

**INVESTIGATING HELP-SEEKING BEHAVIOURS FOR DEPRESSION
AMONG STUDENTS IN PUBLIC UNIVERSITIES : A CASE OF
KISII UNIVERSITY, KISII COUNTY, KENYA.**

BY

NYAMWANGE GIDEON ONGORI

Msc. Psychology (Walden University)

Bsc. Agriculture (University of Nairobi)

**A THESIS SUBMITTED TO THE BOARD OF POST GRADUATE STUDIES IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR CONFERMENT
OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN COUNSELLING
PSYCHOLOGY IN THE SCHOOL OF ARTS AND SOCIAL SCIENCES,
DEPARTMENT OF PSYCHOLOGY, KISII UNIVERSITY**

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Sign _____ Date _____

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Lecturer, Kisii University

Sign. _____ Date _____

Dr. Sheba Okumu, PhD

Lecturer, Daystar University

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Lecturer, Kisii University- Lead Supervisor

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DEDICATION

Dedicated to my wife, Callen, and my children, Kem and Sam, whose support and encouragement have been invaluable during this academic journey

ACKNOWLEDGEMENTS

I am deeply grateful to everyone who offered their support and guidance throughout the time I took to complete this thesis. First and foremost, I extend my gratitude to the management of Kisii University for giving me the opportunity to pursue a doctoral program and for creating an environment that nurtured academic growth and research. Their unwavering support was essential to the successful completion of my research.

Also, I sincerely appreciate the School of Arts and Social Sciences and the Department of Psychology, whose faculty and staff were instrumental in shaping this project. Their expertise, encouragement, and constructive feedback have been invaluable.

Special thanks go to my supervisors, Dr. Rose Otieno and Dr. Sheba Okumu, for their insightful feedback, continuous encouragement, and expert guidance. Their dedication greatly enhanced the direction and quality of my work. I am also indebted to the lecturers at Kisii University, especially Dr. M. Mbiriri, Dr. S. Bironga, Dr. C. Ayuya, and Dr. K. Ombui, whose commitment to excellence inspired me to strive for the highest standards in my research.

My heartfelt gratitude extend to my family, relatives, and colleagues for their unwavering support and companionship, which made this academic journey both enjoyable and rewarding. I especially wish to acknowledge Fred Opondo and Dr. Edward Moracha for their inspiration and encouragement. I am also immensely thankful to the Kisii University students who participated in my research survey. Their insights provided the essential data that formed the backbone of this research.

Finally, my deepest appreciation go to the Bio-statistician Lamek Agasa for his invaluable assistance in data analysis. His meticulous attention to detail was crucial to interpreting the results and ensuring the accuracy of this thesis. To everyone who contributed to the completion of this thesis, whether mentioned by name or not, thank you. May the Lord bless you abundantly.

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ABSTRACT

This study aimed to investigate the reasons underlying delay or avoidance of help-seeking behaviours among university students. The study was conducted at Kisii University's main campus and its specific objectives were to assess the prevalence of depression, examine disparities in help-seeking behaviours, evaluate factors that promote help-seeking behaviours, and identify significant barriers to help-seeking behaviours. The study utilized two theoretical models—Beck's Cognitive Theory (BCT) and the Theory of Planned Behaviour (TPB) to understand why university students remain the least likely to seek help for emotional problems.

This study utilized a correlational research design to explore the reasons behind university students remaining reluctant to seek help for depression and a simple random sampling strategy to select respondents. Data collection was done using questionnaires and discussion guides from a sample of 896 undergraduates out of a total population of 18,430. Pretesting of research instruments was conducted at Kabanga University, Kericho County using 60 students aged 18-25 years. Data were analysed using both descriptive and inferential statistics, including frequency counts, cross-tabulation, t-tests, ANOVA, correlations, and regressions.

The findings revealed a high prevalence of depression, assessed at 48.8%. However, the prevalence of help-seeking behaviour was estimated at 37.8%. In addition, help-seeking behaviours were found to vary significantly according to social and demographic characteristics. Factors that facilitated help-seeking behaviour included strong social networks, attitudes towards disease while significant barriers identified were stigma, negative attitudes toward mental health, and a lack of knowledge about available resources. These findings underscore the need for targeted interventions to reduce barriers and promote help-seeking behaviours. In conclusion, this study provides valuable insights into the factors influencing help-seeking behaviours among university students and highlights the need for interventions to promote mental health support utilization. These findings contribute to a broader understanding of the benefits of help-seeking and offer a foundation for future initiatives aimed at improving student mental health services.

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ABBREVIATIONS AND ACRONYMS

ABs	Attitudinal Barriers
APA	American Psychiatric Association
ANOVA	Analysis of variance
BCT	Beck's Cognitive theory
BDI-II	Beck Depression Inventory-II
Co1	Cohort one aged between 18 -21
Co2	Cohort two aged 22-25 Years
DAQ	Demographic and Awareness questionnaire
DCIs	Data Collection Instruments
DSM-V	Diagnostic and Statistical Manual of Mental disorders 5 th Edition
DVs	Dependent Variables
FGD-G	Focus Group Discussion Guide
FYs	First Years
GOF	Goodness of fit
HICs	High Income Countries
HSB	Help-seeking Behaviour
IAHSQ	Intention and Actual Help Seeking questionnaire
IBM	International Business Machines
IVs	Independent Variables
KBs	Knowledge barriers
KSU	Kisii University
KTRH-ISERC	Kisii Teaching and Referral Hospital's Institutional scientific and Ethical research com
LICs	Low Income Countries
MH	Mental Health
MHL	Mental Health Literacy
MHS	Mental Health Services
MOH	Ministry of Health
NACOSTI	National Council for Science, Technology, and Innovation
NIMH	National Institute of Mental Health
OCHR	On-Campus in Halls of Residence

OCWFS	Off-Campus with Fellow Students
PBC	Perceived Behavioural Control
PHQ	Patient Health Questionnaire
PSQ	Participant Survey Questionnaire
SBs	Structural Barriers
SPSS	Statistical Package for Social Sciences
SRBs	Stigma Related Barriers
SYs	Second Years
TPB	Theory of planned behaviour
TYs	Third Years
WHO	World Health Organization
α	Alpha

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Depression is a complex and widespread mental health condition that frequently goes underdiagnosed and underreported. It is a serious and common disorder characterised by several symptoms including, abnormal thoughts, perceptions, emotions, behaviours, and challenges in interpersonal relationships (WHO, 2019). Plus depression has a broad global impact affecting individuals across all demographics—regardless of age, gender, or community. It is a major contributor to the overall disease burden world-wide. Furthermore, depression can lead to several consequences; significantly impairing a person’s ability to function in daily life, including at work or school (WHO, 2019). In addition, depression often leads to reduced social functioning with symptoms that tend to recur over time (Bernaras et al., 2019).

Furthermore, accumulated evidence suggests that the prevalence of depression varies significantly in terms of age (Argyropoulos et al., 2017; Singh et al., 2017); sex and gender (Awan, 2019; Wahed & Hassan, 2017). For example, depression is more prevalent among females, occurring approximately twice more frequently than in men (Brody et al., 2018; Richier-Rossler, 2017; Salk et al., 2017; Shi et al., 2021). Similarly, the prevalence of depression increases by age, peaking in older adulthood (above 7.5%) among females aged 55-74 years, compared to about 5.5% among their male counterparts (WHO, 2017).

These findings show that depression tends to be more commonly in older adults than in younger ones, highlighting a significant concern as we age. However, university students report significantly higher rates of depression—around 35% on average—compared to just 6% in the general population (Hakami, 2018; Heinig et al., 2021; Mirza et al., 2021; Ngin et

al., 2018). This is because university students have a unique cluster of stressful experiences or stressors (Saleh et al., 2017) inherent in the university environment (Saleh et al., 2017). Often, these lead to increased class absenteeism, uncompleted assignments, and missed exams. Ultimately, such students face a heightened risk of dropping out of university (Minchekar, 2018; Othman et al., 2019).

Moreover, depression varies across regions, countries and cultures (WHO, 2017); with high income countries (HICs) recording higher rates than low income countries (LICs). For instance, surveys conducted across 32 Universities in America reported a 40% prevalence (Rayelle, 2021); while those conducted in different Asian countries yielded rates ranging between 4 - 79.2% (Bakhtyari et al., 2020; Thi, 2019). The rate of depression among university students in African countries varies significantly. For instance, a study at the University of the Witwatersrand in South Africa found that 48% of students screened positive for probable depression. This is considerably higher than the global average for university students, which stands at around 21%. Additionally, a study in Ghana revealed that 24.2% of university students experienced mild depression, while 12.4% suffered from moderate to severe depression (January et al., 2018). These findings reflect a broader trend of high depression rates among university students in African, underscoring the need for targeted mental health interventions.

According to Nyongesa (2017), Kenya with nearly 1.9 million cases with depression, is ranked fifth in Africa. Since this figure accounts for hospital diagnosed cases only; it is evident that this is a somewhat conservative estimate. In a study assessing the prevalence of depression among Nairobi university students in Kenya; Othieno and colleagues estimated that 35.7%

and 5.6% in a sample of 923 students, had moderate and severe depressive symptoms. Factors such as year of study, economic deprivation, and academic performance, were found to be significantly associated with depression (Othieno et al., 2014).

Moreover, research strongly suggests the existence of a prominent treatment gap between individuals in need of help compared to those who actually receive it. This is despite the availability of effective ways to treat mental illnesses (Luitel et al., 2017). Therefore, if university students are to succeed in their academic endeavours, they must make behavioural adjustments. The critical areas include coping with psychological difficulties (Muthuuri, 2021; Ngin et al., 2018) because university students are at a higher risk of developing depression (Babajide et al., 2020; Hakami, 2018; January et al., 2018).

In Counselling and Psychology, help-seeking is an important concept. It is understood as both a coping mechanism and a learned behaviour. As a coping mechanism, the need to solicit for assistance is triggered when task demands appear to overwhelm coping abilities or resources (Lynch et al., L., 2018). However, as a learned behaviour, help-seeking attempts to obtain external assistance to deal with difficulties. Help can be sought from both formal and informal sources (Divin et al., 2018). Formal sources comprise trained MH professionals such as physicians, psychiatrists, psychologists, counsellors and healthcare social workers. Whereas; informal sources include, family members (parents, siblings, or relatives) and peers (friends, classmates, or workmates).

