findings.

1.6 Significance of the study

The government and education policymakers can use the findings of this study to develop effective policies aimed at improving guidance and counselling services in secondary schools. By equipping students with life skills needed to address today's challenges, the mental health of students could be improved. The information generated from this study will be beneficial to teachers and parents in guiding students to develop coping strategies and addressing mental health concerns, thereby enabling students to achieve their full academic potential. The study shall provide guidance and counselling departments with insights on how to develop effective intervention programs to support students' mental health needs. For instance, counsellors can develop targeted programs that address specific needs of students struggling with mental health issues.

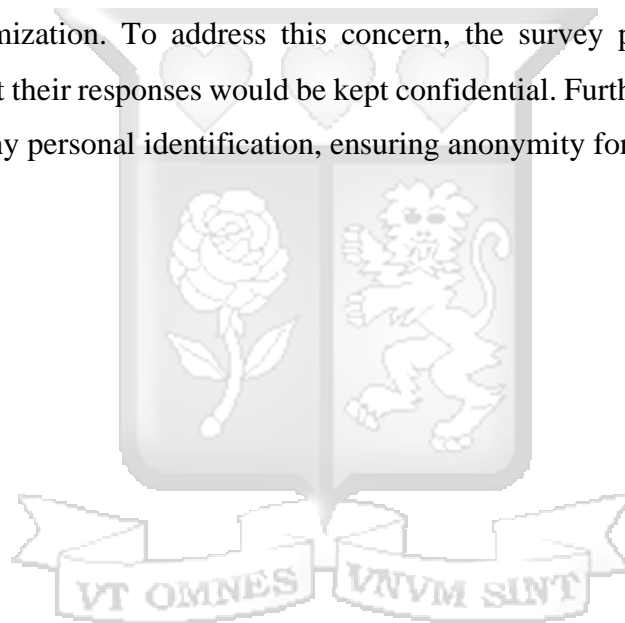
The students will be furnished with information from the findings of this study, which will help them understand the importance of mental well-being in their pursuit of academic excellence. Additionally, future researchers seeking to do further studies on mental health and its influence on academic achievement will find this study useful since it would become part of the existing literature.

1.7 Study area

Samburu County is a semi-arid area of northern Kenya. Its land mass is approximately 21,065.1 sq.km straddling the Rift Valley; bordering Turkana County to the West, Laikipia and Isiolo to the Southeast, and Marsabit to the North. Samburu County is inhabited majorly by the Samburu, Turkana, Pokot. These communities are historically pastoralist groups who depend heavily on livestock as their main source of livelihood, even though recently some of them are slowly embracing agropastoralism and semi-nomadism especially in the peri-urban areas. Other communities such as the Kikuyu, Kamba, Luo, and Meru are mostly found in urban centres engaging in trade, commerce, and employment in government offices. The County experiences a severe lack of rain, which has worsened with climate change and influenced a severe lack of water accessibility, worsening food insecurity, and heavy strain on citizens' livelihoods (RI, 2020). Wright (2019) notes that since colonial times, the northern part of Kenya has experienced administrative neglect based on the perception that it is difficult to control.

1.8 Limitations

The study was limited to secondary schools in Samburu County. The findings may therefore not be generalized to other counties in the country. The study also had theoretical limitations evidenced in the use of Bronfenbrenner's (1979) ecological systems theory because it does not show how individuals through cognitive processes appraise stressors in the ecological environment and develop coping mechanisms to overcome the stressors. The study thus turned to Lazarus' (1974) cognitive theory of stress as a response to the limitations of Bronfenbrenner's ecological systems theory. Confidentiality, which was an overly sensitive matter at the workplace, might have made some of the respondents to be reluctant to provide the necessary information for fear of victimization. To address this concern, the survey participants received a guarantee that their responses would be kept confidential. Furthermore, the survey did not require any personal identification, ensuring anonymity for all respondents.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, the literature review regarding the correlation between academic achievement and mental health was presented. Specifically, the views of other authors on anxiety disorders, depression, social connection disorders, and self-esteem disorders and their effect on academic achievement were highlighted. The chapter also includes a theoretical review, conceptual framework, and an identification of the research gaps that this study aimed to address.

2.1.1 Concept of mental health

Zhao et al. (2021) state that mental health is crucial to an individual's well-being and the successful operation of a community. It involves not just the lack of disease or disability, but also physical, psychological, and social wellness. According to Bisson (2017), the lack of this well-being in adolescents is manifested in the form of anxiety disorders, low self-esteem, depression, lack of social connection (Legesse, 2017).

Anxiety is a type of emotional and behavioural disorder that exhibits differently among children and adolescents. Anxiety can have a negative impact on the overall well-being, social life, academic performance, and ability to develop social skills (Bisson, 2017). Depression is characterized by persistent feelings of hopelessness, sadness, and emptiness throughout most of the day, and is often accompanied by a lack of interest in activities. Many of the symptoms associated with depression can negatively impact academic performance. For example, difficulty sleeping, and feelings of fatigue can make it challenging to attend or stay focused during classes, while persistent sadness and lack of interest may hinder a student's ability to retain information and perform well in their studies.

Having positive social interactions, engaging in social relationships, feeling accepted by others, and being accepted by peers are all important aspects of social connection that play a significant role in the socio-emotional development and well-being of children. Babirye (2019), asserts that social anxiety manifests in students with low academic achievement levels. On the other hand, self-esteem is significant in psychological disorders. It is considered a fundamental human need, as it is necessary

for motivation. Self-esteem enhances human morale by creating a positive self-image and attitude. Tayag and Gonzales (2021), postulate that self-esteem predicts academic achievement.

2.2 Mental health in Kenya

An assessment of life and socioeconomic resources in northern Kenya illustrates the huge significance of environmental and socioeconomic status factors in the mental health and academic performances of youths in Samburu County (Aworu, 2018). Due to this neglect, the region lags in economic development relative to the country's south. Non-governmental organizations, especially Christian NGOs, have represented the main source of support and services to residents in the region to fill the void left by the government (Wright, 2019). The key areas of aid from NGOs in the region are food and education. Nonetheless, this aid is incompatible with the pastoralist lifestyle of residents because the apportionment of aid occurs at fixed distribution points. These conditions support the evaluation that youths in the county have few socioeconomic opportunities and inadequate resources to support their innovation and enterprise.

Numerous studies have illustrated the close relationship between poverty and marginalization and the development and prevalence of mental health problems (Baah et al., 2019; Knifton & Inglis, 2020). Priebe et al. (2012) observe that mental disorders are more prevalent and severe in socioeconomically marginalized groups relative to the general population. Elliott (2016), notes that mental illnesses and poverty are often consequences of each other. The development of mental health problems is often dependent on the socioeconomic and physical environments of the lives and experiences of individuals.

Samburu County population is at a higher risk of mental health problems owing to its greater exposure and vulnerability to unfavourable socioeconomic and environmental circumstances relative to the general population. The experiences of poverty and marginalization in the County are likely to promote significant prevalence and severity of mental health problems among secondary school students in the County. These experiences are likely to promote significant levels of stigma, trauma, and social stresses and hence undermine psychological wellbeing and outcomes among the students.

2.3 Empirical review

2.3.1 Anxiety disorders and academic achievement

In Texas USA, Bisson (2017), conducted a study on how anxiety disorder affects the academic performance of college students, which was based on Erikson's (1966) Theory of Psychosocial Development. To investigate the correlation between academic performance and anxiety disorder, a multiple linear regression was conducted on a group of 93 Abilene Christian University students. The data was collected through an online survey. According to the findings of the study, the impact of anxiety disorder on academic performance was not statistically significant. Bisson (2017) found that students who struggle with emotion regulation, such as difficulty managing anxiety or frustration, struggle to focus on their schoolwork. Strong emotions also interfere with memory consolidation, making it more difficult for students to retain information that they have learned. Furthermore, emotional distress leads to absenteeism, poor attendance, and difficulty engaging in classroom activities. As a result, students who struggle with emotionality have lower academic achievement.

Similarly, Legesse (2017) conducted research at Addis Ababa University Institute of Technology in Ethiopia to investigate the connection between anxiety and academic performance. The study drew on the cognitive-interference theory, which focuses on the attentional demands of anxiety, the cognitive system, and the negative effects of self-related cognitions on performance. A mixed methods approach was used to gather and analyse data, with 221 final year engineering students participating in interviews. The Pearson product-moment correlation test and one-way ANOVA were used to analyse the data. The results indicated that university students' anxiety was significantly and inversely correlated with their academic performance. According to the findings by Legesse (2017) students' anxiety disorder was characterized by skills deficit. Students who had deficits in skills such as reading, writing, or math struggled with academic achievement. These skills are foundational to academic success, and if a student lacks proficiency in these areas, they have difficulty with more advanced coursework. Legesse (2017) additionally established that students who struggled with skills deficits had lower self-esteem and self-efficacy related to academics, leading to disengagement or avoidance of academic tasks.

Gichohi (2019) also conducted research on how anxiety disorders affect the academic performance of students enrolled at The Technical University of Kenya. The study collected data from 357 students and utilized a quantitative methodology, including basic analytical techniques such as mean, standard deviation, and percentages. The results showed that higher levels of anxiety disorders decreased the likelihood of students achieving academic success. The study concluded that there is a significant negative correlation between anxiety disorders and academic achievement. Gichohi (2019) further established that students who struggled with concentration had difficulty staying focused during class, completing assignments, and studying for exams. This led to incomplete or low-quality work, missed deadlines, and poor grades. Additionally, students who had trouble concentrating struggled with organization and time management, making it difficult to balance academic and non-academic demands.

2.3.2 Depression and academic achievement

Khurshid, et al., (2015) conducted research on the impact of depression on the academic performance of college students in Rawalpindi, Pakistan. The study was based on Hans Selye's General Adaptation Syndrome and focused on female students attending government colleges in the city. Second-year students were selected using a simple random sampling technique, and two questionnaires were used to collect data. Analysis of the data was performed using Chi-Square and paired sample t-tests, which revealed that depression has a harmful effect on students' academic performance, resulting in a negative correlation between the two variables. Khurshid, et al., (2015) further established that students who experienced a general sense of discontent struggled to feel motivated and engaged in their academic work. They experienced a lack of interest in their coursework or would feel apathetic towards their academic goals. This led to poor attendance, a lack of participation in class, and low grades. Additionally, general discontent contributed to feelings of hopelessness or helplessness, which further impacted academic achievement.

Khadijatu, Ikume, and Saanyol (2018) also conducted a study on the connection between depression and academic performance among undergraduate students at Benue State University Makurdi, Nigeria. They utilized a survey approach and selected a sample of 150 participants for the study. The data was analysed using

Pearson Product Correlation Movement, independent t-test, and descriptive statistics. The results indicated a significant negative correlation between depression and academic performance, as revealed by the Pearson correlation. Moreover, the study found no significant difference in depression levels between low and high-income earners.

Khadijatu, Ikume, and Saanyol (2018) further found that some students experienced irritability which made them struggle to manage their emotions in the classroom, leading to disruptive behaviours that interfered with their own learning and the learning of their peers. They also struggled with maintaining relationships with teachers and classmates, leading to a lack of support, and potentially worsening academic performance. Additionally, irritability contributed to difficulty with concentration and attention, making it harder to stay engaged in classroom activities and complete assignments.

Additionally, Bitew and Birhan (2020) also did a study on how depression impacts the academic performance of students in higher educational institutions in Northwest Ethiopia. Their research utilized cluster sampling to collect cross-sectional data from 710 pre-engineering university students in the region. The study employed multivariable linear regression to determine whether depressive symptoms could predict academic outcomes. The results indicated that there was a connection between depressive symptoms and perceived difficulties in learning. The study concluded that depression significantly affected academic achievement among the students.

Wawa (2019) conducted research on the occurrence and socio-demographic factors related to depression among students enrolled at the Kenya Methodist University. The study was designed as a cross-sectional survey and used stratified random sampling to select a sample size of 404 students. Data was collected using a socio-demographic questionnaire created by the researcher. The findings of the study revealed a high incidence of depression among university students. The results also indicated that certain socio-demographic factors, such as illicit drug use, self-financing, and poor academic performance, were linked to depression among the students. This led to suicidal thoughts leading to suicide attempts. Wawa (2019) further found that students who had attempted suicide required extended absences from school, missed important

exams or assignments, and struggled with returning to a normal routine. Additionally, they experience ongoing emotional distress, such as depression or anxiety, which makes it difficult to engage in academic work and maintain academic progress.

2.3.3 Social connection disorders and academic achievement

Tayag and Gonzales (2021) explored the impact of social anxiety disorders on the academic performance of college students in the United States. The research was based on the Social Learning Theory, which suggests that individuals can learn and modify behaviour. The study adopted a quantitative approach, using existing social anxiety scales to assess the students' anxiety levels via email and social media platforms. A sample of 213 college students who had completed at least their bachelor's degree was selected for the study. The results of the analysis did not support the hypothesis that social anxiety has a significant effect on academic performance among college students. Specifically, the study found no correlation between social anxiety and college students' academic performance.

On the other hand, Ibiene (2018) investigated the impact of social anxiety disorder on the academic performance of undergraduate students at a university in Nigeria. The research was based on Social Learning Theory and employed the descriptive survey design. The study selected a sample of 320 university undergraduates using a simple random sampling technique. The results of the study showed that social anxiety disorder had a significant effect on the academic performance of the students. Ibiene (2018) further established that students with social anxiety disorder were always isolated from others. Students who felt socially isolated struggled to form meaningful relationships with their peers, leading to a lack of social support and potential feelings of loneliness and sadness. Babirye (2019) averred that social isolation can contribute to a lack of motivation to engage in academic work, as students may not feel a sense of connection or investment in their school community. Additionally, social isolation can make it harder to participate in group projects, class discussions, or extracurricular activities, all of which can contribute to academic success.

In a correlational research design, Njega et al. (2019) conducted a comparative study on the relationship between psychosocial dynamics and academic performance of secondary school students in Kenya's Murang'a and Kirinyaga Counties. The study,

based on the systems theory, involved a target population of 5,879 Form three students from extra-county and national schools in the two counties. A sample of 412 respondents was obtained using a stratified simple random sampling technique. The data was analysed using descriptive and inferential statistics. The results showed that students in Kirinyaga county had better psychosocial endowment compared to their counterparts in Murang'a county. Furthermore, the study discovered a positive correlation between psychosocial dynamics and academic performance.

The study further established that those without better psychosocial endowment had social connection issues which were characterized by fear of judgment and fear of embarrassing situations. Njega et al. (2019) concluded that students who feared judgment avoided taking academic risks, such as asking questions, participating in class discussions, or presenting in front of their peers. Fear of embarrassing situations contributed to social anxiety, leading to avoidance of social situations and a lack of participation in group work or classroom discussions.

2.3.4 Self-esteem disorders and academic achievement

Arshad, Zaidi, and Mahmood (2018) conducted research to investigate the correlation between self-esteem disorders and academic performance among students at Government College University in Faisalabad, Pakistan. The study involved selection of eighty university students using purposive sampling. Data was gathered through a questionnaire. The gathered data was subjected to analysis using Pearson's Product Moment correlation and t-test. The findings revealed a notable association between academic performance and self-esteem among the university students. Arshad, Zaidi, and Mahmood (2018) established that students who felt comfortable expressing individual opinions contributed to class discussions and shared their thoughts and ideas with their peers and teachers. This led to a more engaging and interactive classroom environment, where students felt empowered to learn from each other and share unique perspectives.

Zhao, et al., (2021) also conducted a study in China to investigate the influence of self-esteem on academic achievement among adolescents, using the expectancy-value theory as the theoretical framework. Anonymously filled questionnaires were completed by four hundred and eighty teenagers from Hebei Province, and the

collected data was analysed using version 22 of the Statistical Package for the Social Sciences (SPSS). Pearson correlations were employed to establish the connection between the variables. The study results indicated that academic achievement in adolescents was significantly predicted by self-esteem. Zhao, et al., (2021) concluded that students with a positive affective personality were more engaged in their learning and motivated to achieve academic success. They would approach academic challenges with a positive mindset and persist through difficult tasks.

In Iganga District, Uganda, Babirye (2019) conducted a study on the correlation between self-esteem and academic achievement among secondary school students. The research approach used a quantitative method with a cross-sectional design, incorporating casual comparative and correlational survey designs. Six schools were chosen through a simple random sampling method, and a total of 227 participants took part in the research. The collected data was inputted into the Statistical Package for Social Scientists (SPSS version 23) and analysed employing independent t-tests, Pearson product moment correlation, and multiple regression analysis. The findings indicated a significant positive correlation between self-esteem and academic achievement among the participants. Babirye (2019) revealed that students who took self-initiative were initiative-taking in their learning and took responsibility for their own academic success. They would seek out additional resources, such as tutoring or extra help from their teachers, and engage in independent study and self-directed learning. Babirye (2019) concluded that self-initiative also contributed to better time management skills and more effective study habits, which can lead to higher levels of academic achievement.

Awori (2018) conducted a research study that focused on examining the connection between self-esteem and academic performance among girls with hearing impairments in secondary schools for the deaf in Kenya. The study employed the Big Fish Little Pond theory (BFLP) and Carl Roger's person-centred or client-centred theory. A sample of fifty-three girls was selected from schools for girls with hearing impairment in the central and western regions of Kenya. Data collection involved questionnaires and interviews, and the Statistical Package for Social Sciences was used for data analysis. The findings indicated that girls with hearing impairments exhibited elevated levels of self-esteem but had low academic achievement. The correlation between self-

esteem and academic achievement, as determined by the Pearson Product Moment Correlation, was found to be moderate.

2.3.5 Academic achievement

Academic achievement, as defined by Masud, et al., (2019) is the result of education and refers to how successful a student, teacher, or institution has been in achieving their educational objectives. Legesse (2017) notes that academic achievement is usually assessed through exams or continuous evaluation. The definition of academic achievement encompasses outstanding performance in all academic subjects, both in class and in extracurricular activities, such as sports, confidence, arts, behaviour, punctuality, communication skills, culture, and assertiveness. Mental health issues have been extensively studied as one of the social consequences that may negatively affect academic achievement (Wawa, 2019).

Studies (Masud, et al., 2019; Steinmayr, et al., 2019) on academic achievement in secondary schools focused on the effect of individual factors such as intelligence, motivation, and socio-economic status. Intelligence was found to be one of the strongest predictors of academic achievement in secondary schools, although motivation and socio-economic status were also found to be important (Masud, et al., 2019). For example, students who are motivated to learn and come from socio-economically disadvantaged backgrounds tend to perform worse than their peers, but this can be compensated for through supportive school environments and effective teaching methods.

Bomi (2019) broadened the focus to include the impact of environmental and school level factors on academic achievement was examined in his research. The findings revealed that the quality of teaching, school climate, and teacher-student relationships all contribute significantly to determining academic achievement in secondary schools. Students who are taught by effective teachers tend to perform better, as do students who attend schools with positive climates and supportive teachers (Bomi, 2019).

Valverde-Berrocso, Acevedo-Borrega, and Cerezo-Pizarro (2022) focused on the effect of technology on academic achievement in secondary schools. The study found

that the use of technology, particularly computers and the Internet, can have a positive impact on academic achievement by increasing student engagement, motivation, and achievement. This was found to be particularly true for students from disadvantaged backgrounds, who may not have access to these resources at home. Cansız, Ozbaylanli, and Çolakoğlu (2022) focused on the effect of school policies and programs on academic achievement in secondary schools. Their research found that school policies that promote equity and access to quality education tend to result in higher academic achievement, while policies that perpetuate inequality and marginalize students tend to result in lower achievement.

According to Grasseti et al. (2018), the definition of student academic achievement should be based on objective academic indicators. They suggested that students' performance on exams, homework, and course grades, which reflect their academic skills and classroom behaviour, should be the criteria for measuring academic achievement.

2.4 Theoretical review

This study was anchored on the ecological systems theory as developed by Bronfenbrenner (1979) and cognitive theory by Lazarus (1974). These concepts in Lazarus' and Bronfenbrenner's theories helped to explain the linkages between the environment of marginalization and low socioeconomic status in Samburu and the mental health and educational performances of secondary school learners in the County.

2.4.1 Bronfenbrenner's ecological systems theory

The study employed Bronfenbrenner's (1979) Ecological Systems Theory, which views an individual's environment as a series of interconnected structures (Ganira, Odundo, Gatumu, and Muasya 2019). This is significant as mental health research is increasingly recognizing the influence of environmental and ecological factors in an individual's life. Ecological factors are believed to have a significant impact on various aspects related to mental health. However, only a limited number of studies have adopted a comprehensive approach that considers all these factors simultaneously.

According to Bronfenbrenner (1999), individuals are enveloped by a hierarchy of environmental settings that range in size, whereby smaller settings are enveloped by larger environmental settings. The ecological systems theory proposes that diverse levels of relational, social, and environmental influences interact with an individual's emotions and affect their behaviour, mental health, and overall well-being (Papish, et al., 2013).

Bronfenbrenner (1999) proposed that an individual's development is significantly impacted by individuals and settings in their surroundings throughout their life, starting with the closeness of their home and expanding to include other aspects of their environment. This theory has been extensively utilized in human development and mental health literature and has resulted in the creation of several models. According to Bronfenbrenner (1999), the ecological systems theory suggests that the overall environmental context in which an individual grows and develops is composed of four main levels: the microsystem, mesosystem, exosystem, and macrosystem (Ganira, Odundo, Gatumu, and Muasya 2019).

Bronfenbrenner (1999) defines the microsystem as the immediate environment surrounding a child, including their family, home, and any institutions, like their school, which interact with them and their family. According to Bronfenbrenner (1999), the way parents bring up their children has a substantial impact on their emotional and psychological growth, which becomes more apparent during adulthood. Bronfenbrenner's mesosystem, the second level in his theory, refers to the relationships and interplay between the various elements in the microsystem and explains how the various parts of a child's microsystem function together (Papish et al., 2013).

When parents actively engage in their child's life by participating in activities such as attending parent-teacher conferences or supporting them in sporting events, they can foster their child's physical, social, and psychological development by spending quality time with them. Conversely, if parents exhibit contradictory behaviour, it can impede the child's growth and development in multiple aspects (Tudge et al., 2009). This phase has a substantial impact on early adulthood since positive interactions between a child and their parents can encourage balance in the child's learning and

well-being, while conflicting interactions can lead to dysfunction in the child's overall development during early adulthood (Petersen, Lund, & Stein, 2017).

The exosystem level, according to Petersen, Lund, & Stein (2017), includes people and places that may not be part of a child's regular interactions but can still significantly affect their life, such as the parents' workplace, community, and extended family and peers. When parents are unable to provide for their children due to unemployment, it can have negative consequences, such as the inability to buy food, pay rent or school fees. Conversely, if a parent receives a promotion or a raise, it may positively impact the child's physical needs.

The macrosystem, which is Bronfenbrenner's final level, is the level that is most distant from the individual, yet it significantly impacts their life (Tayag & Gonzales, 2021). The macrosystem pertains to the culture in which people exist, encompassing aspects like government freedoms, societal norms and cultural values, the economy, wars, and other similar factors. These factors can have both beneficial and detrimental impacts on an individual's life.

2.4.2 Lazarus' cognitive theory of stress

The study turned to Lazarus' (1974) cognitive theory of stress as a response to the limitations of Bronfenbrenner's Ecological Systems Theory. Within the cognitive theory, there are two fundamental ideas that are essential for understanding stress:

Primary Appraisal: This refers to how individuals perceive the severity, harm, or challenge posed by stressors, and it is a cognitive process that influences their experience of stress (Misigo, 2015).

Coping: In Lazarus' cognitive theory of stress, the second significant concept revolves around the assessment individuals make regarding the presence of coping resources to manage the impacts of stressors. This assessment process is known as secondary appraisal and encompasses various coping methods, including problem-focused and emotion-focused strategies.

Lazarus (2000), describes stress as a process that results from the interaction between an individual and their environment, involving a psychological state that arises when an individual perceives the demands of a situation as exceeding their available coping resources. According to this theory, cognitive appraisal and coping processes play a crucial role as mediators in this relationship. The cognitive appraisal process involves two stages: primary and secondary appraisal, each of which relies on distinct sources of information. The primary appraisal specifically focuses on the characteristics of the stressor itself that the individual is encountering, while secondary appraisal is related to the coping mechanisms that are at the individual's disposal.

Lazarus (2000), states that the coping process is influenced by both primary and secondary appraisals. Coping, as defined by Ezeh, Ezeh, and Okey (2016), involves cognitive and behavioural efforts aimed at managing, enduring, or reducing external or internal demands and conflicts. Coping encompasses physical, emotional, and cognitive processes that individuals undertake to deal with stress. Lazarus (2000) suggests that individuals may utilize problem-focused coping, which involves attempting to modify the person-environment factors causing stress. This can include identifying the root causes of stress and taking steps to resolve them, as outlined by Palmer (2009).

2.5 Conceptual framework

The conceptual framework presents a visual depiction of the relationship between variables, their connection to the study, clearly defining the independent and dependent variables. An independent variable has an impact on and shapes the effect of another variable. In this study, the dependent variable was academic achievement, while independent variables were anxiety disorders, depression, social connection, and self-esteem. These variables emerge from both the Bronfenbrenner and Lazarus theoretical models.

On anxiety disorders, individuals living in a conflict prone area such as Samburu County may develop post-traumatic stress disorder. Lazarus' theory posits that anxiety disorders are characterized by excessive and persistent feelings of fear or worry, often in response to situations or stimuli that do not pose a significant threat. According to Bronfenbrenner's theory, if an individual experiences stressful life events or negative

interpersonal experiences within microsystem settings, such as abuse, neglect, or rejection, it can contribute to the development of depression. The theory suggests that depression can arise from a complex interplay between the individual and their environment.

On the contrary, Lazarus' theory suggests that depression is distinguished by enduring emotions of sadness, hopelessness, and a diminished interest or enjoyment in activities that were previously pleasurable. Individuals with depression may engage in negative cognitive appraisals of themselves, their experiences, and their future. These negative appraisals can contribute to the development of negative self-talk and low self-esteem, which are common features of depression.

Bronfenbrenner's ecological systems theory also postulates that positive relationships within the environment, such as close friendships or supportive family members, can contribute to the development of social connection. On the other hand, negative relationships, such as bullying or conflict within the family, can inhibit social connection. Lazarus's model suggests that individuals who have effective coping strategies, such as problem-solving or seeking social support, may be more likely to form positive social relationships. Conversely, individuals who have maladaptive coping strategies, such as avoidance, irritability, or aggression, may struggle to form and maintain positive social connections.

Bronfenbrenner's ecological systems theory also suggests that self-esteem can arise from a complex interplay between the individual and their environment. Positive experiences, consistency and supportiveness between different environments, positive external events, and inclusive cultural and societal contexts can all contribute to the development of higher self-esteem. On the other hand, negative experiences, inconsistency and lack of supportiveness, negative external events, and discriminatory cultural and societal contexts can lower self-esteem. Additionally, based on Lazarus's theoretical model students who are part of a supportive school environment, where they feel valued and included, may be more likely to develop positive self-esteem.

Therefore, both scholars' theories are relevant for this study because they highlight different yet critical aspects that are connected to the independent and dependent variables. The four independent variables (anxiety disorders, depression, social

connection, and self-esteem) in this study clearly impact the dependent variable (academic achievement) either positively or negatively. The effects are determined by the learner's environment, which confirms that there is a complex relationship between the surroundings of the individual and their actual performance. Any of the four independent variables can be manipulated to achieve the desired result in the dependent variable.

Convergence to our study: Bronfenbrenner's theory views human development as a mutually influencing process between an individual and their immediate environment, which is influenced by numerous factors in their surroundings. Mental health issues can arise from various sources. The theory can serve as a useful framework to comprehend the interdependence between family, culture, traditions, social and environmental support, and mental health of secondary school learners in Samburu County. The microsystem, which encompasses the immediate environment, includes extended family for these students since many of them live in situations where multiple generations reside in the same home or compound. Undoubtedly, the development of a child is impacted by their environment. Petersen, Lund, & Stein (2017) suggest that children are likely to experience a greater sense of overall wellness and positive self-efficacy if their parents and other adult figures in their extended family are more nurturing and supportive.