Research also has shown that higher levels of psychological distress normally affect help-seeking behaviour negatively, while low levels impact help-seeking behaviour positively (Nasheeda et al., 2019; Velasco et al., 2020). It is also important for individuals to negotiate

everyday challenges, in order to develop capabilities which enable them to overcome psychological distress. One such strategy is to depend on external support. Research shows that help-seeking is itself a dynamic process and an adaptive form of coping that assists in combating illness. Additionally, help-seeking is seen as a behaviour that actively pursues assistance from external sources. More importantly, help-seeking is basically a communication issue, aimed at obtaining information, advice, treatment, and general support while responding to a problem or distressing experience (Sibiya, 2018; Velasco et al., 2020; Vickery, 2021).

Although, seeking help for depression can be beneficial; the majority of persons in need remain the least likely to seek help. This is despite depression having the ability to impair the sufferer's everyday functioning and well-being (WHO, 2019). The Reasons for such behaviour are poorly understood. Likewise, little is known about the relationship between depression and help seeking behaviour; calling for better understanding of facilitators and barriers underlying depression. Findings from several studies show that nearly 20% of the young-adults globally experience depression (WHO, 2020a); yet, a majority tend to delay or avoid seeking help. This observation raises the question—why do individuals suffering depression employ the delay and avoidance coping strategy? Gaining a better understanding of such behaviour, is critical in assisting the identification of factors likely to cause delay or prevent access to treatment and assist in the formulation of effective strategies (Velasco et al., 2020).

In addition, research has shown that help seeking behaviours vary depending on country, age and gender. For example, 23 community surveys conducted in 21 countries around the globe,

assessed the rate of help-seeking. The surveys estimated the rate to range between 35–50% in HICs (Alonso et al., 2018; Magaard et al., 2017), while among LICs, the rate ranged between 10–15% (Evans-Lacko et al., 2018). As for Africa and Europe, the rates were estimated to range between 33% and 55.6% (Bifftu et al., 2018). However, Kenya’s help-seeking rate is not known, but is believed to mirror the rates for LICs.

Several studies conducted since the turn of the 21st century, have consistently demonstrated the existence of disparities in help-seeking behaviours in terms of gender and age. For instance, compared to females, males seek help and utilise Mental health services (MHS) for depressive problems less frequently across all ages (Parent et al., 2018; Rasmussen et al., 2018; Sagar-Ouriaghli et al., 2019). Low help-seeking rates observed especially among men, are often attributed to traditional masculine gender roles (Narusyte et al., 2017; Sagar-Ouriaghli et al., 2019). Moreover, men prefer fighting back their emotions as a way of covering any weakness, in order to preserve autonomy. But, it is perfectly normal for women to freely display their emotions (Seamark & Gabriel, 2018). This disparity in help-seeking behaviour between males and females is largest during the emerging adulthood stage (Flannery et al., 2018); with 26% of the males aged 16 - 29 years, reporting having common mental diseases compared to 43% for their female counterparts (Williams, 2021). Moreover, young adults often seek help more frequently from informal sources compared to older adults who seek help more often from formal sources (Magaard et al., 2017; Roberts et al, 2018).

Available evidence suggest that mental health literacy (MHL) and prior positive experience (Velasco et al., 2020) are some of the factors promoting wellbeing. This is because both are closely associated with help-seeking behaviours and have the ability to minimise the cost and

impact of disease outcomes (Colizzi et al., 2020; Sharp, 2019). The earlier help is sought, the better the results become. Plus, they are capable of increasing the utilisation of MHS, by reducing risky behaviours, while promoting a high quality life (Velasco et al., 2020). Being literate means having adequate knowledge to recognize disease symptoms, perform diagnosis and treatment, contribute to disease prevention by providing alternative solutions, and apply first-aid skills to assist those at risk (Lai et al., 2022). Illiterate persons, such as those who can hardly recognize disease symptoms, are unlikely to seek help (Li et al., 2022).

A survey conducted in a large Tunisian university, found that 43.8% out of 714 respondents believed that lack of self-discipline and willpower were among the main causes of mental illness, and 21.9% did not consider depression to be a mental illness. In addition, 39.6% held the view that they were 'unlikely' or 'very unlikely' to seek help for a MH problem from a professional (Fekih-Romdhane et al., 2021). These findings underscore a troubling reality: that many individuals, especially those with limited mental health literacy, do not seek the help they need. This is so, despite untreated depression having the capability of significantly impair daily functioning.

Help-seeking barriers are generally divided into three domains—knowledge, attitudinal, and structural related (Wang, 2019). Knowledge related barriers refer to a lack of knowledge which may include, non-recognition of symptoms, the need for treatment, even where and how to access treatment. Conversely, attitudinal barriers refer to attitudes held by individuals about the problem and may include negative perceptions, lack of perceived support, and the desire for independence, often leading to stigma. Finally, structural barriers are those that hinder treatment access. They include, lack of service providers, resources (finances, time, and

transport); and fear about medication side effects (Johnson et al, 2020). Whereas some students enjoy their duration in university, others do not (Worsley et al.,2021). This may be due to persistent or worsening of pre-existing as well as newly developing psychological difficulties (Parker et al., 2017). Considering barriers faced while seeking psychological help, it is convenient for affected persons to adopt skills that can assist them.

Additionally, there are very few studies that have utilized quantitative methods to study help-seeking behaviours. This is because, studies attempting to examine help-seeking aim at promoting the growth of understanding, rather than collection of factual knowledge and causal explanations. Moreover, prior studies have focussed on identifying factors associated with help-seeking behaviours which include socio and demographic characteristics, such as stigma, MH knowledge, poverty, level of education, unemployment, discrimination and violence. Having a good understanding of the help-seeking process is critical in the identification of the at-risk groups unlikely to seek assistance. Such an understanding improves not merely treatment access; but also provides reasons for the treatment gap, and informs service providers what service to expand. Furthermore, good understanding is important in identifying specific MH disorders, recognition of disease symptoms; illness development and treatment options. Also, such knowledge promotes prevention and help-seeking behaviours, offers effective strategies to solve minor problems, and first-aid skills to assist those at risk (Lai et al., 2022).

Considering the adverse effects and impact of depression, encouraging university students to seek help is essential for enhancing both academic and health outcomes and addressing disparities in help-seeking behaviour. Early screening can bring about greater willingness to

seek help promptly and mitigate risky behaviours. It is with this in mind that the present study sought to explore reasons why university students are reluctant to seek help for emotional problems.

1.2 Statement of the problem

University students face a heightened risk of developing depression, often associated with numerous negative outcomes such as poor class attendance, missed assignments, exam underperformance, dropout, relationship difficulties, suicidal thoughts, substance abuse, frequent illness, and overall poor health. These challenges often extend into adulthood, impacting career opportunities and social relationships. Despite these significant risks, students tend to delay or avoid seeking help, creating a troubling gap between the high incidence of depression and the low rates of help-seeking—a gap that remains poorly understood. Likewise, little is known, about how depression is related to help seeking behaviors. This reluctance to seek help is not just a personal issue; it has far-reaching societal, economic, and public health consequences.

Given the benefits of early detection and prevention of psychological difficulties, it's critical to investigate why individuals with depression often delay or avoid seeking help. Therefore, this study focused on understanding why university students are among the least likely individuals to seek help for their emotional problems. Due to the significant personal, social, and economic impacts of depression, promoting help-seeking behaviours is essential. Further research is needed to enhance the mental health and well-being of university students, ultimately benefiting society as a whole.

1.3 Purpose of the Study

The purpose of this study was to explore reasons why university students are reluctant to seek help for emotional problems.

1.4 Specific Objectives

The specific objectives of this study were to:

1. Assess the prevalence of depression among students in public universities in Kenya.
2. Examine the contribution of social and demographic factors to disparities in help-seeking behaviours among public university Students in Kenya.
3. Evaluate the factors that promote help-seeking behaviours among public university students in Kenya.
4. Determine the significant barriers to help-seeking behaviours among public university Students in Kenya.

1.5 Research Questions

This study sought to answer the following research questions:

1. What is the prevalence of depression among students in public universities in Kenya?
2. Are there any disparities in help-seeking behaviour among students in public universities in Kenya?
3. What factors promote help-seeking behaviours among students in public university in Kenya?
4. What are the significant barriers to help-seeking behaviours among public university students in Kenya?

1.6 Justification

Understanding why university students remain the least likely to seek help for emotional problems is important for several reasons:

- a. University students face significant academic pressure, social challenges, and major life transitions, all of which contribute to emotional stress. Therefore, understanding why university students are less likely to seek help can inform strategies to better support their mental health during this critical period.
- b. Emotional problems negatively affect students' academic performance, retention rates, and overall well-being. By addressing the reasons why students remain reluctant to seek help, universities can implement more effective support systems, leading to improved academic success and student satisfaction.
- c. It is highly likely that seeking help for emotional problems is associated with stigma, particularly within certain cultural or social groups. Studying this reluctance helps to understand and address these cultural factors, creating a more inclusive and supportive environment for all students.
- d. Many mental health issues first emerge during late adolescence and early adulthood. Identifying which are the significant barriers to help-seeking among university students allows for early intervention, which can prevent the escalation of mental health issues and lead to better long-term outcomes.
- e. Understanding the unique challenges and barriers faced by university students in seeking help for emotional problems allows for the development of targeted interventions. These tailored approaches can be more effective in encouraging help-seeking behaviour among this specific population.

- f. The habits and attitudes developed during university years often persist into adulthood. Encouraging help-seeking behaviour during this time can have long-term positive impact on students' mental health, potentially reducing future burden on mental health services.
- g. By studying the reasons behind reluctance to seek help, universities and mental health professionals can create a more effective support systems that can address the specific needs of their student populations.
- h. It is important to seek help and do so in a timely manner. Gaining better and clearer insights on how the help-seeking process is triggered and sustained is important in assisting sufferers seek help early, increase utilisation of support services, overcome stigma and negative attitudes. Therefore, the help-seeking behaviour should be understood and seen as a positive step towards enhancing wellbeing and happiness.