Lazarus' Cognitive Theory of Stress furnishes a model for comprehending the intricate association between stress, academic success, and mental well-being. In the context of students, academic stressors, such as tests, assignments, and the pressure to perform well, can negatively impact their mental health and academic achievement. If students appraise these stressors as overwhelming, they may experience stress and anxiety, which can lead to physiological responses such as increased heart rate, difficulty sleeping, and decreased focus and motivation. These physiological responses can, in turn, negatively impact their mental health and academic performance.

Divergence from our study: Bronfenbrenner's Ecological Systems Theory does not show how individuals through their cognitive processes appraise stressors in the ecological environment and develop coping mechanisms to overcome the stressors. The theory only shows how individuals are influenced by the ecological environment

and negates the ability of the individual to cognitively process the influence of the environment on them. According to studies conducted by Pierceal and Kein (2007) and Kasayira, Chipandambira, and Hungwe (2007), problem-focused coping is more effective in managing stress than emotion focused coping.

The relationship of these variables is shown in figure 2.1.

Variable	Variable Type	Operationalization of Variable
Anxiety disorders	Independent	Emotionality/Skills deficit/Trouble concentrating
Depression	Independent	General discontent/Irritability/Suicide attempts
Social connection	Independent	Social isolation/Fear interacting/Fear of judgement/Fear of embarrassing situations
Self-esteem	Independent	Expressing opinions/Affective personality/Positive perception/Self-initiative
Academic Achievement	Dependent	Grade score/Attendance Rates/Drop-out rates



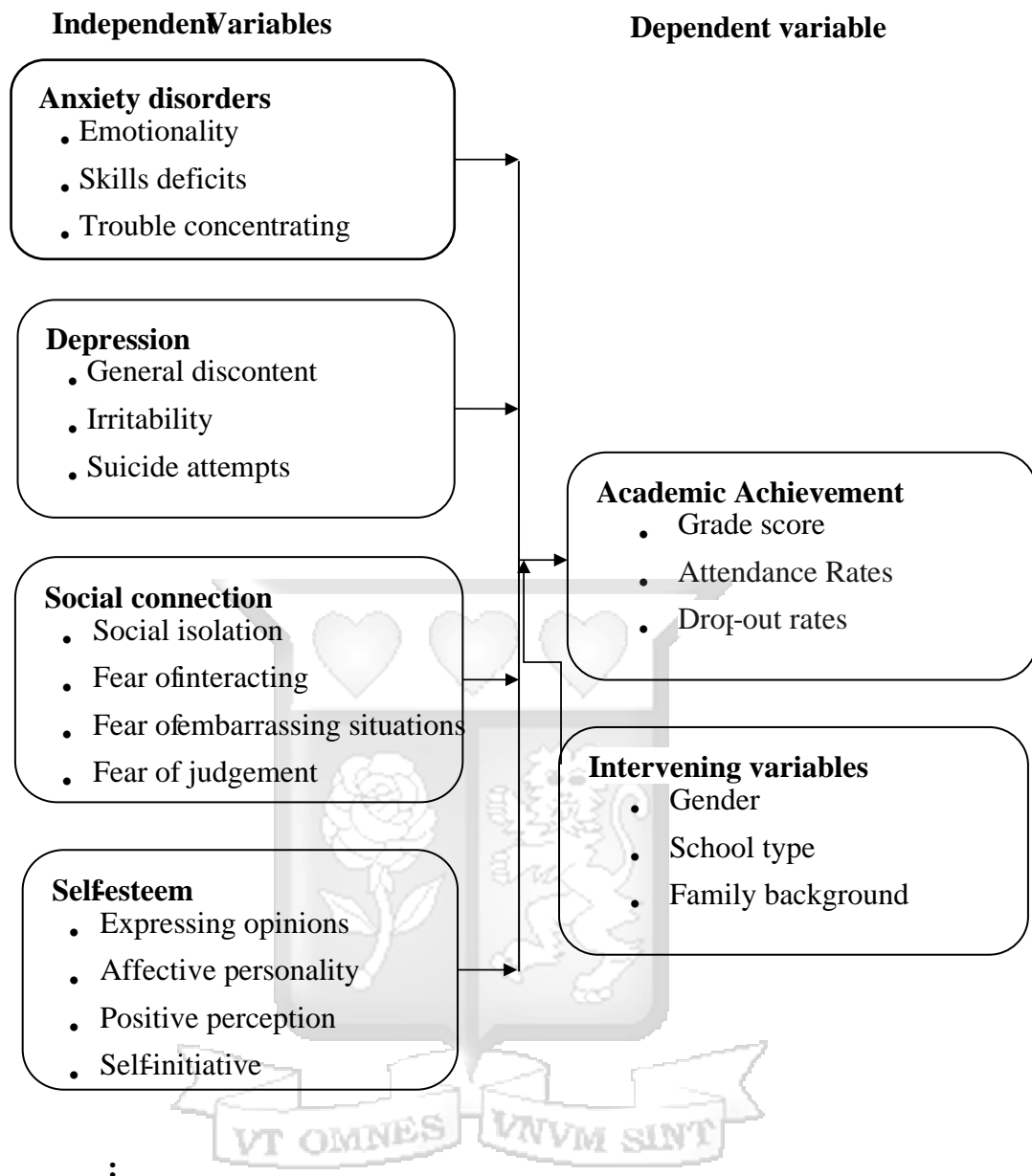


Figure 2.1: Conceptual framework

2.6 Gaps and summary of literature review

From the reviewed literature, most of the studies focused on the individual relationship of independent variables (anxiety disorders, depression, social connection, and self-esteem) with the dependent variable (academic achievement). This study examines the correlation between the dependent variable and all the independent variables. This is because Samburu County population is at a higher risk of mental health problems owing to its greater exposure and vulnerability to unfavourable socioeconomic and environmental circumstances relative to the general population. The experiences of poverty and marginalization in the County are likely to promote significant prevalence

and severity of mental health problems among secondary school students in the County.

Additionally, most of the studies were conducted in developed and emerging countries such as Bisson (2017) and Tayag and Gonzales (2021) in USA, Khurshid, et al., (2015) in Pakistan and Zhao, et al., (2021) in China. One can argue that coping strategies and systems for managing mental health problems differ between developed and emerging economies and a developing economy such as Kenya. This has been ably illustrated by Kimani (2018) who established that interventions for mental health students are not as advanced in Kenya as those in developed countries.

In terms of theory, none of the theories have looked at the ecological viewpoint of the individual and the role the ecological systems play in mental health and coping mechanisms. Some of the studies have not even been anchored on any theory. Others have relied on only one theory with no supporting theory to cover the weaknesses of the other. For instance, the study by Khurshid, et al., (2015) was anchored on Hans Selyes's General Adaptation Syndrome theory in relation to depression and its influence on academic achievement. However, Hans Selyes's theory fails to explain the processes that lead to the conversion of external harmful events into internal subjective experiences of distress.

The theory has a flaw in that it does not acknowledge the essential role of coping mechanisms in regulating the stress response. Moreover, the theory was formulated based on experiments conducted on animals in controlled laboratory environments, which failed to acknowledge the impact of human cognition on stress perception.

Additionally, the theory disregarded the significant role played by individual cognitive processes in shaping human stress experiences, unlike the physiological stress studied by Selye (1976). Khurshid, et al., (2015) and other researchers whose studies have been reviewed by the current study failed to back up the theory with a cognitive theory that appreciates the cognitive processes of the stressors by people and the role of human cognition in shaping coping mechanisms. The current study avoids making such a mistake in theory by addressing the weaknesses of the ecological systems

theory as developed by Bronfenbrenner (1979) by supporting it with the cognitive theory by Lazarus (1974).

In terms of research methodology, few studies have focused on secondary school students and most of them have focused on college and university students. Additionally, most of the studies have used a single design with small sample sizes drawn from single institutions. The research utilized both causal and cross-sectional research designs to establish a definitive correlation between mental health and academic performance. The study selected its sample from a diverse range of schools located in Samburu County. The primary objective of this investigation was to address the gaps by examining the link between mental health and academic achievement among high school students in Samburu County.

2.7 Operationalization of variables

Table 2.1: The study variables were operationalized as shown

Variable	Variable Measurement	Type of analysis
Anxiety disorders	Ordinal	Descriptive/Inferential
Depression	Ordinal	Descriptive/Inferential
Social connection	Ordinal	Descriptive/Inferential
Self-esteem	Ordinal	Descriptive/Inferential
Academic Achievement	Ordinal	Descriptive/Inferential

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines the methodology that the researcher used to address the research questions. The methodology is presented in the following sequence: description of the population and sampling technique, data collection methods and tools, quality assurance, and data analysis. Additionally, this section includes a discussion of ethical considerations.

3.2 Philosophical foundation

Weaver and Olson (2016) describe philosophy as a set of beliefs and practices that shape how research is conducted within a particular discipline. These philosophies function as frameworks or lenses that guide the research process and shape the way in which investigations are conducted. This study utilized both positivist and interpretive philosophical positions of epistemology. The positivist philosophy is often associated with quantitative research while the interpretive philosophy is commonly linked to qualitative research and aims to gain insights and comprehension about the world based on an individual's unique perspective (Hope & Waterman, 2013). The positivist philosophy maintains that there exists a single, objective reality.

As a result, Hope and Waterman (2013) state that valid research is determined by the extent to which it can be supported by evidence that corresponds to the phenomena being studied. The study being conducted on the relationship between student mental health and academic achievement in secondary schools in Samburu County was based on the positivist philosophy, which emphasizes the objective nature of the investigation. In contrast, interpretive philosophy is more strongly associated with methodological approaches that give voice to the concerns and practices of research participants (Cole, 2016). Therefore, the interpretive approach differs from the objective approach used by the positivist.

3.3 Target population and sampling procedure

As per the definition provided by Otzen and Manterola (2017), the target population pertains to the complete set of people, or objects and events that a researcher intends to apply their conclusions. For this research, the target population encompassed

secondary school principals and guidance and counselling teachers. There were 52 secondary schools in Samburu County as per the 2020 MOE schools census report. As such, the target population was 52 guidance and counselling teachers from these schools. The choice of guidance and counselling teachers was informed by the fact that, their experience working with students in a counselling capacity made them well-positioned to provide insights on the topic and could provide valuable perspectives on the relationship between mental health challenges and academic success. Guidance and counselling teachers have direct access to students who may be experiencing mental health challenges, allowing them to observe and document the relationship between mental health and academic achievement in real-time. The principals also participated in mixed data collection as key informants.

When the target population is small, as noted by Orodho (2012), the entire population can be sampled. Scheaffer, Mendenhall, Ott, and Gerow (2011) defined a census survey as a research method where the population and the sample are identical. Therefore, the researcher employed a census survey to reach out to all heads of guidance and counselling programs in the 52 secondary schools in Samburu County. However, for the principals who participated in the interviews, the study used purposive sampling and selected 20 participants. The sampling method, which is a non-probability technique, was chosen because the study topic was unique to the county and the secondary schools within it (Campbell S., Greenwood M., & Prior S. 2020). Table 3.1 illustrates the study's sample frame.

Table 3.1: Target Population

Category of Respondents	Frequency	%age of total sample	Actual Response Rate
Principals	20	38%	20
Guidance and Counselling Teachers	52	100%	50

3.4 Data collection methods and instruments

The researcher collected primary data that was mixed (quantitative and qualitative) in nature through the questionnaire for the guidance and counselling teachers as well as interview guides for the principals. The data applied to all research questions as all

data was analysed quantitatively. According to Moyo (2017) a questionnaire is an ideal instrument in collecting large volumes of data in a cheap way. For this study, the instrument was structured such that the questions were open and closed-ended to give standard responses. To evaluate the respondents' answers to the statements, a five-point Likert Scale was implemented. The questionnaire featured three sections, with the first section focusing on the respondents' biodata. The second section encompassed the independent variables of mental health, and the third section examined the dependent variable of academic achievement.

The researcher sought written informed consent from the respondents after explaining the purpose of the research and its importance. The respondents completed the questionnaires themselves at their respective workplaces. The respondents were given hard copy questionnaires and interview guides, and all were allowed one week to fill them in before they were collected and commencement of data analysis. The researcher kept a record of all those respondents who had been given the instrument to ensure that none were forgotten and increased the response rate.

To gather data from school principals, a Key Informant Interview Guide was also utilized. An interview guide helps a researcher to ask follow-up questions in case there is any clarification needed. When approaching the principals, the researcher introduced himself and explained the purpose of the interview. This helped to establish a rapport and build trust. The researcher then sought consent of the principals to interview them. The researcher took notes during the interview to capture key points and themes. This method was useful for capturing initial impressions and observations.

3.5 Data analysis and presentation

After collecting all the data, the researcher proceeded to edit, code, classify, and enter it into the Statistical Package for Social Sciences (SPSS version 26.0) for further analysis. Descriptive analysis was conducted, which involved obtaining measures of central tendency such as means, standard deviation, and frequencies. Qualitative data analysis focused on the content of the responses, identifying recurring themes or patterns, and organizing them into meaningful categories.

To illustrate the correlation between the independent variable of mental health and the dependent variable of academic achievement, the researcher employed inferential statistics. A correlation analysis was conducted to determine the degree of interdependence between the variables. Furthermore, a multiple regression analysis was performed using the regression model specified as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$$

Where:

Y = Academic achievement

β_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$ = Coefficients of mental health

X1 = anxiety disorders

X2 = Depression

X3 = Social connection X4 = Self-esteem

ϵ = Error term

The study findings were presented through figures, charts, tables, and discussions.

3.6 Ethical considerations

Before starting the data collection, the researcher obtained ethical approval for the research from Strathmore University ISERC, followed by the research permit from NACOSTI. The authorization letter and research permit were given to the management of the schools to gain permission to collect data from their schools. Before agreeing to participate, participants received comprehensive information about the study's purpose, procedures, and potential risks involved. They were also informed about their right to withdraw from the study at any point without facing any negative consequences. Participation in the study was voluntary, and respondents were not charged any fees; their involvement was solely based on their willingness to participate. They signed an informed consent stating that they were willingly participating and that they made the decision free of any pressure or coercion.

The researcher observed confidentiality of the information that was collected and kept the identities of the respondents confidential. All the information was used for academic purposes only and researchers and authors were acknowledged to remove

cases of plagiarism. The data collected in this study was used for research purposes only. All data was reported in an aggregate form and individual participants were not identified. Additionally, respondents were informed that the data might be shared with other researchers who would wish to conduct further analysis on the topic. The data would be stored confidentially on a password-protected computer and will only be accessible to the researcher and the supervisors.



CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.1 Introduction

This chapter comprises presentation and interpretation of the study's findings. The objective of the research was to determine the correlation between student mental health and academic achievement in secondary schools situated in Samburu County, Kenya. The collected data was organized and summarized using tables and figures, and qualitative analysis was conducted to gain further insights.

4.2 Response rate

The study had targeted 52 guidance and counselling teachers from 52 secondary schools in Samburu County. Out of the 52, 50 were able to respond and fill in the questionnaires, while 2 did not. This represents a 96% response rate.

Table 4.1: Guidance and Counselling Questionnaire Response Rate

Response	Frequency	Percentage (%)
Completed questionnaires	50	96
Uncompleted questionnaires	2	4
Total	52	100

4.3 Background information

4.3.1 Education level attained

The participants were also asked to indicate the highest level of education achieved. The results, presented in Table 4.2, reveal that a majority (72%) of the respondents had completed undergraduate education, 20% had attained a postgraduate level, and 8% had an advanced diploma. This indicates that all the participants were adequately qualified, implying that their input and information could be considered dependable.

Table 4.2: Education level attained

Category	Frequency	Percent
Advanced diploma	4	8.0
Undergraduate level	36	72.0
Postgraduate level	10	20.0
Total	50	100.0

4.3.2 Period in the current position

The participants were also asked to specify the duration of service in their current positions at the schools. The findings, illustrated in Figure 4.1, indicate that 48% of the respondents had served for 1-5 years, 28% for 6-10 years, 14% for 11-15 years, and 10% for more than 15 years. These results suggest that the respondents had accumulated enough experience in their current roles, thereby making them well-suited to provide reliable data for the study.

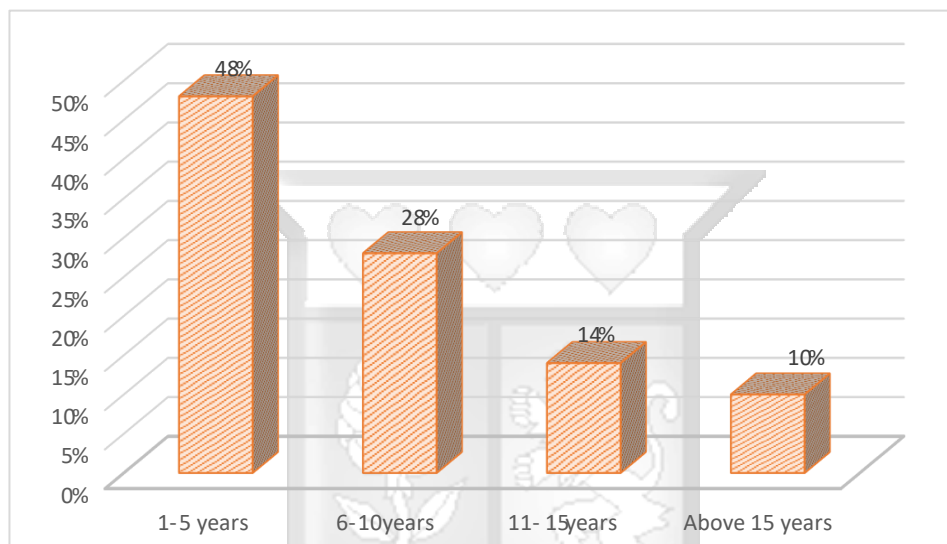


Figure 4.1: Period in the current position

4.4 Anxiety disorders and academic achievement

4.4.1 Cases of anxiety disorders among the students

The study also enquired on whether there had been cases of anxiety disorders among the students in the schools. The results were illustrated in figure 4.2.

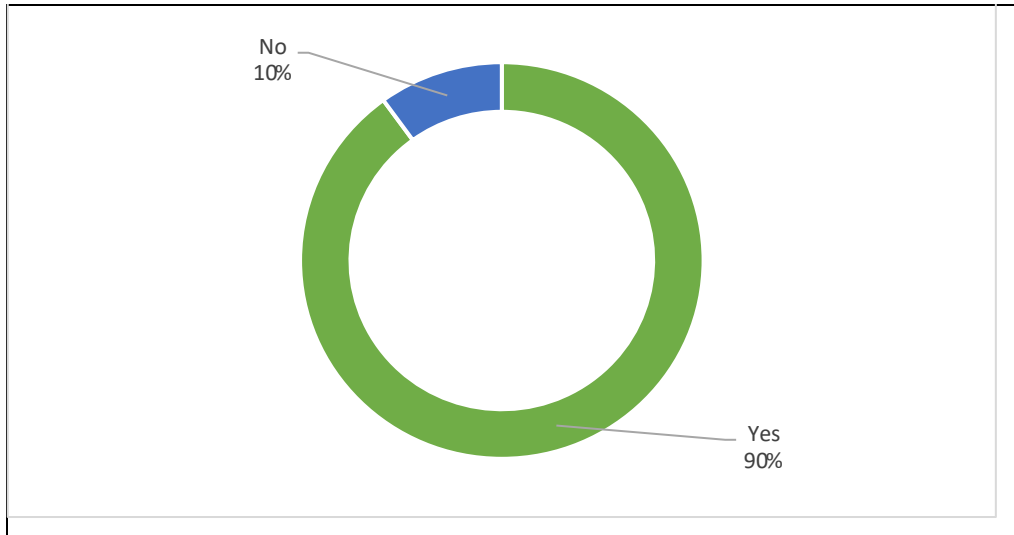


Figure 4.2: Whether there are cases of anxiety disorders among the students

The results indicate that the majority (90%) of the respondents stated that they had cases of anxiety disorders among the students in the schools. This shows that cases of anxiety disorders were rampant.

4.4.2 Some of the symptoms of anxiety disorders witnessed

The principals used the interview guide and provided responses regarding the symptoms of anxiety disorders. Some of the responses read:

“My students tend to withdraw socially and sit away from colleagues during breaks, some rate poorly in personal hygiene, some feign sickness leading to missing examinations”.

“I have observed that some students get panic attacks, others become so nervous that they cannot even engage in the classroom, while others oversleep and report to school late”.

“In several cases, my students tend to sleep in class due to disrupted sleep patterns, some fail to complete their assignments, and others are just restless”.

“Some students cry uncontrollably and lack a valid reason, and others sneak in drugs such as cigarettes, alcohol, and Cannabis Sativa. After speaking to my guidance counsellors, they highlight that the students exhibit these behaviours to attract attention”.

These responses, which are like other principals' answers, represent a similarity of symptoms that students exhibited. Most (45) of the respondents highlighted avoidance of exams, nervousness, excessive sweating, poor hygiene, withdrawal from others, trembling and panic attacks as some of the symptoms of anxiety disorders that they had witnessed. The respondents (42) also stated that some of the students were always restless and tense and had poor time management. Additionally, some of the students had shown unexplainable crying or shedding of tears (38), restlessness (30), lack of or too much sleep (43) and drug abuse (40).

Upon further probe from the principals, most (18) indicated that students with anxiety disorders exhibit avoidance behaviours to escape situations that trigger their anxiety. This included avoiding social events (18), public speaking (17), participating in class discussions (18), and situations that involve academic challenges (18). They also indicated that some students with anxiety disorders would strive for perfection and place excessive pressure on themselves to excel academically (16). They would exhibit a fear of failure and engage in overachieving behaviours to alleviate anxiety.

4.4.3 Ways and extent that anxiety disorders influenced the students' academic achievement

The principals' responses regarding the ways in which the students' academic achievements were affected appeared to highlight similar trends.

“When my students exhibit anxiety disorder symptoms, their behaviours affect their schoolwork negatively. For instance, those that engage in drug abuse may be suspended upon persistence. Their performance drops because they miss lessons and examinations. While we try to bring them up to speed when they get back through remedial lessons, some have expressed utter lack of interest”.

“I have observed that most students tend to perform poorly in terms of anxiety disorders. This deficient performance can be attributed to the disruption of studies, absentmindedness, lack of concentration, failure to comprehend topics being taught at the time, lack of engagement in the classroom. The guidance counsellors encourage

that we try to deal with the symptoms as soon as they surface to avoid extensive exposure and time wastage for the learner”.

These responses tend to match the data that was obtained regarding the extent of the effects. The findings were illustrated in table 4.3.

Table 4.3: Extent of anxiety disorders’ influence on students’ academic achievement

Extent	Frequency	Percent
To an extremely limited degree	2	4.0
To a small degree	4	8.0
To a moderate degree	17	34.0
To a large degree	10	20.0
To an exceptionally large degree	17	34.0
Total	50	100.0

As indicated in table 4.3, 34% of the respondents indicated that anxiety disorders influenced the students’ academic achievement to an exceptionally large degree and to a moderate degree, respectively. 20% stated that anxiety disorders influenced the students’ academic achievement to a large degree, 8% to a small degree and 4% to an extremely limited degree. This illustrates that anxiety disorders influenced students’ academic achievement.

4.4.4 Agreement level on statements relating to anxiety disorders

The respondents were also requested to indicate agreement level to statements pertaining to anxiety disorders. The findings were as shown in table 4.4. As demonstrated, most of the respondents agreed that excessive anxiety among the students had resulted to poor school performance and that anticipating exams frustrated and made the students with anxiety disorders to feel depressed as indicated by mean scores of 4.10 and 4.08, respectively. The respondents also agreed that anxiety disorders had led students to substance abuse which affected their studies; that students with anxiety disorders perceived neutral situations as threats and that anxiety disorders have been associated with impairment of memory among the students as indicated by mean scores of 3.88, 3.76 and 3.88, respectively.

However, the respondents disagreed that the school had training programs for teachers to identify the disorders in students as shown by a mean score of 2.34. This data highlights the lack of avenues for collaboration and social interactions that would help students with social anxiety. The programs would also be helpful in creating mental health awareness.

Table 4.4: Agreement level on statements relating to anxiety disorders

Statements	Mean	Std. Deviation
Anxiety disorders have been associated with impairment of memory among the students	3.68	1.039
Excessive anxiety among the students have resulted to poor school performance	4.10	0.909
Students with anxiety disorders perceive neutral situations as threats	3.76	0.625
Anxiety disorders has led students to substance abuse which affects their studies	3.88	0.918
Anticipating Exams frustrates and makes the students with anxiety disorders to feel depressed	4.08	0.853
The school has training programs for teachers to identify the disorders in students	2.34	1.364

4.4.5 Other ways in which anxiety disorders influence academic achievement

The researcher also enquired to identify other ways in which anxiety disorders influenced academic achievement. The respondents (66%) stated that students with anxiety disorders had poor consultation with other students and teachers leading to deficient performance. 62% of them also stated that there was rise in indiscipline cases in the school and that students with anxiety disorders had poor interpretation of concepts and harboured negative thoughts. Students with anxiety disorders also portrayed decreased motivation (80%), failed to do assignments (82%), and had chronic absenteeism (68%). The principals (17) also indicated that anxiety disorders often manifested as test anxiety, where students experienced excessive fear and worry about taking tests or performing academically. This would result in cognitive impairment during exams, including blanking out, difficulty remembering information, or a decline in problem solving abilities.

4.5 Depression and academic achievement

4.5.1 Cases of depression among the students

The respondents also enquired on whether there were cases of depression among the students. The findings were illustrated in figure 4.3. The results indicate that the majority (90%) of the respondents stated that they had cases of depression among the students in the schools while 10% indicated otherwise. This shows that there was an existence of depression cases among the students.

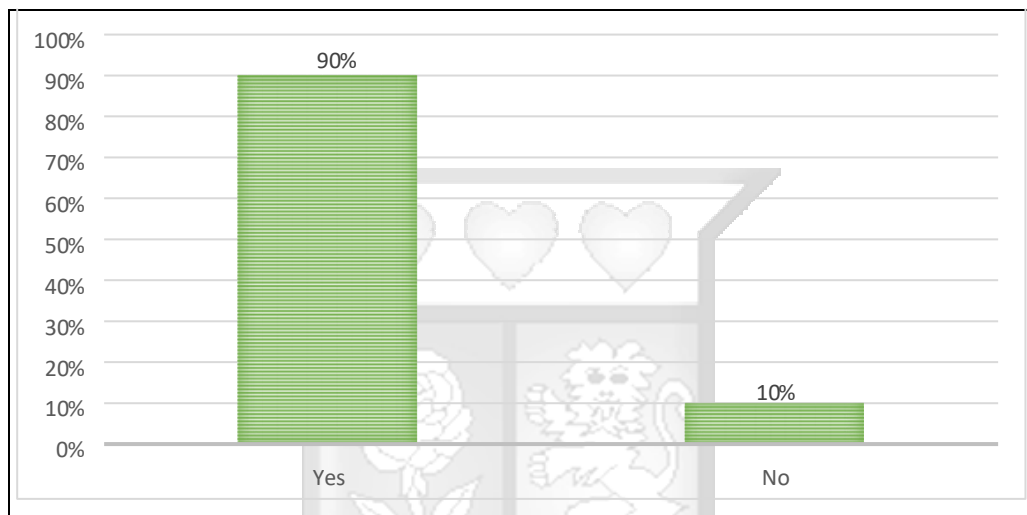


Figure 4.3: Whether there are cases of depression among the students

4.5.2 Some of the symptoms of depression witnessed

The study also sought to establish some of the symptoms of depression that had been witnessed among the students in the schools. Most (74%) of the respondents indicated that students with depression had poor concentration in class and were always sleeping during lessons and showed signs of fatigue. The respondents (58%) also stated that the students harboured suicidal thoughts and were always feeling guilty about things. The students also engaged in dangerous and harmful fights with other learners on the slightest provocations. Students with depression were also always sneaking out of school to smuggle in drugs. They would sometimes go on hunger strikes and complained of headaches all the time.