1.7 Significance of the Study

This study is crucial because it addresses a significant gap, with important implications for individual well-being, academic performance, and overall societal health. Since, many mental health issues emerge during late adolescence and early adulthood stage of human development, addressing these challenges is critical for preventing long-term consequences. A key contribution of this research lies in its potential to shape strategies that enhance mental health literacy, reduce stigma, and improve access to care. By identifying specific barriers that hinder students from seeking help, universities and policymakers can develop more effective, targeted interventions and support systems.

Additionally, this study is significant since it provides valuable insights for policymakers to manage and curb rising depression rates, as well as ease the burden on healthcare systems.

This is particularly important given the close link between emotional well-being and academic performance. Students who struggle with mental health issues are more likely to experience academic difficulties, which can lead to lower grades, higher dropout rates, and decreased engagement. This therefore helps enhance support for mental health that can directly contribute to better academic outcomes. Additionally, the study is significant given its potential to help in designing and developing strategies that encourage students to seek help, change attitudes towards promoting mental health literacy, reduce stigma, improve access to mental health care, and enrich the help-seeking literature. These findings can be utilized to inform university policies, mental health services, and public health initiatives to create a more effective support system.

Also, the study is significant for providing valuable insights for policymakers to guide the development of frameworks in managing and curbing rising depression rates among students. This is meant to ultimately ease the burden on healthcare systems and the resources spent on supporting vulnerable groups. Moreover, the study findings play a beneficial role in coming up with strategies to assist university students overcome reluctance to disclose their psychological difficulties. By addressing these issues, universities can create more favourable environments that promote mental health and well-being. Finally, this research goes a long way in enriching the literature on help-seeking behaviour and provide a foundation for developing intervention strategies for the at-risk students. It highlights the importance of early intervention in preventing long-term mental health issues and underscores the need for universities to create effective support systems that encourage students to seek help.

1.8 Assumptions of the Study

A key consideration for this study is the assumption that help-seeking is a survival skill employed to assist individuals decide whether or not to perform a behaviour. However, the skill itself is influenced by both risks (i.e., barriers) and protective factors (i.e., facilitators). Whereas, barriers have a negative influence, to delay or avoid performing a behaviour; facilitators do the exact opposite—they have a positive influence that increases the rate of performing a behaviour. Therefore, the premise upon which this study was carried out was the assumption that the size of the sample was adequate and an accurate representation of university students. In addition, the sample was deemed to be broad enough to support the validity and reliability of the study. Other assumptions include wilful participation; freely available and accessible MHS to all students; respondents gave genuine and honest responses; and, research instruments were capable of capturing correctly responses, experiences, and beliefs.

1.9 Scope/Delimitations of the study

This study focussed on examining the reasons making university students the least likely to seek help for their emotional problems. Specifically, the study's focussed on assessing the prevalence of depression, disparities in help-seeking behaviours, determine facilitators and significant barriers to help-seeking behaviours. Therefore, the scope of the study was limited to the utilisation of 896 respondents drawn from students registered at KSU for the 2022/2023 academic year. To collect data, five survey instruments were administered to respondents. A self-report approach was relied upon to screen, measure and collect data. Only respondents who answered the question "Have you sought help for an emotional problem during the past six months?" were included for further analysis on help-seeking behaviours. In terms of

geographical scope, this study was conducted at KSU main campus. The university is located at Kisii town, the county headquarters and has a large student population. For this study, the contextual scope was limited to assessing the prevalence of depression, examining disparities in help-seeking behaviours, and determining significant barriers and facilitators to help-seeking behaviours among undergraduates.

1.10 Limitations of the study

Despite providing valuable insights into why university students are among the least likely to seek help for emotional difficulties; this present study is not without limitations. Therefore, it is important to acknowledge these limitations in order to provide a more balanced understanding of the findings as well as guide future research. Some of the limitations that should be taken into consideration when interpreting the data in this study include introduction of bias, reluctance to participate, sampling and selection errors.

Given that the study relied on a self-report approach to data collection, there are high chances that biases being introduced. Biases, such as failing to give accurate and honest responses. In addition, students may have underreported or exaggerated their emotional difficulties or their willingness to seek help. This is due to social desirability, fear of being stigmatised, or misunderstanding of their own mental health status. Such distortions are likely to have led to inaccurate conclusions about the prevalence of emotional difficulties and the factors influencing help-seeking behaviour. To mitigate this, respondents were encouraged to provide honest and genuine responses.

A further limitation may have been the reluctance by some eligible respondents to take part in the study, given that individuals suffering depression often conceal their true health status. To

address this limitation, the study collected information anonymously, concealing respondents' identities and keeping the information confidential. Also, consent confirming willingness to participate was obtained prior to administering the surveys.

Despite having an adequate sample, some demographics lacked sufficient representation, thereby reducing the study's statistical power to draw valid conclusions. It is important to have a representative sample to draw valid conclusions; since, larger samples yield more precise results than smaller samples. In addition, smaller samples make it more difficult to identify significant relationships in the data.

Finally, non-representativeness may have occurred due to the exclusion of students suffering from severe depression who lack the capacity to make rational and beneficial choices for themselves. This is because persons suffering depression are less likely to volunteer to participate; thus, limiting their inclusion. Also, the cut-off age defined for inclusion (i.e., only those aged 18–25 years) is a clear limitation, as students outside this age range were excluded merely for not meeting the age criteria. Furthermore, the findings may not be generalizable to all undergraduate students in Kenya given that the study was conducted in a single university. Finally, the study methodology may be a potential cause for limitation. This is because the current study utilised a correlational research design, which does not allow one to study cause and effect because the researcher is not able to manipulate study variables.

1.11 The Conceptual Framework

A conceptual framework serves as a powerful tool for gaining a deeper understanding of the complex interaction between psychological, social, and environmental factors that contribute to students' reluctance to seek help for their emotional challenges. By integrating established

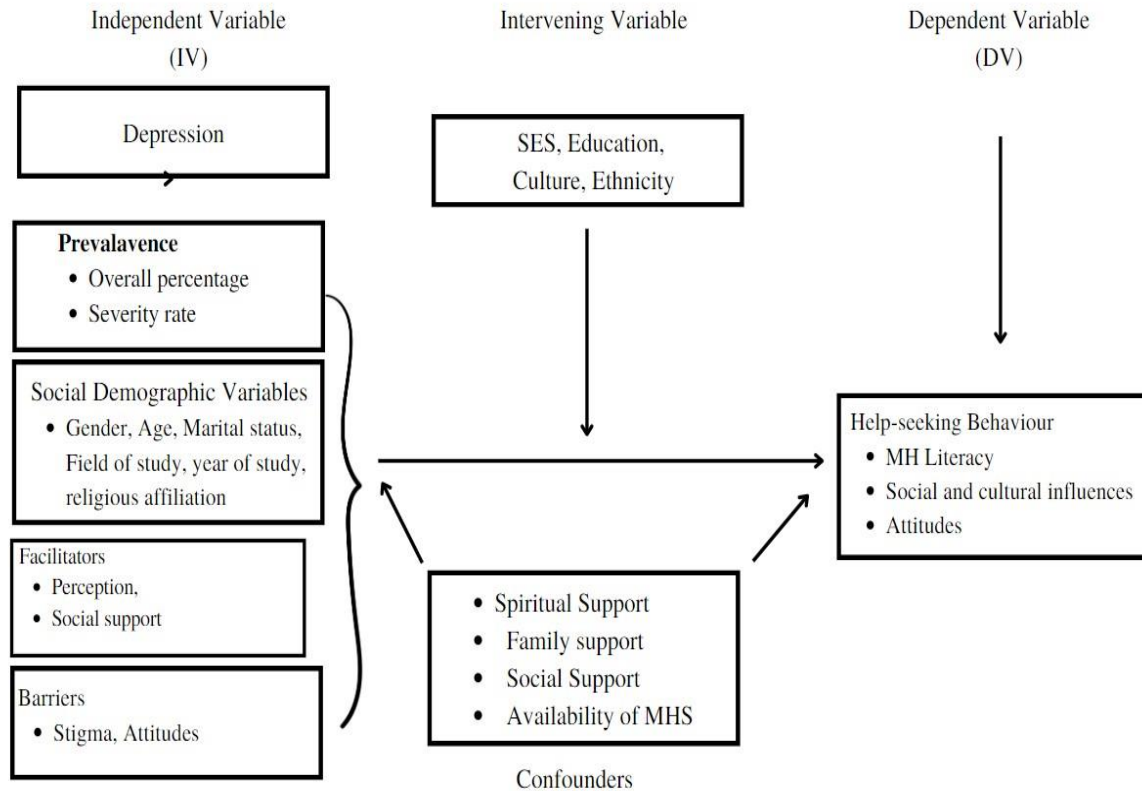
theories of stigma, help-seeking behaviour, and social support systems, the framework aims to provide insight into why depression is so prevalent among students and highlights the disparities in seeking help. It explores not only the factors that encourage help-seeking behaviours but also those that act as barriers.

Moreover, the framework delves into the critical influence of cultural norms, peer pressure, and institutional policies, all of which play a significant role in shaping students' perceptions of mental health services. By examining these multifaceted elements, the framework seeks to offer a comprehensive explanation of the factors that either support or impede students' willingness to seek the emotional help they need.

The purpose of employing the conceptual framework is to examine the factors contributing to students' reluctance to seek help. By examining these elements holistically, the framework seeks to uncover the underlying reasons behind this behaviour. Additionally, this analysis will play a crucial role in informing and shaping targeted interventions, ultimately aimed at enhancing mental health support services within educational institutions and fostering a more supportive environment for students in need. To illustrate the relationship between depression and help-seeking behaviours; figure 1 displays how the researcher conceptualised the study.

Figure 1:

The Conceptual Framework: Relationship between Depression and Help-seeking Behaviours



[Source: *Researcher, Dec., 2022*]

Help-seeking behaviour is the dependent variable (DV), i.e., the presumed effect as displayed in Fig. 1; while depression is the independent variable (IV), i.e., the presumed cause. For this study, the IVs consisted of prevalence, social and demographic characteristics, facilitators and barriers to the help-seeking behaviours. However, the relationship between the IVs and the DVs can be mediated by support networks such as Family, Spiritual, and Social networks, as well as availability of MHS. A positive or negative outcome out of the associations can be expected. A positive outcome implies an increased rate of help-seeking behaviour, while a negative outcome implies a decline in the rate of help-seeking behaviours.