The principals (15) also indicated that depressive disorders led to persistent fatigue and a general lack of energy. Students would feel physically and mentally exhausted (16), making it difficult for them to engage fully in their academic work or participate

in daily activities. 18 of them also stated that depression affected appetite and eating patterns of the depressed students. Students experienced a significant decrease or increase in appetite, resulting in noticeable weight loss or weight gain (18). Additionally, the principals (19) stated that depressive disorders disrupted the students sleep patterns. Students struggled with insomnia (16), having trouble falling asleep or staying asleep. On the other hand, some students experienced hypersomnia (17), where they slept excessively but still felt tired.

4.5.3 Extent that depression influenced the students' academic achievement

The researcher also enquired on the degree to which depression influenced the students' academic achievement and the findings were as shown in table 4.5. As shown 38% of the respondents stated that depression influenced the students' academic achievement to an exceptionally large degree, 30% to large degree, 20% to a moderate degree, 4% to an extremely limited degree and 2% to an extremely limited degree. This shows that indeed depression influenced academic achievement.

Table 4.5: Extent that depression influenced academic achievement

Extent	Frequency	Percent
To an extremely limited degree	2	4.0
To a small degree	1	2.0
To a moderate degree	10	20.0
To a large degree	18	36.0
To an exceptionally large degree	19	38.0
Total	50	100.0

4.5.4 Agreement level on statements relating to depression

The participants were also asked to indicate level of agreement with statements related to depression. As depicted in Table 4.5, most of the respondents agreed that depression interfered with the daily life of the students leading to deficient performance as evidenced by a mean score of 4.04. Additionally, as evidenced by mean scores of 3.92 the respondents agreed that students with depression had shown irritability and were always irritated by anything, and that poor academic performance had also led to students becoming more depressed. The respondents also agreed that students with depression had depicted general discontent with everything as evidenced by a mean score of 3.82. The respondents also moderately agreed that there had been suicide attempts by students suffering from depression and that students with depression spent

a lot of time out of school receiving treatment, which affected performance as shown by mean scores of 3.44 and 3.42, respectively.

Table 4.6: Agreement level on statements relating to depression

Statements	Mean	Std. Dev
There have been suicide attempts by students suffering from depression	3.44	1.163
Students with depression have depicted general discontent with everything	3.82	.919
Students with depression have shown irritability and are always irritated by anything	3.92	.724
Poor academic performance has also led to students becoming depressed	3.92	.695
Depression interferes with daily life of the students leading to deficient performance	4.04	.669
Students with depression spend a lot of time out of school receiving treatment, which affects performance	3.42	.971

4.5.5 Other ways in which depression influenced academic achievement

The researcher also enquired to identify other ways in which depression influenced academic achievement. The respondents (76%) stated that truancy in the schools led to deficient performance and depression had led to poor teacher learner relationships which affected the students' performance. The respondents (52%) also agreed that absenteeism caused by depression had risen, leading to deficient performance. The depressed students also showed disinterest in pursuing passions and planning and affected decision making and judgement (88%). Respondents (60%) also stated that students with depression perceived assignments given as punishment. They also showed an inability to complete exams and had a lot of time wasted.

The principals (19) also indicated that depression led to a decline in academic performance and a drop in grades. They indicated that difficulties with concentration, motivation, and engagement, coupled with reduced productivity and impaired cognitive abilities, resulted in lower test scores, incomplete assignments, and overall reduced academic achievement. 16 of them also stated that depression contributed to increased school absenteeism and tardiness. Students with depression had difficulty getting out of bed or finding the energy to attend school regularly. As stated by 15 of the principals, persistent feelings of sadness, fatigue, and hopelessness would make it

challenging for students to consistently show up for classes, resulting in missed instructional time and gaps in learning.

4.6 Social connection disorders and academic achievement

4.6.1 Cases of social connection disorders among the students

The researcher also enquired whether there had been cases of social connection disorders among the students in the schools. As indicated in figure 4.4, the majority (94%) of the respondents agreed that there were had been cases of social connection disorders among the students in the schools while 6% indicated the contrary. This depicts that indeed social connection disorders had been noted among the students in the schools.

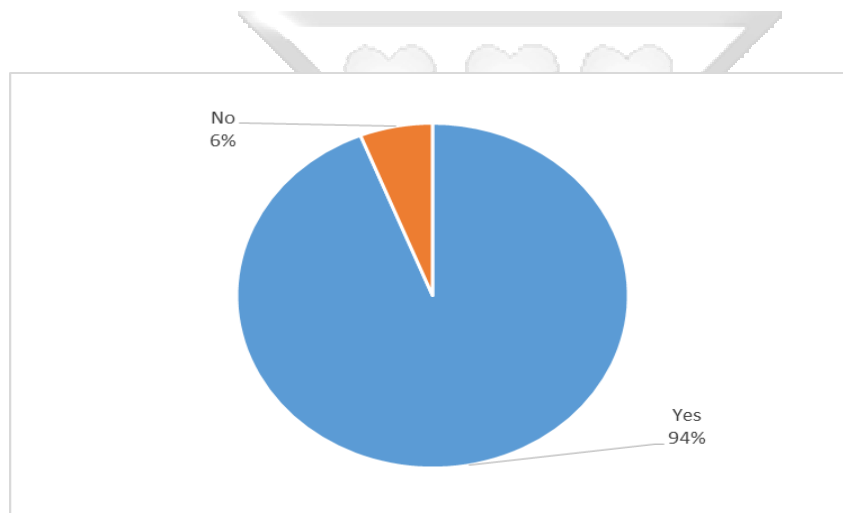


Figure 4.4: Cases of social connection disorders among the students

4.6.2 Some of the symptoms of social connection disorders witnessed

The researcher also requested the respondents to state some of the symptoms of social connection disorders that had been witnessed among the students in the schools. 80% of the respondents stated that students with social connection disorders always looked lonely and kept quiet most of the time to the extent of being labelled the silent one by other students. The respondents (78%) also stated that the students were not active in group discussions and did not have eye contact while talking. 82% of the respondents indicated that the students did not answer questions during class as they perceived their answers as having low weight. The students also did not attempt to consult teachers and other students on difficult and challenging problems. They also lacked empathy, had difficulty in controlling emotions and used inappropriate body language.

The principals (16) also stated that students facing social connection issues would become targets of bullying or teasing by their peers. This negative treatment exacerbated their sense of isolation, further impacting their overall well-being and social interactions. As indicated by 15 of the principals, these students would find it challenging to participate in group activities, such as group projects or team sports. They would struggle with teamwork, collaboration, or sharing ideas openly, which affected their academic performance and social integration.

4.6.3 Extent that social connection disorders influenced academic achievement

The researcher also enquired on the degree to which social connection disorders influenced the students' academic achievement and the findings were as shown in table 4.7.

Table 4.7: Extent that social connection disorders influenced academic achievement

Extent	Frequency	Percent
To an extremely limited degree	2	4.0
To a small degree	4	8.0
To a moderate degree	9	18.0
To a large degree	23	46.0
To an exceptionally large degree	12	24.0
Total	50	100.0

As illustrated, 46% of the respondents indicated that social connection disorders influenced the students' academic achievement to a large degree, 24% to an exceptionally large degree, 18% to a moderate degree, 8% to a small degree and 4% to an extremely limited degree. This implies that social connection disorders influenced the students' academic achievement to a great extent.

4.6.4 Agreement level on statements relating to social connection disorders

The participants were also asked to indicate level of agreement with statements related to social connection disorders. As presented in Table 4.8, a significant majority of the respondents agreed with the following statements: feeling lonely or isolated caused students with social connection issues to lose focus on their schoolwork (mean score of 4.48), the fear of being judged by others affected students with social connection

problems (mean score of 4.40). Moreover, respondents agreed that students with social connection issues tended to avoid interactions with their peers (mean score of 4.38) and had a fear of embarrassing situations (mean score of 4.32). Furthermore, they acknowledged that some students faced difficulties in accepting support from teachers and others, which affected their academic performance (mean score of 4.28), and the influence of student peers on decision-making also impacted their academic work (mean score of 4.14).

Table 4.8: Agreement level on statements relating to social connection disorders

Statements	Mean	Std. Dev
Students with social connection issues avoid interactions with their peers	4.38	.602
The influence of student peers on their decision making affects their academic work	4.14	.670
Some students have difficulty accepting support from teachers and others which affect their academic work	4.28	.607
Feeling lonely or isolated makes the students with social connection problems lose focus on their schoolwork	4.48	.544
Students with social connection issues fear embarrassing situations	4.32	.513
Students with social connection issues fear being judged	4.40	.571

4.6.5 Other ways in which social connection issues influenced academic achievement

The researcher further enquired to identify other ways in which social connection issues influenced academic achievement. The respondents (64%) stated that most of the students with social connection issues had difficulty in communication and failed to stay on topic while conversing. They also had poor interaction with other students during workshops, contests, and symposiums. The respondents (72%) also stated that the students had minimal interaction and discussions with other learners which resulted in lowering their academic performance due to insufficient content and knowledge. Failure to attend lessons and feigning sickness as well as tearing some pages from textbooks were also cited (78%) as ways social connection issues manifested and which led to poor academic performance.

The principals (20) also stated that students who faced social connection issues missed valuable opportunities for social and intellectual growth provided by interactions with

peers such as sharing perspectives, exchanging ideas, and engaging in collaborative problem-solving; potentially limiting their overall academic development. 10 of the principals also stated that social connection issues could extend beyond the classroom and affect the study environment at home. As stated by 12 of the principals, students would struggle to create a conducive study environment or lack the emotional support necessary for effective studying. This could lead to decreased productivity, difficulties in focusing on academic tasks, and challenges in managing time effectively.

The principals (15) further stated that social connection issues eroded students' self-confidence and self-belief. The lack of positive social interactions and the experience of exclusion or rejection contributed to feelings of inadequacy or self-doubt. A decline in self-confidence could hinder academic performance, as students question their abilities and hesitate to take academic risks or seek help when needed.

4.7 Self-esteem disorders and academic achievement

4.7.1 Cases of self-esteem disorders among the students

The researcher also enquired on whether there had been cases of self-esteem issues among the students in the school. As demonstrated in figure 4.5, the majority (98%) of the respondents agreed that indeed there had been cases of self-esteem issues among the students while 2% stated otherwise. This illustrates that indeed self-esteem issues were manifest among the students.

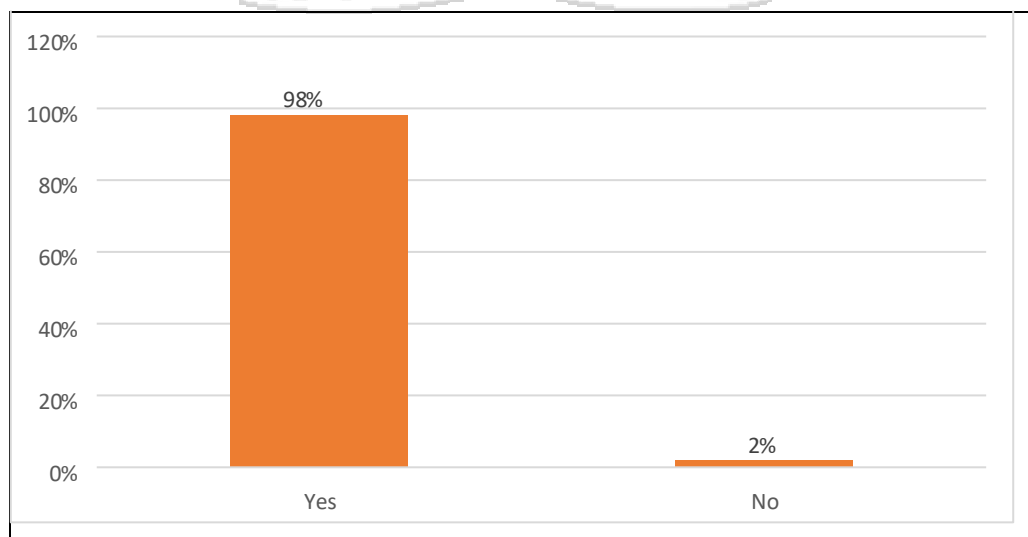


Figure 4.5: Cases of self-esteem among the students

4.7.2 Some of the self-esteem symptoms witnessed

The study further sought to establish some of the symptoms of self-esteem issues that had been witnessed among the students in the schools. Most (54%) of the respondents indicated that some of the symptoms witnessed included emotional outbursts, overcompensation (either too silent or too loud), blaming themselves when things go wrong, saying negative things about themselves and being critical about self. 68% of the respondents also indicated that the students would comment that other people were better than them, which indicated that they did not believe in their ideas and thoughts and resulted in lack of confidence when making a presentation in class. They would also resist accepting responsibility of leadership roles.

4.7.3 Extent that self-esteem issues influenced academic achievement

Figure 4.6 presents findings on the degree which the self-esteem issues influenced the students' academic achievement. The data reveals that self-esteem issues had a significant impact on the academic achievement of the students. Specifically, 34% of the respondents indicated that self-esteem problems exerted an exceptionally considerable influence on academic achievement, 38% reported a considerable influence, 24% noted a moderate influence, while only 2% expressed a small degree of influence and a very limited degree of influence. These findings highlight the substantial influence of self-esteem issues on academic achievement.

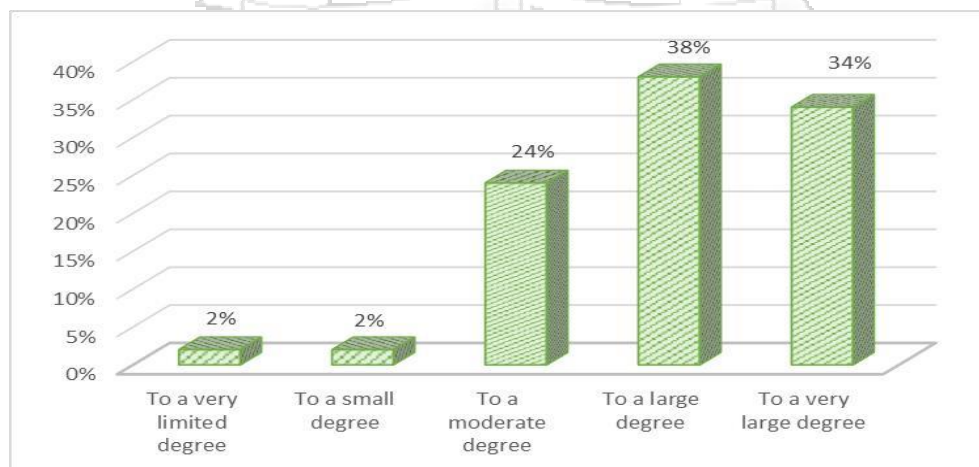


Figure 4.6: Extent that self-esteem issues influenced academic achievement

4.7.4 Agreement level on statements relating to self-esteem issues

Table 4.9 illustrates findings on the respondents' agreement level on statements relating to self-esteem issues.

Table 4.9: Agreement level on statements relating to self-esteem issues

Statements	Mean	Std. Dev
Students with low self-esteem keep to themselves because they feel they are not liked by other people	4.26	.723
Students with low self-esteem assume a submissive tone when in a group	4.08	.601
Students with low self-esteem like bragging excessively about their achievements	3.46	1.417
Students with low self-esteem feel that their parents and teachers expect too much from them	3.90	.789
Students with low self-esteem have difficulty accepting their weaknesses as well as strengths	4.08	.724
A positive self-esteem is crucial in maintaining academic performance among students	4.36	.525
Students with self-esteem issues have difficult in coping with others	4.30	.580

As evidenced by mean scores of 4.36 and 4.30 respectively most of the respondents agreed that a positive self-esteem is crucial in maintaining academic performance among students and that students with self-esteem issues had difficulty in coping with others. Additionally, as shown by mean scores of 4.26 and 4.08 and 4.08 respectively, the respondents agreed that students with low self-esteem kept to themselves because they felt they were not liked by other people, assume a submissive tone when in a group and had difficulty accepting their weaknesses as well as strengths. The respondents also agreed that students with low self-esteem felt that their parents and teachers expected too much from them, but most were neutral on the statement that students with low self-esteem liked bragging excessively about their achievements, as illustrated by mean scores of 3.90 and 3.46, respectively.

4.7.5 Other ways in which self-esteem issues influenced academic achievement

The respondents were also requested to state other ways in which self-esteem issues influenced academic achievement in the schools. Most (68%) of the respondents stated that students with low self-esteem had poor participation in school programs. 52% of the respondents stated that students with high self-esteem were outgoing and did not

hesitate to ask for clarification from teachers in learning areas that troubled them. Conversely, 88% of the respondents stated that students with low self-esteem kept to themselves and therefore did not learn many things leading to low performance. Additionally, 74% of the respondents stated that the students failed to form meaningful friendships and always engaged in inappropriate relationships because they thought they would not be accepted. The inappropriate relationships led to inferior performance in academic work. Moreover, the students doubted their ability to succeed and did not believe in their strengths or did not know their strengths, hence wasted their potential.

4.8 Academic achievement

4.8.1 Agreement level on statements relating to academic achievement

Table 4.10 illustrates the findings on statements about academic achievement. Most of the respondents agreed that grade scores had significantly dropped among the students as shown by a mean score of 4.08. Additionally, the respondents agreed that there had been low school attendance rates and drop-out cases had been increasing significantly in the school as shown by mean scores of 3.82 and 3.82, respectively. The respondents also agreed that the schools did very well in co-curricular activities as evidenced by a mean score of 3.70 but were neutral on the statement that academic performance in KCSE of the school students had registered a decline for several years.

Table 4.10: Agreement level on statements relating to academic achievement

Statements	Mean	Std. Dev
Grade scores have significantly dropped among the students.	4.08	.829
There have been low school attendance rates	3.82	1.004
The drop-out cases have been increasing significantly in the school.	3.82	1.024
Academic performance in KCSE of our school students has registered a decline for several years.	3.44	1.296
Our school does very well in co-curricular activities	3.70	1.015

4.8.2 Other ways in which Academic Achievement had been affected

The respondents were also requested to list other ways in which academic achievement in the school had been affected. 86% of the respondents indicated that mental health issues could make it challenging for students to manage their time effectively or stay

organized. Procrastination, lack of motivation, and difficulties with planning and prioritizing tasks resulted in missed deadlines, incomplete assignments, and poor academic performance. 96% of the respondents also indicated that early marriages led to school drop-out and teenage pregnancies affect academic performance due to the demanding roles of motherhood.

The respondents (88%) further stated that extreme drought made students drop out of school due to hunger and lack of school fees. This coupled with lack of security at home negatively affected school performance. Students were emotionally disturbed by the insecurity in the area which sometimes affected their families. 66% of the respondents also stated that the school academic performance had been affected by the low entry behaviour (marks) of the students and lack of enough resources in the school.

4.9 Inferential analysis

4.9.1 Coefficient of correlation

To determine strength of the relationship between variables examined in the study and to present findings, the researcher employed Pearson's coefficient of correlation (R). The specific values of the correlation coefficients are displayed in Table 4.11.

Table 4.11: Coefficient of correlation

		Academic Achievement	Anxiety Disorders	Depression	Social Connection Disorders	Self-Esteem Disorders
Academic achievement	Pearson Correlation Sig. (2-tailed)	1				
Anxiety disorders	Pearson Correlation Sig. (2-tailed)	-.6520 .0032	1			
Depression	Pearson Correlation Sig. (2-tailed)	-.7460 .0041	.3421 .0014	1		
Social connection disorders	Pearson Correlation Sig. (2-tailed)	-.6150 .0030	.1240 .0120	.0621 .0043	1	
Self-esteem disorders	Pearson Correlation Sig. (2-tailed)	-.6070 .0044	.3420 .0031	.0000 1.000	.1660 .0031	1

From the study findings as shown in table 4.11, it was clear that there was a negative correlation between academic achievement and anxiety disorders as shown by a correlation figure of 0.652. This implies that the more a student has anxiety disorders the less academic achievement. It was also clear that there was a negative correlation between academic achievement and depression with a correlation figure of 0.7460 which also means that the more a student has depression the less academic achievement. There was also a negative correlation between academic achievement and social connection disorders with a correlation value of 0.615 and a negative correlation between academic achievement and self-esteem disorders as shown by a value of 0.607. This implies that the more a student has social connection disorders and self-esteem disorders, the less academic achievement.

4.9.2 Coefficient of determination

The coefficient of determination provides an understanding of how much of the variance in the dependent variable (academic achievement) can be accounted for by changes in the independent variables (anxiety disorders, depression, social connection, and self-esteem). It represents the percentage of the variation in the dependent variable that can be explained by the collective influence of these four independent variables. The four independent variables examined in this study account for 83.4 percent of the students' academic achievement, as indicated by the adjusted R². Consequently, the remaining 16.6 percent of the academic achievement can be attributed to factors not addressed in this research. Hence, it is recommended that further investigation be conducted to explore the other factors (16.6 percent) that influence academic achievement.

Table 4.12: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.913	0.834	0.751	0.4538

4.9.3 Regression coefficient

A simple regression analysis was conducted to examine the relationship between academic achievement and the four independent variables. According to the SPSS generated table 4.12, the regression equation is presented as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Based on the table, the specific values for the regression equation are as follows:

$$Y = 1.308 - 0.731X_1 - 0.785X_2 - 0.613X_3 - 0.596X_4$$

This regression equation indicates that when all factors (anxiety disorders, depression, social connection, and self-esteem) are held constant at zero, the predicted academic achievement for the students would be 1.308. The findings presented also shows that taking all other independent variables at zero, a unit increase in anxiety disorders will lead to a 0.731 decrease of students' academic achievement; a unit increase in depression will lead to a 0.785 decrease of students' academic achievement; a unit increase in social connection disorders will lead to a 0.613 decrease in students' academic achievement and a unit increase in self-esteem disorders will lead to a 0.596 decrease in students' academic achievement. This means that students' academic achievement was affected most by depression followed by anxiety disorders, then social connection disorders while self-esteem disorders contributed the least to students' academic achievement.

With a significance level of 5% and a confidence level of 95%, the statistical analysis revealed that self-esteem disorders exhibited a significance level of 0.0268, social connection disorders had a significance level of 0.0246, anxiety disorders had a significance level of 0.0225, and depression had a significance level of 0.0201. Consequently, depression emerged as the most significant factor since all these factors demonstrated a level of significance lower than 0.05. This implies that all the four independent variables (anxiety disorders, depression, social connection disorders and self-esteem disorders) significantly affected the dependent variable (students' academic achievement).

Table 4.13: Regression coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.308	1.342		1.623	0.357
Anxiety disorders	-0.731	0.310	0.172	2.098	.0225
Depression	-0.785	0.156	0.210	3.532	.0201
Social connection disorders	-0.613	0.322	0.067	3.542	.0246
Self-esteem disorders	-0.596	0.245	0.148	4.342	.0268

4.10 Skills for a student to have a successful educational experience

The principals were requested to indicate skills that were important for a student to have a successful educational experience. 18 of them stated that the students would need effective communication skills which encompass both verbal and written communication. 15 of the principals stated that students who can express themselves clearly, listen actively, and articulate their thoughts and ideas effectively are better equipped to engage in classroom discussions, collaborate with peers, and communicate with teachers and other individuals. 14 of the principals also stated that students would need time management skills, which would be crucial for students to balance academic responsibilities, extracurricular activities, and personal commitments. Students who can effectively manage their time can prioritize tasks, meet deadlines, and create a healthy work-life balance, reducing stress and enhancing productivity.

In addition, 19 of the principals stated that collaboration and teamwork skills were essential for students to work effectively with others. They stated that students who can collaborate, contribute ideas, listen to diverse perspectives, and resolve conflicts are better prepared to work on group projects, participate in discussions, and develop strong interpersonal relationships. 12 of the principals further indicated that students who are resilient can cope with academic pressures, setbacks, and failures, persist in the face of difficulties, and view challenges as opportunities for growth.

According to 17 principals, it was expressed that students require emotional intelligence, which encompasses the ability to identify and regulate their own emotions, as well as to comprehend and show empathy towards others. Students with strong emotional intelligence can regulate their emotions, build positive relationships, and navigate social situations effectively, fostering a supportive and inclusive learning environment.

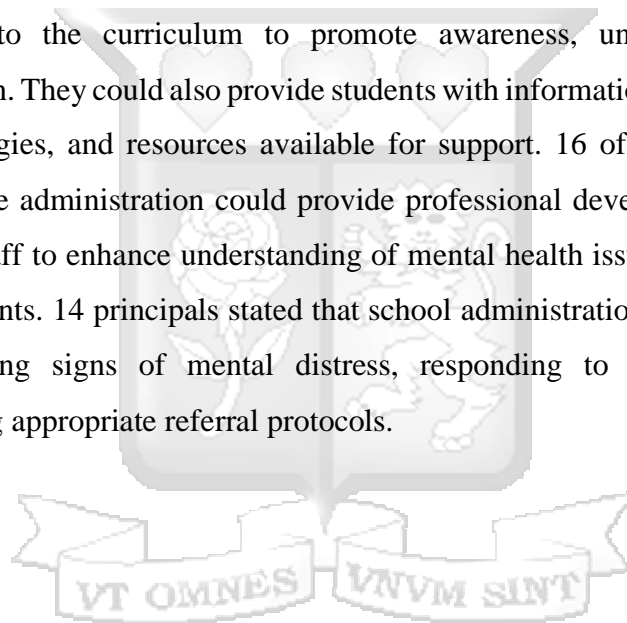
4.11 Measures the school administration can take to improve the student's academic performance

The principals were further requested to state measures which the school administration could take to improve the student's academic performance.

“We hold weekly mental awareness sessions with the students. The sessions alert students to symptoms of anxiety disorders, prevention, or management. This information enables them to help each other through such periods and seek help”.

“We have created an open-door policy for counselling sessions, which encourages students to see the counsellors based on need. We also sponsor training for guidance and counselling teachers to ensure they are well equipped with recent skills and knowledge”.

Some of the principals have already demonstrated current measures to tackle the issue. Based on the qualitative data, all principals expressed a desire for continuous improvement. 19 of them indicated that the schools could integrate mental health education into the curriculum to promote awareness, understanding, and destigmatization. They could also provide students with information about mental health, coping strategies, and resources available for support. 16 of the principals further stated that the administration could provide professional development opportunities for school staff to enhance understanding of mental health issues and their ability to support students. 14 principals stated that school administrations could offer training on recognizing signs of mental distress, responding to crisis situations, and implementing appropriate referral protocols.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, a comprehensive overview of the data findings concerning the correlation between student mental health and academic achievement in secondary schools in Samburu County is presented. Additionally, conclusions and recommendations derived from the findings are outlined. The chapter is organized into sections, including a summary of the findings, conclusions, recommendations, and suggestions for future research.

5.2 Summary of findings

5.2.1 Anxiety disorders and academic achievement

The study established that there were cases of anxiety disorders among the students in the schools. Some of the symptoms witnessed included avoidance of exams, nervousness, excessive sweating, poor hygiene, withdrawal from others, trembling and panic attacks were some of the symptoms of anxiety disorders that they had witnessed. Students with anxiety disorders exhibited avoidance behaviours to escape situations that trigger their anxiety. This included avoiding social events, public speaking, participating in class discussions, and situations that involve academic challenges.

The study also established that anxiety disorders influenced the students' academic achievement. This agreed with the findings of Legesse (2017), which indicated that students' anxiety was significantly and inversely correlated with their academic performance. This was affirmed by the current study's finding of a negative correlation between academic achievement and anxiety disorders. Excessive anxiety among the students had resulted in poor school performance and anticipation of exams frustrated and made the students with anxiety disorders feel depressed. Anxiety disorders had led students to substance abuse which affected their studies. Additionally, students with anxiety disorders had poor consultation with other students and teachers leading to deficient performance.