Given that help-seeking is a learned skill, variables impacting depression are important because they affect one's response towards help sought, which may include, willingness, attitude and intention to perform a behaviour. Therefore, in contextualising depression, the majority of those affected tend to delay or avoid seeking help due to a lack of knowledge on its adverse consequences.

1.12 The Theoretical Framework

In this study, two theoretical frameworks were used to explain depression among university students. Whereas Beck's cognitive theory (BCT) was used to explain the cognitive aspects of depression; the theory of planned behaviour (TPB)] was used to explain the behavioural aspects of depression. Developed in the 1960s, Beck's Cognitive Theory, serves as a foundational framework for understanding and treating depression, highlighting the role of negative thought patterns in the development and persistence of depressive symptoms. By focusing on how individuals interpret their experiences, the theory provides a basis for cognitive-behavioural therapies aimed at challenging and changing these harmful thought patterns. The theory comprises of three key tenets, which include:

- (a) **The cognitive Triad:** Beck's theory emphasizes the role of the "negative cognitive triad," which includes negative views about the self, the world, and the future. University students suffering depression may experience this triad intensely, leading them to internalize their struggles as a reflection of their inadequacies. They might perceive that others are handling similar stresses without issue, leading to feelings of shame and isolation. This negative self-view, combined with a pessimistic outlook on their ability to improve their situation, can create significant barriers to seeking help. Students might

fear that reaching out will expose their vulnerabilities or confirm their worst fears about themselves, further entrenching their reluctance to seek support.

- (b) **Cognitive Distortions:** Beck identified several types of irrational, exaggerated, or biased thinking patterns that contribute to depression. These include, the “all or nothing thinking –viewing situations in categorical terms, without a middle ground. For example, thinking "If I fail at this, I’m a complete failure." The second distortion is overgeneralization—drawing broad, negative conclusions from a single event. For instance, after a single rejection, someone might think, "I’ll never succeed at anything." The third distortion is Catastrophic –expecting worst possible outcome, no matter how unlikely it is. For example, thinking, "If I make one mistake, it will ruin everything." The fourth distortion is assuming others are thinking negatively about you without concrete evidence. Finally, the last distortion is believing that negative emotions reflect reality, such as "I feel worthless, so I must be worthless."
- (c) **Schemas:** These are deeply ingrained, enduring cognitive structures or core beliefs that shape how individuals interpret and respond to their experiences. In depression, these schemas are typically negative and may be rooted in early life experiences. For example, a person with a schema of "I am unlovable" may interpret neutral or ambiguous situations as evidence of rejection or failure.

While Beck's theory primarily focusses on cognition, it also recognizes the role of behaviour in depression. Depressed individuals may engage in behaviours that further reinforce their negative thought patterns such as social withdrawal, which can lead to further isolation and deepening depression. In addition, the theory has been highly influential in the development

of Cognitive Behavioural Therapy (CBT), a widely used therapeutic approach that aim to identify, challenge, and modify negative thoughts and beliefs to alleviate depressive symptoms.

Beck's Cognitive Theory is a powerful framework for explaining why university students are the least likely to seek help because the theory posits that depression is largely driven by negative thought patterns and cognitive distortions, such as overgeneralization, catastrophizing, and black-and-white thinking. University students, who are often under significant academic and social pressures, may develop these cognitive distortions, leading them to view their emotional problems as being impossible to deal with or as a sign of personal failure. This distorted thinking can contribute to a reluctance to seek help, as students may believe that their issues cannot be fixed or not severe enough to warrant professional assistance.

Finally, Beck's Cognitive Theory is particularly relevant in understanding how cognitive distortions can perpetuate a cycle of avoidance and worsening emotional problems. For university students, who are often navigating new environments, social relationships, and academic challenges, these distortions can be magnified. The avoidance of help-seeking may stem from fears of being judged or stigmatized, concerns about confidentiality, or a belief that they should be able to handle their problems independently. Beck's theory helps to illuminate how these cognitive barriers can maintain or worsen depression, making it a valuable tool for identifying the psychological factors that contribute to students' reluctance to seek help and for developing interventions that address these cognitive patterns.

While the Beck's Cognitive Theory is influential in understanding depression, it has several limitations when applied to university students. Key among them include environmental stressors such as academic pressure, financial difficulties, and social transitions. In addition, Beck's theory doesn't fully account for how cultural norms, socioeconomic factors, or societal pressures may shape their experiences of depression. The theory emphasizes that depression stems from negative thinking, which can place the burden of responsibility on the individual. For students, this may overlook systemic or structural issues such as institutional policies, support systems, or social inequities that contribute to their mental health struggles.

Finally, Beck's theory pays less attention to biological or neurochemical factors that may play a significant role in depression, especially in a population like university students, who may be undergoing hormonal changes or experiencing genetic predispositions. To take care of these shortcomings, the Theory of Planned Behaviour (TPB) was utilized. The framework serves as a comprehensive model designed to predict and explain behaviour across a wide spectrum of domains. It builds on the Theory of Reasoned Action and introduces constructs such as perceived behavioural control (PBC) to address external factors impacting both intention and behaviour. The TPB identifies three primary determinants of intention: attitude toward the behaviour, subjective norm, and PBC. Attitude reflects how favourable or unfavourable one perceives the behaviour, with stronger intentions leading to a higher likelihood of performing the behaviour. Subjective norm involves perceived social pressures to engage in or avoid a behavior. PBC pertains to the perceived ease or difficulty of performing a behaviour, incorporating past experiences and anticipated obstacles.

Attitudes evaluate a behaviour's outcomes, influencing preparedness and willingness to act. Subjective norms encompass social expectations and norms, affecting awareness and social support for actions like seeking help. PBC includes self-efficacy and the perceived control over the behaviour, which can be limited by factors like accessibility to services. The TPB explains the link between cognitive factors, behavioural intentions, and their execution. The theory has successfully predicted a range of health-related behaviours, such as smoking, drinking, health service utilization, breastfeeding, and substance use. The model is particularly effective in forecasting intention and behaviour, making it a valuable tool in areas like help-seeking for mental health issues among university students.

In sum, the TPB provides a robust framework for understanding and predicting behaviour by considering attitudes, social norms, and perceived control; making it widely applicable in health and psychological contexts. However, this theory formulated by Ices Ajzen, is only applicable to behaviours that individuals can exert control over and is an improvement over the Theory of Reasoned Action (Ajzen, 1985). The most important concept of this model is behavioural intention, shaped by attitudes regarding the likelihood of a behaviour producing its anticipated outcomes and the subjective assessment of the potential risks and benefits tied to those outcomes. The introduction of this framework gave rise to constructs such as perceived behavioural control (PBC) to account for the impact of external factors beyond an individual's control but which affect intention and behaviour.

The TPB posits three distinct correlates of intention (Ajzen, 2020)—one, the attitude toward the behaviour, meant to measure how favourable or unfavourable the behaviour in question is. The stronger the intention to engage in a given behaviour, the more likely it is to perform that

behaviour. The second predictor is the subjective norm—a social factor encompassing perceived social pressures to either perform or abstain from a specific behaviour. Finally, the third and last antecedent of intention is the level of PBC, reflecting the perceived ease or difficulty associated with performing a behaviour. This aspect is assumed to reflect past experiences and anticipated obstacles.

The TPB outlines the connection between cognitive factors and behavioural intentions, and their execution (Ajzen, 2002), with subjective norms (i.e., attitude toward a behaviour), and PBC forming its core components. These elements predict intention, which subsequently guide behavioural performance and aligns with the stages of the help-seeking process. Subjective norms include what others think or believe about a behaviour—illustrated by the extent to which people adhere to descriptive norms and endorse injunctive norms (i.e., help-seeking). This aspect correlates with recognition and preparedness, as it signifies awareness of social backing for addressing psychological challenges.

Attitudes focus on evaluating a behaviour. For instance, is it beneficial or detrimental to seek help for depressive symptoms? This aspect is associated with preparedness, since it mirrors personal values and perceived advantages of seeking help. However, it also influences willingness, propelling individuals to actively pursue avenues that align with their objectives and values. PBC consists of self-efficacy (i.e., confidence in performing a behaviour) and the degree of control one has over the performance. Perceived control tends to be diminished when mental health services are not readily accessible, particularly in rural areas, while self-efficacy might remain relatively unaltered. These three central components of the TPB inform behavioural intent, subsequently predicting execution (Romano & Netland, 2008).

Help-seeking is a coping and survival mechanism, conceptualised as a dynamic process consisting of awareness of sources of help and appraisal; need determination; and finally, willingness to disclose difficulties to a help source (Rickwood & Thomas, 2012). Each stage of the help-seeking process is influenced by barriers and facilitators (Scott & Walter, 2010). Prompt response to disease symptoms is likely to increase survival chances, while reluctance limits those chances. Delay or avoidance to seek help is likely to worsen the condition, thereby risking death. As such, early disclosure is a critical step towards diagnosis, treatment and recovery.

Generally, strong intentions produce strong motivation. However, this is only true for behaviours that one has control over; and which in turn are perceived to yield favourable outcomes. In addition, the outcome for subjective evaluation of the risks and benefits must show a high likelihood of success if one engages in performing the behaviour (Fishbein & Ajzen, 2010). The TPB has demonstrated success in predicting and explaining a wide array of health-related behaviours and intentions, including, smoking (Alanazi et al., 2017), drinking (Norman et al., 2017), utilisation of Health services (Ngwenya et al., 2020), breastfeeding (Bartle & Harvey, 2017), and substance use (Moeini et al., 2017) among others. In sum, the TPB is the most suitable framework due to its widespread application in forecasting both intention and behaviour (Langford et al., 2018). Moreover, the TPB has been effectively employed to investigate help-seeking intentions for anxiety, depression, career choices, alcohol and drug use among the university student population (Hess & Tracey, 2013).