5.2.2 Depression and academic achievement

The study revealed that there was an existence of depression cases among the students. Some of the symptoms of depression that had been witnessed included poor concentration in class and students always sleeping during lessons and showing signs of fatigue. Students with depression were also always sneaking out of school to smuggle in drugs. The study further revealed that depressive disorders led to persistent fatigue and a general lack of energy. Students would feel physically and mentally exhausted, making it difficult for them to engage fully in their academic work or participate in daily activities. The study showed that depression influenced academic achievement. This finding concurred with Khurshid, et al., (2015) who established that depression has a harmful effect on students' academic performance, resulting in a negative correlation between the two variables. Depression interfered with the daily life of the students leading to deficient performance. Poor academic performance had also led to students becoming more depressed.

The study further revealed that truancy in the schools led to inferior performance and depression had led to poor teacher learner relationships which affected the students' performance. The depressed students also showed disinterest in pursuing passions and planning and affected decision making and judgement. This concurred with the finding of Khurshid, et al., (2015) further established that students who experienced a general sense of discontent struggled to feel motivated and engaged in their academic work. Difficulties with concentration, motivation, and engagement, coupled with reduced productivity and impaired cognitive abilities, resulted in lower test scores, incomplete assignments, and overall reduced academic achievement.

5.2.3 Social connection disorders and academic achievement

The study revealed that there had been cases of social connection disorders among the students in the schools. Some of the symptoms of social connection disorders that had been witnessed included, looking lonely and keeping quiet most of the time to an extent of being labelled the silent one by other students. This agreed with Ibiene (2018) who established that students with social anxiety disorder are always isolated from others and struggle to form meaningful relationships with their peers, leading to a lack of social support and potential feelings of loneliness and sadness. The study further revealed that the students did not answer questions during class as they

perceived answers as having low weight which was in concurrence with Babirye (2019) finding that social isolation can make it harder to participate in group projects, class discussions, or extracurricular activities, all of which can contribute to academic success.

The students also did not attempt to consult teachers and other students on difficult and challenging problems. Social connection disorders thus influenced the students' academic achievement to a great extent. This was contrary to the finding of Tayag and Gonzales (2021) who found no correlation between social anxiety and students' academic performance. It was however in line with the finding of Ibiene (2018) whose study showed that social anxiety disorder had a significant effect on the academic performance of the students. The feeling of loneliness or being isolated made the students with social connection problems lose focus on their schoolwork and they feared being judged. The study established that some students had difficulty accepting support from teachers and others which affected their academic work and that the influence of student peers on their decision making affected their academic work.

Failure to attend lessons and feigning sickness as well as tearing some pages from textbooks were also found to be ways social connection issues manifested and which led to poor academic performance. Additionally, the study found that students who faced social connection issues missed valuable opportunities for social and intellectual growth provided by interactions with peers such as sharing perspectives, exchanging ideas, and engaging in collaborative problem-solving; potentially limiting their overall academic development. Moreover, a decline in self-confidence resulting from social connection issues could hinder academic performance, as students question their abilities and hesitate to take academic risks or seek help when needed.

5.2.4 Self-esteem disorders and academic achievement

The study established that there had been cases of self-esteem issues among the students. Some of the symptoms witnessed included: emotional outbursts, overcompensation (either too silent or too loud), blaming themselves when things go wrong, saying negative things about themselves and being critical about self. The study also found that the students would comment that other people were better than them, which indicated that they did not believe in their ideas and thoughts and resulted

in lack of confidence when making a presentation in class. This was in line with Arshad, Zaidi, and Mahmood (2018), who established that students who felt comfortable expressing their opinions contributed to class discussions and shared their thoughts and ideas with their peers and teachers. They would also resist accepting responsibility for leadership roles.

It was revealed that self-esteem issues had a major influence on academic achievement. This agreed with the findings of Zhao, et al., (2021), which indicated that academic achievement in adolescents was significantly predicted by self-esteem. Students with low self-esteem had poor participation in school programs. This was in concurrence with Legesse (2017) who established that students who struggled with skills deficits had lower self-esteem and self-efficacy related to academics, leading to disengagement or avoidance of academic tasks. They kept to themselves and therefore did not learn many things leading to low performance. The students always engaged in inappropriate relationships which led to deficient performance in the academic work.

5.3 Conclusions

This study explored the relationship between student mental health and academic achievement in secondary schools in Samburu County. Based on the findings the study concluded that all the aspects studied, (anxiety disorders, depression, social connection, and self-esteem) had a significant inverse relationship with academic achievement. These mental health issues can lead to decreased concentration, emotional instability, and decreased motivation, all of which can interfere with academic performance. The study's findings reaffirm the importance placed on the environment by Bronfenbrenner's (1979) Ecological Systems Theory in relation to mental health. This is because Samburu County is plagued by chronic drought seasons and recurrent insecurity which could contribute to mental health issues among the youth.

Though not all intervening variables are included in this study, one can easily infer that marginalization and poverty are crucial factors that contribute to mental health issues in teenagers in Samburu County. The population in this county is at a higher risk of experiencing mental health problems due to their increased exposure and

vulnerability to negative socioeconomic and environmental conditions compared to the general population. The effects of poverty and marginalization in the county are likely to lead to a high prevalence and severity of mental health issues among high school students in the area. These experiences are also likely to increase stigma, trauma, and social stress, which can negatively impact the psychological well-being and outcomes of the students. Addressing the underlying environmental factors, such as drought and insecurity, is important for improving the mental health and academic achievement of secondary school students in the County. Additionally, providing resources and support to alleviate stressors related to these factors can create a more stable and supportive environment for students to thrive in.

5.4 Recommendations

5.4.1 Recommendation for Policy

The government should increase the schools' mental health resources, such as school counsellors and mental health professionals, to ensure that students have access to the support they need. This includes providing mental health services during and after school hours and training teachers to identify students who may need mental health support. The Ministry of Education should include mental health education as part of the secondary school curriculum to increase awareness of mental health and reduce stigma surrounding it. This education can also help students learn how to identify and manage stress, anxiety, and how to seek help.

5.4.2 Recommendation for Practice

Based on the findings, the study recommended that the schools should foster positive peer relationships and encourage students to form supportive social networks. They should create opportunities for collaboration, teamwork, and inclusive activities that promote a sense of community and belonging among students. They should also establish peer support programs where trained students provide support to their peers. Peer support programs can include peer mentoring, peer counselling, or buddy systems, fostering a sense of belonging and reducing feelings of isolation.

The schools should also implement mental health screening programs to identify students who may be at risk or in need of additional support. Screening tools can help

identify students experiencing mental health challenges and enable timely intervention and referral for appropriate services.

The schools should also incorporate activities that promote emotional well-being and stress reduction into the school day. This can include mindfulness exercises, relaxation techniques, or social-emotional learning programs that focus on building resilience, self-awareness, and emotional regulation skills.

As the principals suggested, the schools through the board of management should provide professional development opportunities for school staff to enhance their understanding of mental health issues and their ability to support students. Offer training on recognizing signs of mental distress, responding to crisis situations, and implementing appropriate referral protocols.

Schools should also establish partnerships with community mental health organizations and agencies to expand the range of support services available to students. They should collaborate with external providers to offer workshops, counselling services, or mental health awareness campaigns.

5.5 Areas for Further Research

Further studies should be conducted to investigate the risk factors and protective factors associated with student mental health and academic achievement. The studies should explore factors like family dynamics, socio-economic status, school environment, peer relationships, and culture that may influence students' mental well-being and academic performance. They should investigate how cultural beliefs, values, and practices shape students' experiences, coping mechanisms, and help-seeking behaviours, and mental health.

Further studies should also be conducted to compare the relationship between student mental health and academic achievement in secondary schools with other counties in Kenya. These studies should explore similarities, differences, and contextual factors that contribute to variations in the relationship across diverse cultural and educational settings. Longitudinal studies should also be conducted to examine the long-term effects of student mental health on academic achievement. Follow a cohort of students

over an extended period to understand the trajectory of mental health issues and their impact on educational outcomes.



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APPENDICES

Appendix I: Research Questionnaire for the Guidance and Counselling Teachers

Thank you for consenting to participate in this assessment survey. Kindly indicate your response by checking the relevant box or filling in the provided space. Please note that any information you provide will not be utilized to subject you to any form of harassment and will be solely utilized for academic purposes.

Part A: Background Information

1. Please indicate your Gender:

Male [] Female []

2. Age Bracket

20 years and below [] 21-25 years [] 26-30 years []
31-35 years [] 36-40 years [] 41-45 years []
Above 45 years []

3. Show the Education level attained.

Secondary School level [] College level []
Advanced diploma [] Undergraduate level []
Postgraduate level []

4. Period in the current position in the school

1- 5 years []
6- 10years []
11- 15 []
Above 15 years []

Part B: Anxiety Disorders and Academic Achievement

5. Have you had cases of anxiety disorders among the students in your school?

Yes [] No []

6. What are some of the symptoms of anxiety disorders that you have witnessed among the students in your school?

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.....
.....

.....

7. To what degree have anxiety disorders influenced the students' academic achievement?

To an extremely limited degree [] To a small degree []

To a moderate degree [] To a large degree []

To an exceptionally large degree []

8. When responding to the following statements about anxiety disorders, please utilize a rating scale of 1 to 5. Use 1 to represent "strongly disagree," 2 to represent "disagree," 3 to represent "neutral," 4 to represent "agree," and 5 to represent "strongly agree."

Statements	1	2	3	4	5
Anxiety disorders have been associated with impairment of memory among the students					
Excessive anxiety among the students have resulted to poor school performance					
Students with anxiety disorders perceive neutral situations as threats					
Anxiety disorders has led students to substance abuse which affects their studies					
Anticipating Exams frustrates and makes the students with anxiety disorders to feel depressed					
The school has training programs for teachers to identify the disorders in students					

9. Kindly list other ways in which anxiety disorders influence academic achievement in the school.

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Part C: Depression and Academic Achievement

10. Have you had cases of depression among the students in your school?

Yes []

No []

11. What are some of the symptoms of depression that you have witnessed among the students in your school?

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12. To what degree has depression influenced the students' academic achievement?

To an extremely limited degree []

To a small degree []

To a moderate degree []

To a large degree []

To an exceptionally large degree []

13. When responding to the following statements about depression, please utilize a rating scale of 1 to 5. Use 1 to represent "strongly disagree," 2 to represent "disagree," 3 to represent "neutral," 4 to represent "agree," and 5 to represent "strongly agree."

Statements	1	2	3	4	5
There have been suicide attempts by students suffering from depression					
Students with depression have depicted general discontent with everything					
Students with depression have shown irritability and are always irritated by anything					
Poor academic performance has also led to students becoming depressed					
Depression interferes with daily life of the students leading to deficient performance					

Students with depression spend a lot of time out of school receiving treatment, which affects performance					
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14. Kindly list other ways in which depression influence academic achievement in the school.

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Part D: Social Connection and Academic Achievement

15. Have you had cases of social connection disorders among the students in your school?

Yes [] No []

16. What are some of the symptoms of social connection disorders that you have witnessed among the students in your school?

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.....

.....

17. To what degree has the social connection disorders influenced the students' academic achievement?

To an extremely limited degree [] To a small degree []
 To a moderate degree [] To a large degree []
 To an exceptionally large degree []

18. When responding to the following statements about social connection disorders, please utilize a rating scale of 1 to 5. Use 1 to represent "strongly disagree," 2 to represent "disagree," 3 to represent "neutral," 4 to represent "agree," and 5 to represent "strongly agree."

Statements	1	2	3	4	5
Students with social connection issues avoid interactions with their peers					
The influence of student peers on their decision making affects their academic work					

Some students have difficulty accepting support from teachers and others which affect their academic work					
Feeling lonely or isolated makes the students with social connection problems lose focus on their schoolwork					
Students with social connection issues fear embarrassing situations					
Students with social connection issues fear being judged					

19. Kindly list other ways in which social connection disorders influence academic achievement in the school.

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.....
.....

Part E: Self-esteem and Academic Achievement

20. Have you had cases of self-esteem issues among the students in your school?

Yes [] No []

21. What are some of the symptoms of self-esteem issues that you have witnessed among the students in your school?

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.....
.....

22. To what degree has self-esteem issues influenced the students' academic achievement?

To an extremely limited degree [] To a small degree []
To a moderate degree [] To a large degree []
To an exceptionally large degree []

23. When responding to the following statements about self-esteem issues, please utilize a rating scale of 1 to 5. Use 1 to represent "strongly disagree," 2 to represent "disagree," 3 to represent "neutral," 4 to represent "agree," and 5 to represent "strongly agree."

Statements	1	2	3	4	5
Students with low self-esteem keep to themselves because they feel they are not liked by other people					
Students with low self-esteem assume a submissive tone when in a group					
Students with low self-esteem like bragging excessively about their achievements					
Students with low self-esteem feel that their parents and teachers expect too much from them					
Students with low self-esteem have difficulty accepting their weaknesses as well as strengths					
A positive self-esteem is crucial in maintaining academic performance among students					
Students with self-esteem issues have difficult in coping with others					

24. Kindly list other ways in which self-esteem issues influence academic achievement in the school.

.....

.....

.....

.....

Part F: Academic Achievement

25. When responding to the following statements about academic achievement, please utilize a rating scale of 1 to 5. Use 1 to represent "strongly disagree," 2 to represent "disagree," 3 to represent "neutral," 4 to represent "agree," and 5 to represent "strongly agree."

Statements	1	2	3	4	5
Grade scores have significantly dropped among the students					
There have been low school attendance rates					

The drop-out cases have been increasing significantly in the school					
Academic performance in KCSE of our school students has registered a decline for several years					
Our school does very well in co-curricular activities					

26. Kindly list other ways in which academic achievement in the school has been affected.

.....

.....