None of the selected frameworks on their own is able to explain help-seeking behaviours underlying depression sufficiently enough, because each has some weaknesses. For instance,

compared to the BCT, the TPB has more constructs which are better defined and better mathematically specified; thus, promoting the adequacy and consistency of use (Alhamad, & Donyai, 2021). Although, both theories share many similar constructs; each also include distinct concepts. For example, BCT has a practical application. It has led to the development of a screening and measurement tool for depression and therapeutic treatment methods including, Cognitive Behaviour Therapy and Rational Emotive Behaviour Therapy. However, intentions are unique to the TPB, and are posited as the closest predictor of behaviour; while norms, attitudes and PBC are determinants of intentions. Compared to the TPB, the BDI-II which utilises cognitive theory is deemed to be a valid and reliable instrument for depression screening and measurement (Button et al., 2015), but not help-seeking behaviours. In addition, the BDI-II lacks a clear path to determine the relationship between the variables.

Studies investigating the application of the TPB, have identified a strong link between both behaviour and attitudes towards the behaviour as well as perceived behavioural constructs (Alhamad, & Donyai, 2021). However, subjective norm has been acknowledged as the weakest explanatory factor concerning behavioural intention (Herr, 2018). This issue of weak correlation is partly explained by the methodology adopted by the study. In 1991, Ajzen undertook a review of 16 studies that examined the efficacy of TPB-based interventions to predict behaviour changes. The review revealed that attitude, subjective norm, and PBC collectively accounted for a significant amount (20-78%) of the variance in behaviour intention (Alhamad, & Donyai, 2021). The multiple correlations linking behavioural intention and its three predictors—attitude, subjective norm, and PBC—ranged from 0.43 – 0.94, averaging at 0.71. Therefore, Ajzen concluded that these findings emphasise that PBC and intention, were significant predictors of behaviour, resulting in an average multiple correlation

of 0.51 (Alhamad, & Donyai, 2021).

Despite including PBC into the TPB, other variables such as desire, necessity, and emotion continue to be conspicuously absent; thereby exerting influence on actual behaviour, irrespective of the expressed attitude (Alhamad, & Donyai, 2021). For instance, an individual might possess favourable attitudes toward depression treatment but lack the requisite need or motivation to pursue treatment. Conversely, the BCT primary emphasis on individual cognitions and beliefs as precursors to psychological disorders could be identified as a significant limitation. This focal point may inadvertently divert attention from other important factors, including biology, environment, and social interactions. Furthermore, the theory fails to provide insights into why certain individuals with similar thought patterns fail to manifest psychopathology.

Finally, the theory is weak in that it does not provide guidance on how to transform dysfunctional cognitions and beliefs to mitigate psychological distress. Despite these limitations, Beck's cognitive theory remains an invaluable contribution to our understanding of psychopathology. Therefore, drawing from this analysis, it appears suitable, useful, and beneficial to apply both theories—the BCT and the TPB to explore why university students remain the least likely to seek help for emotional problems.

1.13. Operational Definition of Terms

Unless the context otherwise requires, these listed terms and expressions should be understood to have the following meaning: -

Barrier	Anything that deters individuals in need of care from seeking help or treatment
Behaviour	The aggregate response or reaction made by persons with depression towards help-seeking
Depression	A common and serious mood disorder that negatively affects how one feels, thinks and acts. It can impact an individual's ability to function or cope with daily life with a persistent feeling of sadness and loss of interest (APA, 2022).
Discrimination	Prejudicial or unjust treatment meted to an individual, especially on grounds of health, race, age, sex, or disability.
Disparity	Differences occurring among groups and influenced by socio-demographic factors such as gender, age or health
Facilitators	Factor that support or motivate university students to seek help for their mental and/or physical health difficulties
Formal sources	Trained, qualified and certified MH professionals
Help-seeking	Intentional actions taken to solve a health problem that challenges personal abilities by seeking assistance from both formal and informal sources
Informal Sources	Non-formal sources such as friends, relatives, and colleagues.
Intention	What one purposes, aims or aspires to accomplish or attain while applying deliberate effort

Intervention	Any action intended to stop or modify a process, as in treatment undertaken to halt, manage, or alter the course of the pathological process of a disease or disorder.
Prevalence	The proportion of subjects in a population with a certain condition
Stigma	Negative stereotypes and prejudices about one's undesirable condition mental illness, such as—people with mental illness are weak
Personal stigma	Negative attitudes towards oneself
Young Adults	Individuals aged 18–25 years

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of both empirical and theoretical literature exploring the reasons why university students are among the least likely to seek help for emotional challenges. It examines the most relevant and up-to-date scholarly research, with a focus on depression, help-seeking behaviours, and the factors that either facilitate or prevent students' willingness to seek support. Additionally, the literature review includes a summary of both individual and contextual factors influencing these behaviours. Furthermore, the chapter highlights past interventions aimed at improving help-seeking tendencies and reviews studies that have directly applied the TPB model.

This presentation is a synthesis of concepts, trends, and debates in literature used in assisting the identification of existing knowledge gaps in the ongoing conversation. In addition, the literature review provided study context, evidence to support or contradict positions advocated by prior studies, and used to answer questions raised by prior studies. This chapter therefore, is divided into seven sections and discussed in the following order—depression, help-seeking behaviours, prevalence of depression, help-seeking disparities, facilitators; and, barriers influencing help-seeking behaviours; and finally, confounders and Intervening variables.

2.2 Depression

Depression is not just a common mood disorder; but is also a serious and complex mood disorder with a global presence. Its exact cause is poorly understood. For instant, research by Khan and colleagues suggests that depression results mostly from an interplay between genetic vulnerability and environmental factors (Khan et al., 2019). Others argue that depression

originates from complex interactions among social, psychological, and biological factors. Individuals who have experienced adverse life events such as prolonged unemployment, bereavement, or traumatising episodes, are at a significantly higher risk of developing depression. Plus, the impact doesn't stop there; depression often spirals into deeper stress, dysfunction, and impairment, further disrupting lives (WHO, 2021). The rise in cases can be attributed to several contributing factors, including poverty, job loss and unemployment, traumatic experiences such as relationship breakups, physical illness, the death of a loved one, and the destructive cycle of alcohol and drug abuse (Hinck, 2017). This shows that depression is a severe yet complex and deeply personal problem that demands for our attention and empathy.

Moreover, depression has more possible causes (Dattani et al., 2021), which take various forms, and remain widely under-diagnosed and under-reported (Matlala et al., 2018; Ritchie, 2020). Depression can also occur at any time during the lifespan; but, on average, first onset is during the young adult stage—18-25 years (APA, 2022). Both males and females depict similar rates of prevalence during their childhood (i.e., up to 10 years) and late adulthood (i.e., over 60 years). But, differences start to appear during the adolescence stage and persists until midlife. During this period, depression among females becomes more elevated compared to males (Brody et al., 2018; Salk et al., 2017; Shi et al., 2021). Other risk factors for depression include stigma, MHL, negative attitudes, poverty, level of education, unemployment, discrimination and violence. Finally, studies have also observed a high degree of heritability (approximately 40%) when first-degree relatives (parents/children/siblings) have depression.

Besides, depression is likely to originate from abnormalities in the physical structure, and functioning of the brain (Clark et al., 2017). For example, studies have shown that both structural and functional abnormalities can cause some specific regions of the brain to decrease among depressed persons (Dai et al., 2019). The implicated regions are the amygdala, hippocampus, and the dorsomedial thalamus. These parts support memory, learning, navigation, and perception of space; relay information to the brain stem; and control cognitive functions such as attention, impulse, and emotional reactions (Helm et al., 2018). Other causes include, having a medical condition; taking medication or recreational drugs, alcohol and poor coping skills (NIMH, 2018). More evidence, suggest that depression appears to run in certain families, implicating the involvement of genes in its transmission (Torres, 2020); or an external event such as loss of a loved one, chronic illness, difficult relationships, exposure to abuse, neglect or violence; financial problem, any negative life events or unwelcome changes in life patterns (Bernaras et al., 2019). This can involve a single severe exposure or numerous stressors.

The factors responsible for the development of mental health disorders are deeply troubling—ranging from intense stress, burnout, and loneliness to the problematic alcohol and illicit substances use. These issues manifest in the form of anxiety, depression, and even tragically lead to suicide attempts (Dopmeijer et al., 2020). The situation is made even more worse by the reluctance of many students to seek help. The fact that most undergraduates are aged between 18 and 25 years is of great concern. This is a period of profound developmental transition (Lanoye et al., 2017; Wood et al., 2018) –a time when they are not only moving from high school to university but also navigating the crucial shift from adolescence to adulthood. Disturbingly, this age group is at the centre of mental health challenges, with

approximately 75% of mental health disorders making their first appearance during this pivotal stage of life (Fusar-Poli, 2019). The urgency to address these issues cannot be overstated, as these young adults stand at the crossroads of their futures, with their mental well-being hanging in the balance.

To conclude, depression is likely to occur due to biological, psychological, behavioural, or environmental reasons. Other explanations suggest that depression can result from deficits in response reinforcement and inadequate social skills or reliance upon the delay and avoidance coping strategy which has been associated with higher risk (Halverson et al., 2020). This is because depression negatively affects one's mood, thoughts, feelings, behaviours and physical health. In addition, exposure to pharmacological agents as well as substance abuse can also worsen the risk of depression. However, regarding agents of abuse, it is unclear whether depression is a consequence or facilitator (Halverson et al., 2020), thereby negating the possibility of a single theory that can fully explain the causes and persistence of depression.

Depression manifests differently in each individual, resulting in a variety of possible symptoms, which can range in type and severity. Plus, the symptoms are as varied as the individuals affected. They range from persistent sadness, overwhelming hopelessness, and a loss of interest in activities once enjoyed, to feelings of guilt, crushing low self-esteem, disrupted sleep, diminished appetite, poor concentration, and debilitating fatigue (Syed et al., 2018; Wabai, 2019). When these symptoms persist for weeks or even months and become severe enough to disrupt work, social interactions, and family life, depression is implicated. For that reason, accurate diagnosis becomes an essential first step towards the treatment of depression, done through an association between symptoms and signs. In this context,

symptoms represent the patient's complaints or the subjective experience of a health problem, apparent only to the patient. However, a sign is an observable medical condition or objective evidence of a disease, especially by the physician (Kuruvilla, 2021).