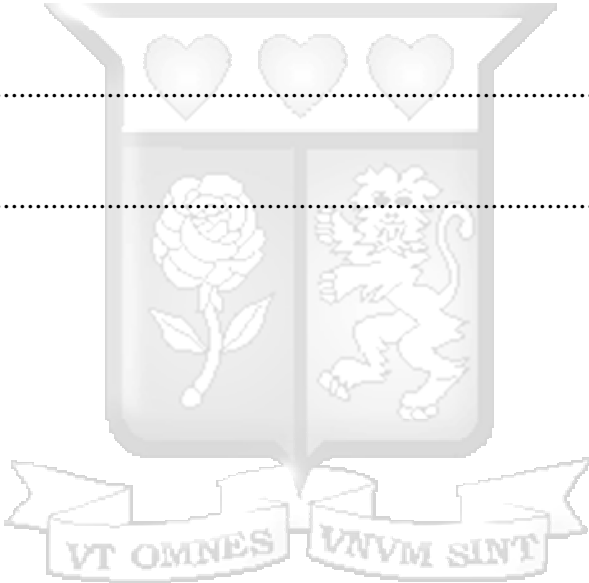
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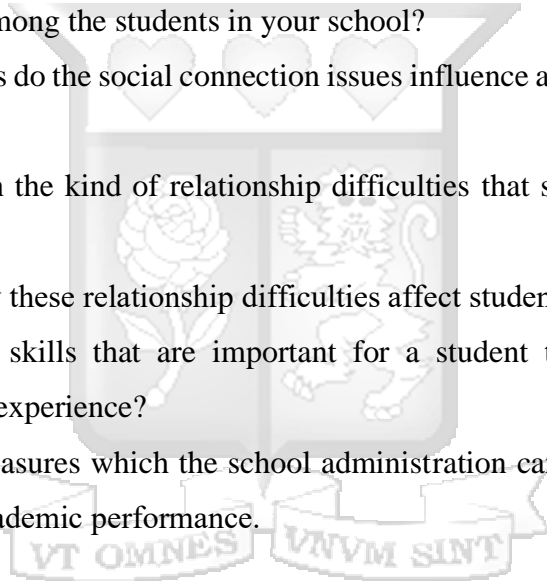
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Appendix II: Interview Schedule for the Principals

1. What are some of the symptoms of anxiety disorders that you have witnessed among the students in your school?
2. In what ways do anxiety disorders influence academic achievement in school?
3. Explain the emotional challenges that students in the school face.
4. How do these emotional challenges affect their academic performance?
5. What are some of the symptoms of depressive disorders that you have witnessed among the students in your school?
6. In what ways does depression influence academic achievement in school?
7. What are some of the symptoms of social connection issues that you have witnessed among the students in your school?
8. In what ways do the social connection issues influence academic achievement in school?
9. Elaborate on the kind of relationship difficulties that students in the school face.
10. Explain how these relationship difficulties affect students' academic work.
11. Explain the skills that are important for a student to have a successful educational experience?
12. State the measures which the school administration can take to improve the student's academic performance.



Appendix III: Informed Consent for the Guidance and Counselling Teachers

PETER KIAWA MUSAU

P. O Box

Kenya

Subject: Informed Consent

Dear Guidance and Counselling Teacher,

My name is PETER KIAWA MUSAU. I am an Msc.EDM student from Strathmore University. I am currently conducting research titled "**Examining the Connection between Student Mental Well-being and Academic Performance in Secondary Schools in Samburu County, Kenya.**" The outcomes of this study have the potential to enhance education systems not only in Kenya but also in other poor countries in Africa. Consequently, improved mental healthcare services will benefit nations, communities, and individuals by providing higher quality support. This research proposal is of utmost importance in bolstering education systems, as it will generate novel insights that can guide policymakers in making evidence-based decisions.

Procedure to be followed.

To take part in this study, it will be necessary for me to inquire about certain matters from you. The information you provide will be recorded in a questionnaire check list. The questionnaire will be self-administered to you at your place of work or conveniently through e-mail depending on your preferred mode. The questions asked relates to the student's mental health issues and their academic achievement.

You have the option to decline involvement in this study. There will be no negative consequences or mistreatment if you choose not to participate, and your decision will not be held against you or impact your employment situation. It is important to note that participating in the study is entirely voluntary. You are welcome to ask any study-related questions at any point. You have the right to refuse to answer any questions and can end the interview at any time. Furthermore, you are free to withdraw from the study at any time without experiencing any adverse effects on the services you receive. The interview is anticipated to take approximately 30 minutes to finish.

Discomforts and risks.

Certain questions in this study may address personal and sensitive topics that could potentially cause embarrassment or discomfort. If this happens; you may refuse to answer if you choose. I will also offer a break from the data collection process which will allow you to take some time to relax. After the study, I intend to schedule a debriefing session to allow you to express any concerns or emotions that you may have experienced. This will help you to process your feelings and reduce the risk of distress. You may also stop the interview at any time.

Rewards

There is no reward for anyone who chooses to participate in the study.

Confidentiality

The interviews will be conducted in a secluded setting at the school, ensuring confidentiality. Your name will not be linked to the questionnaire, and the questionnaires themselves will be securely stored at the University. The data collected in this study will be utilized solely for research purposes. The study findings may be published in academic journals; however, all data will be presented in a way that preserves anonymity, with individual participants not being identified. Furthermore, the results may be shared with other researchers for additional analysis on the subject. Your data will be stored on a password-protected computer, accessible only to the researcher and supervisors. Strict confidentiality measures will be implemented, ensuring that all data remains anonymous. Your participation in the study will not be disclosed to anyone without your explicit consent, unless required by law.

Contact Information

If you have any questions, you may contact the following supervisors:

1.....2..... Dr.

Participant’s Statement

I understand the information provided regarding my participation in the study. I have had the opportunity to seek clarification and all my questions have been adequately addressed. I acknowledge that my involvement in this study is entirely voluntary. I understand that my personal information will remain confidential, and I retain the

right to withdraw from the study at any time. I am aware that I will not face any negative repercussions at my workplace, regardless of my decision to continue or discontinue participation, and my treatment at work will not be affected.

Participant's Name: [.....]

Date: [.....]

Signature: [.....]

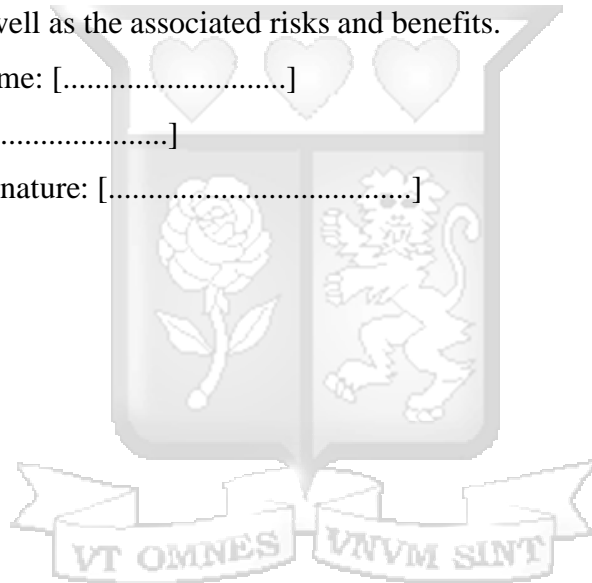
Investigator's Statement

I, the person conducting the interview, have provided a clear explanation to the volunteer in a language that they comprehend regarding the procedures to be followed in the study, as well as the associated risks and benefits.

Interviewer's Name: [.....]

Date: [.....]

Interviewer's Signature: [.....]



Appendix IV: Informed Consent form for the principals

PETER KIAWA MUSAU

P. O Box

Kenya

Subject: Informed Consent

Dear Principal,

You are invited to participate in a research study that aims to investigate the **Relationship between Student Mental Health and Academic Achievement in Secondary Schools in Samburu County**. Peter Kiawa Musau is conducting the study, and I'm seeking your consent to participate as a research participant.

Purpose and Procedures of the Study

The purpose of this study is to investigate the relationship between student mental health and academic achievement in secondary schools. As a participant in this study, you will be asked to report on student mental health and academic achievement in your school. The questions asked therefore relates to the student's mental health issues and their academic achievement. The researcher will administer the interview in person. The interview will take approximately 30 minutes to complete.

Risks and Benefits

There are no anticipated risks associated with participating in this study. However, it is possible that you may experience some discomfort or inconvenience in answering the interview questions. If this happens; you may refuse to answer if you choose. I will also offer a break from the data collection process which will allow you to take some time to relax. After the study, I intend to schedule a debriefing session to allow you to express any concerns or emotions that you may have experienced. This will help you to process your feelings and reduce the risk of distress.

The potential benefits of participating in this study include contributing to the knowledge base on student mental health and academic achievement in secondary schools.

Confidentiality

All responses to the interview will be kept confidential and anonymous. Your participation in the study will not be disclosed to anyone without your permission. The data collected in this study will be used for research purposes only. The findings of the study may be published in academic journals. However, all data will be reported in an aggregate form and individual participants will not be identified. Additionally, the results may be shared with other researchers who wish to conduct further analysis on the topic. Your data will be stored on a password-protected computer and will only be accessible to the research team. All data will be kept confidential and anonymous. Your participation in the study will not be disclosed to anyone without your permission, except as required by law.

Voluntary Participation

Your participation in this study is voluntary. You have the right to withdraw at any time without penalty or loss of benefits. Your decision to participate or not to participate will not affect your employment or relationship with the school or the researcher.

Contact Information

If you have any questions or concerns about this study, you can contact Peter Kiawa Musau on 0723897772. If you have any questions or concerns about your rights as a research participant, you can contact the Strathmore University Institutional Scientific and Ethical Review Committee (ISERC).

Consent

I have read the above information and understand the nature of this study. I voluntarily consent to participate in this study and acknowledge that I may withdraw my consent at any time.

Date: _____

Appendix V: Other Instruments used to Measure Mental Health

i. Positive Mental Health Instrument

	Mean	SD	Min	Max
PMH Instrument				
Total Positive Mental Health	4.54	0.69	2.89	6.00
General Coping	4.54	0.84	2.00	6.00
Emotional Support	4.89	0.83	1.71	6.00
Spirituality	4.02	1.58	1.00	6.00
Personal Growth and Autonomy	4.60	0.84	2.20	6.00
Interpersonal Skills	4.65	0.71	2.56	6.00
Global Affect	4.61	0.84	2.00	6.00
Job Satisfaction	7.16	1.56	1.00	10.00

ii. Opinions about Mental Illness Scale

Attitude Scale for Mental Illness

(A modified version of the questionnaire, Opinions about Mental Illness in the Chinese Community (OMICC) (Ng & Chan, 2000)).

Legend for Questionnaire:

- S** - Separatism
- St** - Stereotyping
- R** - Restrictiveness
- B** - Benevolence
- P** - Pessimistic prediction
- Stig** - Stigmatization

1. (S) People with mental illness have unpredictable behavior.
 - a. Totally disagree
 - b. Almost totally disagree
 - c. Sometimes agree
 - d. Almost totally agree
 - e. Totally agree
2. (S) If people become mentally ill once, they will easily become ill again.
 - a. Totally disagree
 - b. Almost totally disagree
 - c. Sometimes agree
 - d. Almost totally agree
 - e. Totally agree
3. (S) If a mental health facility is set up in my street or community, I will move out of the community.
 - a. Totally disagree
 - b. Almost totally disagree
 - c. Sometimes agree
 - d. Almost totally agree
 - e. Totally agree
4. (S) Even after a person with mental illness is treated, I would still be afraid to be around them.
 - a. Totally disagree
 - b. Almost totally disagree
 - c. Sometimes agree
 - d. Almost totally agree
 - e. Totally agree
5. (S) Mental patients and other patients should not be treated in the same hospital.
 - a. Totally disagree
 - b. Almost totally disagree
 - c. Sometimes agree
 - d. Almost totally agree
 - e. Totally agree

iii. Recovery Attitudes Questionnaire (RAQ-7)

<i>Items</i>	<i>Factor loading</i>
1. People in recovery sometimes have setbacks	0.24
2. To recover requires faith	0.25
3. Stigma associated with mental illness can slow down the recovery process	0.37
4. Recovery can occur even if symptoms of mental illness are present.	0.59

iv. Clinicians' Attitudes Scale (MICA)

Mental Illness: Clinicians' Attitudes Scale

MICA-4

Note to researchers distributing this scale: please only use after reading instructions in "Manual for Researchers".

Instructions: for each of questions 1-16, please respond by **ticking one box only**. Mental illness here refers to conditions for which an individual would be seen by a psychiatrist.

		Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree
1	I just learn about mental health when I have to, and would not bother reading additional material on it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	People with a severe mental illness can never recover enough to have a good quality of life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Working in the mental health field is just as respectable as other fields of health and social care.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	If I had a mental illness, I would never admit this to my friends because I would fear being treated differently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	People with a severe mental illness are dangerous more often than not.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- v. Attribution Questionnaire
- vi. Mental Health Knowledge Schedule
- vii. Focus group Discussions

viii. Observation checklist



Appendix VI: Strathmore Ethical Approval



17th March 2023

Mr Musau Peter Kiawa,
peter.kiawa@strathmore.edu

Dear Mr Musau,

RE: Relation between Student Mental Health and Academic Achievement in Secondary Schools in Samburu County, Kenya

This is to inform you that SU-ISERC has reviewed and approved your above SU- master's research proposal. Your application reference number is SU-ISERC1629/23. The approval period is from 17th March 2023 to 16th March 2024.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 48 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 48 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to SU-ISERC.






Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,

for: **Dr Ben Ngoye,**
Secretary; SU-ISERC

Cc: Mr Ambrose Rachier,
Chairperson; SU-ISERC

Appendix VII: NACOSTI Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 681320	Date of Issue: 21/February/2023
RESEARCH LICENSE	
	
This is to Certify that <u>Fr. Peter Kiawa Musau</u> of Strathmore University, has been licensed to conduct research as per the <u>vision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Samburu on the topic: RELATION BETWEEN STUDENT MENTAL HEALTH AND ACADEMIC ACHIEVEMENT IN SECONDARY SCHOOLS IN SAMBURU COUNTY for the period ending: 21/February/2024.</u>	
License No: NACOSTI/P/23/23711	
681320	
Applicant Identification Number	Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	
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See overleaf for <u>conditions</u>	

Appendix VII: Originality Report

MUSAU P. KIAWA 125670 THESIS.pdf

ORIGINALITY REPORT

21%

SIMILARITY

INDEX

20%

5%

12%

STUDENT

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