Typically, severe symptoms prompt sufferers to seek treatment; however, if the symptoms are less intense, the perceived need for help decreases. What is more, depression is complicated considering that, it is characterised by several symptoms that include, sleep and appetite disorders (increased or decreased); anhedonia (interest), energy and concentration deficit; psychomotor retardation or agitation; guilt (i.e., worthlessness, hopelessness, or regret); and recurring thoughts about death or suicide (APA, 2022). Despite depression having several symptoms, nevertheless, the two cardinal symptoms of depression are a depressed mood and loss of interest (Thompson et al., 2021).

Although, the presence of five symptoms which include depressed mood or anhedonia suggest depression; further screening is necessary because depression manifests differently between men and women and for different ages. For example, there is a higher likelihood for depressed women to report physical ailments such as headaches, myalgias, or gastrointestinal problems than men. They are also more likely to display emotional effects such as stress and crying easily (Maurer, et al., 2018). But, individuals suffering depression are more likely to report acts of aggression, such as anger, substance abuse, and risky behaviours compared to women (Streb et al., 2021).

To diagnose depression, an individual must exhibit at least five symptoms over a continuous period of two or more weeks, with one of the symptoms being either a depressed mood or a loss of interest or pleasure. Additionally, a confirmatory symptom in patients with depression

is emotional blunting—a symptom characterized by an inability to experience positive or negative emotions, feelings of detachment, or reduced emotional responsiveness—often observed in patients with depression (Christensen et al., 2022). Given that depression is often invisible to the outside observer, patients must endeavour to make an accurate account of all their symptoms so that the physician can make an accurate diagnosis.

The most effective ways to control depression and also shorten the length the episode lasts is by medication and therapies. For many, taking prescribed medication improves their mood and coping skills quickly. Despite producing faster results; medication must be prescribed by a doctor or a qualified MH professional. Many individuals also benefit from psychotherapy—otherwise, known as counselling (Wallace, 2022). Although in literature, counselling and psychotherapy are used interchangeably, there are subtle differences. Whereas, counselling typically deals with present issues involving the emotional and intellectual experience of a client, psychotherapy is often a longer-term intensive treatment, helping the client overcome profound difficulties resulting from their psychological history.

Depression affects feelings, thoughts and actions of all individuals negatively across all sexes and ages, and, backgrounds. However, for students it has huge implications, given that depression is characterised by sleep disturbances and fatigue. Students suffering depression find it difficult to attend lectures or stay awake during class. Loss of interest and perpetual feelings of sadness act as barriers to student learning and doing well in studies. These symptoms and their effects provide a connection between depression and poor academic performance. Consequently, the most effective way to combat depression is perhaps through counselling which is seen as both an art and a science assisting to bring about changes in

thought, emotion, and behaviour (Sajjad, 2017). Given that counselling depends on communication, it is critical for patients to describe in clear terms their feelings so as to assist MH professionals make accurate diagnosis of the problem to formulate therapeutic solutions.

The sad mood that characterises depression does not measure to the normal sad mood. It goes way above and beyond the normal sadness or grief (Dryden-Edwards & Shiel Jr., 2021). Depression can cause various emotional and physical effects that significantly hinder a person's ability to perform effectively at work or school and manage everyday life. (WHO, 2019). Additionally, depression exacts physical and psychological burden on patients and their families; ultimately leading to death through suicide (WHO, 2020b). This has made depression the leading cause of disability and a major contributor to the overall disease burden (Wabai, 2019). Globally, depression is not only the most prevalent MH disorder, but is also the leading cause of impairment (WHO, 2019). Besides, depression is implicated in devastating consequences and also in the reduction of social functioning, which often keep recurring (Bernaras et al., 2019).

Despite depression being highly treatable and preventable, a relatively small percentage of university students seek out treatment services (Magaard et al., 2017; Roberts et al, 2018). This gap is partly attributable to barriers, which include, stigma and embarrassment (Shi et al., 2020; Velasco et al., 2020), poor knowledge of the problem, and lack of support networks as well as culture (Ogada et al., 2019). In any case, studies have demonstrated the possibility of demographic factors acting as barriers and those implicated include, gender, age, marital status, and religious affiliation (Maiuolo et al., 2019).

Furthermore, there is growing consensus among researchers that the gender gap in depression can be explained using biological, psychological, micro and macro environmental factors with varying interactions (Kuehner, 2017). For example, hormonal changes are assumed to increase the risk of women experiencing depression at particular points in their lives, such as during adolescence (Lewis et al., 2018) or after giving birth (Dadi et al., 2020). Therefore, a number of theories have been advanced concerning the biological basis of depression. These include those revolving around monoamine neurotransmitters, neuroplasticity, neurogenesis, inflammation, and the circadian rhythm. Physical illnesses, including hypothyroidism and mitochondrial disease, can also trigger depression. Neural circuits responsible for the generation and regulation of emotion and reward, are also implicated in depression (Kharitonova, 2019).

Finally, studies indicate that help-seeking disparities due to gender are implicated in several physical and psychological outcomes. For example, depression accounts for approximately 41.9% of the disability among women compared to 29.3% among men (WHO, 2021). This shows that depression has more adverse consequences among women. More importantly, comorbidity between depression and anxiety is more prevalent in females than in males. Accordingly, females suffering depression have increased risk of experiencing intimate partner violence.

Pressures created by the multiple roles played by women, social and economic factors, malnutrition, overwork, domestic violence and sexual abuse, all combine to account for women's poor psychological health (Anand, 2020). Consequently, this study sought to investigate factors correlated with delay and avoidance coping strategy and examine the

effects of level of depression on help-seeking behaviours among students in public universities. Other objectives include providing data and insights to address a gap that the Kenyan government, through the Ministry of Health, has acknowledged (Ministry of health, 2015).

2.3 Help-Seeking behaviours

The concept of 'help-seeking' has gained a lot of attention recently due to its importance in understanding why individuals with emotional problems often delay or avoid seeking help for various health conditions. When used in a general sense, 'help-seeking' refers to the utilisation of MHS from both formal and informal sources, whether in public or in private. Seyi-Oderinde (2020), quoting Abubakar et al., (2013); notes that, often, researchers use the term "help-seeking" interchangeably with "health-seeking," which generally refer more narrowly to seeking health or treatment services for a specific ailment or illness. However, in a broader sense, "help-seeking" refers to the use of both formal and informal support, which include family, kinship and friends' networks, traditional healers and/or religious leaders. This is the sense in which this term is used in this study.

Moreover, help-seeking is a complex decision-making process triggered by a health problem challenging personal coping abilities. It is against this backdrop, that the concept is viewed as a multi-faceted process where individuals begin by recognizing a specific health problem such as depression, followed by recognition of the need to seek help or treatment and then the willingness or intention to seek help (White et al., 2018). To determine whether or not it is worthwhile seeking help, one must carry out a cost-benefit analysis in order to choose the most economical option. Help-seeking can therefore be defined as a form of health seeking

behaviour where a help seeker discloses a problem to get external assistance. In MH, seeking help from external sources is the first conscious step towards receiving treatment (Tomczyk et al., 2020a), because treatment begins with disclosure and diagnosis. Also, the earlier it begins, the more effective treatment is likely to be.

Given that help-seeking is a form of health seeking behaviour; it is important to have adequate knowledge of factors that can facilitate or hinder the process because untreated depression can easily result into severe treatment resistance thereby, increasing disease burden and complexity of the disorders (Biftu et al., 2018; Johansson et al., 2017). Also, considering that depressive syndromes are among the most prevalent MH disorders in the general population (Serrano et al., 2022; Bretschneider et al. 2017), to investigate help-seeking behaviours among university students should be seen as a public good.

Studies among university students, consistently report an even higher prevalence of depression compared to young adults of a similar age (Hakami, 2018; January et al., 2018). Yet, students remain the least likely to seek help for their emotional problems even when they are at risk of impairing their everyday functioning and well-being (WHO, 2019). Emotional problems associated with this stage of life, and how to seek help for those worries, are of great concern because, untreated depression is associated with poor academic achievements, failure to complete studies and graduate on a timely manner, relationship instability, suicidal ideation and attempts, poor work performance, substance abuse, acute infectious illnesses, and physical and psychological difficulties in general (Ngin et al., 2018).

Moreover, studies show that help seeking behaviours are low while its rate differs from one country to another. For example, 23 community surveys (12 surveys in HICs, 6 in UMICs and

6 in LICs) were conducted using nationally representative household samples. Three represented the urban areas; three selected regions in their countries (Japan, Nigeria, and Spain; four represented selected Metropolitan Areas (Sao Paulo, Brazil; Medellin, Colombia; Beijing-Shanghai and Shenzhen in the People's Republic of China. The survey estimated the rate of professional help-seeking to range between 35–50% in HICs (Alonso, et al., 2018; Magaard et al., 2017), while among LICs, the rate ranged between 10–15% (Evans-Lacko et al., 2018). As for Africa and Europe, the rates were estimated to range between 33% and 55.6% (Biffu et al., 2018). However, Kenya's help-seeking rate is not known, but is believed to mirror the rates for LICs.

These findings concur with Rathod et al., (2016), who reports that help-seeking is highest in Europe at 55.6% compared to lowest in Africa at 33%. Studies also suggest that there are gender disparities in help-seeking behaviour. For example, male students depict a low help-seeking behaviour compared to their female counterparts (Sagar-Ouriaghli et al., 2019), perhaps due to not seeking treatment—a behaviour that aligns itself towards male gender norms. In any case, the majority of the male students seek help from formal sources compared to their female counterparts. However, should they do, it is from informal sources first (Smith et al., 2019; Summers et al., 2019), before considering formal sources (Magaard et al., 2017; Roberts et al, 2018). This is unlike middle and older adults who prefer seeking help from formal sources first (Wuthrich et al., 2015). Other factors associated with psychological help-seeking include, MHL, support networks, and culture (Ogada et al., 2019).

To seek help willingly require courage, especially for psychological problems. This is because help-seeking can significantly increase one's chances of well-being, while reluctance or delay

can have adverse consequences. Therefore, delaying or avoiding help-seeking is a sure way of potentially leading to fatal outcomes. Additionally, the urgency to seek help is strongly influenced by an individual's perception of their illness; the more severe they believe their condition to be, the more likely they are to pursue intervention (Zimmerman et al., 2018). However, the decision on where to seek help is largely shaped by personal beliefs about the cause of the illness (Jones et al., 2018).

Given that a significant majority of individuals believe that mental health disorders are mostly caused by either supernatural or organic causes (Jones et al., 2018); it is not surprising therefore, that the choice of a help source depends on what one believes to be the cause of the illness. Many individuals would rather seek support from informal sources before turning to formal ones. This tendency highlights the profound impact of cultural and personal beliefs on the pathway to recovery.

To suffer depression without any form of support is a significant challenge given the physical, mental and cognitive health havoc loneliness wreaks (Forsyth, 2022). Loneliness, according to Novotney (2019), raises stress levels that go a long way to impede sleep and, in turn, harm the body by augmenting depression as well as anxiety. Therefore, a support network comes with a positive impact on the overall mental wellness, especially for women, older adults, patients, and students. However, efforts to research help-seeking behaviours are complicated by the involvement of multiple factors such as, gender and age disparities (Auerbach et al., 2018; Hu et al., 2021), education and socio-economic status (Magaard et al., 2017), geographic location (Evans-Lacko et al., 2018), poor knowledge of the problem, lack of support networks and culture (Ogada et al., 2019).

In a study conducted at the Lebanese American University, in Lebanon; researchers found that the risk of depression was 63% lower among individuals with high perceived social support, compared to those with low perceived social support after adjusting for age, gender, living arrangement, education level, and presence of chronic illness. A similar trend was observed regarding sleep quality, with those reporting high social support having a 52% lower risk of poor sleep quality than those with low support. Consequently, the study concluded that perceived social support has a significant impact on both depression and sleep quality. (Grey et al., 2020).

Likewise, in a study by Ashida and colleagues conducted at the University of Iowa found that a trusted support network can help combat social isolation and loneliness, both of which place an individual at a higher risk for physical and psychological illnesses. Some of key illnesses that trusted support can combat include, high blood pressure, weakened immunity, anxiety, and depression. Therefore, the study concluded that having a strong support network has many positive benefits, that include, higher levels of well-being, better coping skills, and a longer healthier life, which makes help-seeking important in assisting manage mood and well-being (Ashida et al., 2019). A strong support network can also reduce the impact of depression and the associated anxiety and stress. Generally, support networks can be formal or informal. In this context, formal networks refer to support obtained from a health system; while informal networks include help from family members, friends, teachers, faith leaders, neighbours and peers (Ashida et al., 2019).

Whereas, early and effective treatment can improve outcomes and reduce the burden of mental health disorders, yet the treatment gap among university students remain nuanced. For

instance, a survey conducted in 21 countries reported that on average, only 6.4% of the students with MH disorders received treatment (Auerbach et al., 2018). In Kenya, the treatment gap for depression is not known; but, is believed to mirror rates for LICs. Patterns of MHS utilisation among students are shaped by accessibility, need for services and availability of resources. Other factors include sociodemographic and economic variables, preference of help sources, as well as racial and gender inequalities (Bruffaerts et al., 2019; Hubbard et al., 2018; Mwongela, 2018).

Despite having devastating consequences; fortunately, depression is not only highly treatable but also preventable (Oquendo et al., 2019). For example, 80–90% of the individuals with depressive symptoms eventually end up gaining some relief with treatment (APA, 2022). However, university students suffering depression tend to exhibit low rates of help-seeking behaviour due to their underutilization of mental health services. (Smith, et al., 2019; Summers et al., 2019; Lipson et al., 2019; Oswalt et al., 2020). Moreover, university students face several pressures since they have to live away from home and distant from their social support networks (Worsley et al., 2021) for the first time. As a result, they are forced to learn to balance competing demands of academics and other activities—making the period one of the most stressful times in the young person’s life.

Among the young adults aged 18-25 years, university students are a particularly vulnerable cohort. Depression in this population is correlated with poor academic achievements, drop-out, relationship instability, suicidal ideation and attempts, poor work performance, substance abuse, frequent illness, and poor physical and psychological health in general (Ngin et al., 2018). Further, university students face economic stress, living away from the family, and

making crucial lifelong decisions. This population find the period as both exciting and overwhelming (Parker et al., 2017). Depression during this early period can build up negative consequences in later adult life (Rao & Chen, 2022) due to transition challenges and the impact of depression on career prospects and social relationships.

Given the significant impact of depression on individuals, there remains a critical gap in our understanding of the full scope of depression's impact on university students. By identifying the reasons behind students' reluctance to seek help and the specific barriers they face, universities and policymakers can develop more effective targeted interventions and support systems that address their specific needs. Additionally, the interventions can mitigate the risks of depression, and foster a supportive environment conducive to their academic, personal, and professional development. These efforts would better address students' needs, reduce the risks associated with depression, and foster a supportive environment that promotes their academic, personal, and professional growth

2.4 Prevalence of Depression

At a global level, approximately 280 million people or 3.8% of the world population were believed to live with depression in 2020 (WHO, 2021). Further, studies have shown that the prevalence of depression varies in terms of gender, age (Auerbach, 2018), and region (Evans-Lacko et al., 2018). For example, studies consistently report higher rates of depression among females, occurring approximately twice more frequently than in men (Brody et al., 2018; Richier-Rossler, 2017; Salk et al., 2017; Shi, et al., 2021). As for age, the prevalence is at its peak in older adults—above 7.5% and 5.5% respectively, among females and males aged 55-74 years (WHO, 2017). Finally, in terms of region, prevalence varies from a low of 2.6%

among males in the Western Pacific Region to 5.9% among females in the African Region (Evans-Lacko et al., 2018). Generally, HICs report comparatively higher rates of depression compared to LICs (WHO, 2017). This represents a major health disparity.

In most of Africa, MH disorders have a long history of neglect, mainly due to structural barriers such as poor and out-dated health infrastructure, low coverage of health services, too few trained MH professionals, out-dated legal frameworks and policies, and inadequate investment (Qureshi & Eaton, 2020). Other limitations include, insufficient understanding of mental illnesses, stigma and discrimination, forcing many people to suffer in silence and consequently failing to reach their full potential. Often, those affected may experience abuse, including under settings that provide services, care and support. These factors reinforce the vicious cycle of mental ill health, poverty, and marginalisation which are a part of the African continent (Aguwa et al., 2022; Patel et al., 2018). The limited number of studies conducted across the African countries suggests that depression is often an under-prioritized issue by many governments. This is despite available data showing that the prevalence of depression among university students is reportedly high (Ssebunnya et al., 2019).

Only limited studies have assessed the prevalence of depression and even fewer have attempted to investigate why university students remain the least likely to seek help for emotional problems. Moreover, existing studies are either too old or lack important attributes such as the prevalence of depression. Additionally, these studies have several limitations. For instance, while the Kasomo (2013) study utilized the BDI-II for screening depression, it did not report the depression levels among university students. This is despite focusing on why university students remain the least likely to seek help for emotional issues.

In another study, students of Kenya medical training college were recruited to determine the effectiveness of psychoeducation. The study recorded high levels of depression among the participants—minimal 20.6%, mild 12.6%, moderate 18.4%, and severe 48.5% (Muriungi & Ndeti, 2013). However a major limitation in this study and others include, not utilising nationally representative samples and the same instruments to screen and measure the level of depression. Moreover, the situation may have changed significantly considering that the latest studies are over eight years old.

Globally, university students display a higher risk of developing depression (Hakami, 2018; January et al., 2018), and suffering from its impact (Ünalán et al., 2018). For example, studies report the prevalence of depression among students, to range from as low as 4% to as high as 79.2% (Ahmed et al, 2020). In terms of symptoms, between 24-34% of university students experience depressive episodes (Akhtar et al., 2020; Ngin et al., 2018) and at considerably higher rates compared to those found in the general population (Mirza et al., 2021). This is partly due to students having a unique cluster of stressful experiences or stressors (Saleh et al., 2017), but remain the least likely to seek help. On average, prevalence among university students is estimated at 35%, which is much higher than the rate reported among the general population (Hakami, 2018; Heinig et al., 2021; Mirza et al., 2021).

In the USA, depression among university students is estimated to range between 33–41% (Mayer et al., 2016; Othman et al., 2019; Rayelle, 2021); while, Asian countries report a rate of approximately 60% (Bakhtyari et al., 2020; Thi et al., 2019). In Europe, depression prevalence among university students ranges between 6.1 – 34.2% (Argyropoulos et al., 2017); while, Africa records rates ranging between 16.2 – 67% (Yusoff, 2018). However, Othieno

and colleagues have estimated the rate of depression among Nairobi university students in Kenya to be about 41.2% (Othieno et al., 2014); while Chesire and colleagues assessed the prevalence at 27.2% among Moi University students (Chesire et al., 2013). Given the Kenyan context, these studies vary widely in terms of the prevalence of depression probably due to utilising different diagnostic and assessment instruments. Also, while studies in the USA and UK involve all students, those in Africa employ a limited number of students. From a geographical viewpoint, the rates of depression differ from one region to the other. For instance, in 2018, approximately two in every five (41.1%) university students in the USA had moderate to severe depressive symptoms (Duffy et al., 2019); against approximately one in every three students in Europe (Argyropoulos et al., 2017). As for the Asian countries, three out of every five students were reportedly suffering depression (Bakhtyari et al., 2020; Thi et al., 2019).

Most studies report disparities in help-seeking behaviour due to gender in terms of coverage, externalising symptoms in diagnostic practices (Zulke et al., 2018); and study findings. While some studies show that depression affects more women than men (Kuehner, 2017; Salk et al., 2017); others report nil differences (Peltzer & Pengpid, 2018; Qi et al., 2020). Yet, other studies suggest that depression affects more men than women in certain situations (Mumang et al., 2021). For instance, surveys conducted in 2017, show that globally, depression is implicated more among females (5.1%) than males (3.6%) and the rate is higher among university students, than in the general population (Hakami, 2018; WHO, 2017). However, researchers lack a coherent explanation or reason for this disparity. Although several explanations have been offered for the observed differences, none can account entirely for the inconsistencies.

Despite lacking focus on disparities in help-seeking behaviours, researchers understand some ways in which depression affects sufferer's help-seeking capacities based on their demographic characteristics such as age and gender. For example, being female is a risk factor to experiencing depression and stress-related disorders (Richier-Rossler, 2017; Shi et al., 2021); while being male is a risk factor to struggling with addiction (Schimmenti, 2022). These differences are often associated with the interactions between biological and social determinants including gender stereotypes and roles, social stigma and inequity, as well as social autonomy. Therefore, prevalence is probably the most common measure used to quantify and characterise the burden of disease. It measures the frequency of occurrence among subjects in a population at a given point in time (Spronk, 2019). This technique is useful in identifying how the disease frequency may differ over time or among groups and subgroups of interest (Fontaine, 2018).

To assess the prevalence of depression, researchers utilise a random sample selected from the population of interest since there are increased chances of selecting a sample with similar characteristics as those of the target population. In addition, strategies such as weighting factors are also relied on to adjust sample characteristics to match those of the target population (Croft et al., 2018). The significance of this approach is to understand the salient features such as prevalence and determinants of the problem in a population. It can enable early detection through screening and prevention as well as improve functioning and well-being of persons with psychological difficulties. Students have to manage multiple academic and social pressures, but also navigate developmental challenges as they transition into adulthood (Wood et al., 2018).

Despite its usefulness, as a concept prevalence has important application limitations. For instance, arriving at the exact rate for MH disorders is highly unlikely because they are typically under-diagnosed, and underreported (Matlala et al., 2018; Ritchie, 2020). Second, MH statistics are poorly defined, measured and understood (Brown et al., 2020; Ritchie, 2020). Third, studies utilise various ways to report prevalence— by country, age, occupation, or gender (Hernandez & Kim, 2021; Ritchie, 2020) and without a specific reporting duration due to lack of consensus (Ritchie & Roser, 2018). Fourth, researchers employ multiple diagnostic instruments to screen and measure depression (APA, 2019; Priyamadhaba et al., 2017). Finally, confounding factors and comorbidities are more limitations, leading to poor formulation of interventions due to lack of a common design and methodology (Varela et al., 2017).

Employing various diagnostic instruments can result in un-comparable outcomes; thereby complicating and limiting the usefulness of this concept. To illustrate this point, consider a study by Dabana and Gobir (2018), conducted at ABU federal government University in Nigeria. The study employed a sample of 131 students and adopted the patient health questionnaire (PHQ) scale to screen for depression. Researchers found that the population had a very high prevalence of depression, about 58.2%. In terms of level of depression, 37.0%, 15.7%, 3.9%, and 1.6% of the respondents had mild, moderate, moderately-severe, and severe depressive symptoms, respectively. However, findings of a study by Wahed and Hassan (2017) conducted at Fayoum University, Egypt found a slightly higher rate—at 60.8%. Most likely, this inconsistency may be due to the scales used. Whereas, Dabana and Gobir (2018) used the PHQ scale, the Wahed and Hassan study used the Depression, Anxiety and Stress Scale-21.

Likewise, two studies were conducted, one in Jimma, Ethiopia (Ahmed et al., 2020), and another in Kolkata—West Bengal, India (Barman et al., 2018) among university students. Both studies employed the BDI-II scale as a screening and measurement tool. Whereas, the prevalence of depression among students in the Ethiopian study was reported at 28.2%, with 4% having severe depression; the rate for the Indian study was significantly lower—at 24 %, with the same level of severe depression. Clearly, the observed difference in the prevalence of depression in these studies cannot be attributed to the choice of measurement instruments. Perhaps, the most plausible explanation for the observed differences, may be attributed to differences in culture, religion, education system and lifestyle in the locations of study.

Despite lack of consensus on a specific period to report prevalence, three periods appear commonly employed in the literature to report prevalence—these are the point-prevalence; the 12-month period and the lifetime. The point-prevalence is the proportion of the population with the disease at a specific point in time, especially around the measurement period (Ritchie & Roser, 2018; Spronk et al., 2019); while the 12-month prevalence period is the proportion of the population with the disease at some time during a given 12-month period (Habibzadeh, & Habibzadeh, 2020). Finally, the lifetime prevalence is the proportion of the population with at least one encounter with a healthcare professional for a MH issue during a lifetime (Ritchie & Roser, 2018; Spronk et al., 2019). Consequently, the point-prevalence is a useful measure for studies constrained by time and requiring a short duration to complete.

From these observations, it is clear that methodology and instrumentation are critical components of research because they ensure the reliability, validity, and accuracy of the study. For this study therefore, the point prevalence approach was chosen to assess the prevalence of

depression among university students. This is because it is efficient and fast, allowing for a quick yet comprehensive analysis. Additionally, the researcher utilized Beck's Depression Inventory (BDI-II) scale to screen and measure depressive symptoms. This is because the instrument is widely recognized and trusted for its applicability across various age groups, as noted by Priyamadhaba et al. (2017) and the American Psychological Association (2019). Additionally, the chosen methodology and instruments were the most appropriate for investigating why university students remain among the least likely to seek help for emotional issues, ensuring that the study's findings are both reliable and meaningful.

2.5 Disparities in Help-seeking Behaviours

Help-seeking behaviours reflect the utilisation of healthcare services and is predicted by different sociodemographic factors, such as being female (Tomczyk, 2020b), older age (Mackenzie et al., 2019) and previous positive help-seeking experience (Velasco et al., 2020). The objective of this section was to review and report what literature says about the contribution of socio-demographic factors in affecting help-seeking behaviours among students in public universities suffering depression. Variables explored by this study included gender, age, marital status, year of study, Living arrangements, field of study, ethnic community and religious affiliation.

For decades, studies in health sciences have been conducted mostly and sometimes exclusively using male subjects (LoMauro & Aliverti, 2021; Yakerson, 2019); thereby neglecting any disparities due to gender in response to pathologies. However, from the turn of this century, several studies have consistently demonstrated the existence of gender disparities in help-seeking behaviours. For example, compared to females, males seek help and utilise MHS less

frequently across all ages (Parent et al., 2018; Rasmussen et al., 2018; Sagar-Ouriaghli et al., 2019) for depressive problems. In addition, young adults often seek help, more frequently from informal than formal sources (Magaard et al., 2017; Roberts et al., 2018). This disparity in help-seeking behaviour between males and females is largest during the young adult stage aged 16–24 years (Flannery et al., 2018); with only 9.1% of males compared to 26% of females (Rickwood et al., 2015).

According to research, more females than males seek support because women are more likely to disclose their problems (Sagar-Ouriaghli et al., 2019), and also due to the difference in gender norms and expectations. Plus, stigma related concerns generally impact female help-seeking behaviour less compared to males. Therefore, formal support may be appealing to young males, especially if offered via online platforms, just in the same way they are available for other professional problems, allowing them to maintain confidentiality and anonymity (Pretorius et al., 2019). Furthermore, a positive current or past relationship with a MH provider can as well act as a precursor to enable young males seek formal psychological support (Disabato et al., 2018; Velasco et al., 2020).

Despite the progress made in this direction, further research is needed to examine the contribution of gender in affecting help-seeking behaviours and provide a more coherent explanation. While studies from Western countries (less traditional) tend to report low rates of treatment-seeking, African studies have reported moderate rates (Bikwetti, 2021). For example, a study by Andoh-Arthur and colleagues, which utilised 270 students from a university in Ghana, revealed no significant gender disparities in treatment utilization (Andoh-Arthur et al., 2015). This finding differ sharply with other research, such as that by Oquendo

and colleagues, which identified a positive association between being female and help-seeking behaviour (Oquendo et al., 2019). These conflicting results highlight a significant gap in our understanding of gender dynamics in mental health. The unresolved nature of these discrepancies underscore the urgent need for further exploration to unravel the complexities of gender and help-seeking behaviour.

Similarly, multiple studies examining the relationship between age and help-seeking behaviours have produced mixed results. Research indicates that the coping strategies employed to manage specific stressors often vary with age. Young individuals prefer to seek help mostly from informal than formal sources. Such include, close friends and relatives, unlike older adults who prefer to consult formal sources (Pretorius et al., 2019). Despite the significant association between the likelihood to seek help and age (Magaard et al., 2017); results point to different directions. While some studies show that middle-aged or older adults seek help at higher rates than younger individuals (Mubanga et al., 2017); others have taken the opposite view (Velasco et al., 2020).

Current understanding of disparities in help-seeking, recognise gender and age as significant drivers of health outcomes – both as influencers in their own right, and through interaction with other determinants of inequity and vulnerability (Hawkes et al., 2017). Partly, this is because gender is a critical factor in determining the differential power and control, men, women, boys and girls have over the socio-economic factors, vulnerability and exposure to specific difficulties. It is for these reasons that disparity in help-seeking appears common among most psychological disorders including depression. These disorders, which predominantly affect one sex throughout the lifespan, impact roughly one in three individuals

in a community and represent a significant health concern (WHO, 2021).

However, it remains unclear whether the higher reported rates of depression in women are accurate or not. This is because depression in men is often masked by alcoholism and antisocial behaviours. Additionally, both age and gender play a role in shaping intentions to seek psychological help. Older adults tend to report more favourable intentions to seek help from formal sources compared to younger adults who tend to report more favourable intentions to seek help from informal sources. This difference cannot be fully explained by examining age alone.

Often, marital status is considered as a potential modifier and is one of the most frequently studied factors in relation to perceived social support and mental health. However, research specifically exploring the link between marital status and help-seeking behaviours is scarce. Nonetheless, the limited studies available consistently indicate that individuals in marital relationships tend to report lower levels of depression and higher levels of perceived social support compared to their unmarried counterparts (Harandi et al., 2017). Moreover, studies also indicate that separated, widowed, or divorced persons seek help far more often than persons in marriage (Parent et al., 2018; Jopp et al., 2021). While there is no direct evidence from the literature to suggest that marital status influences the use of MHS, social support and family ties have been associated with promoting help-seeking behaviours (Jacoby & Li, 2022).

Although MH clearly varies across certain demographic and social factors, relatively little is known about how it varies with respect to factors more specific to university setting, such as academic workload, field, and year of study. Differences between fields of study are a recent addition. For instance, medical students score significantly higher for depression and suicidal

ideation compared to age-matched non-medical student peers (McKerrow et al., 2020). Similar studies suggest that, while awareness of student's MH appears high, staff inclination to intervene is reportedly low (Spear et al., 2020). These conflicting results underscore the importance of defining the demographic and mental health profiles of students within the broader student population.

Another factor that is seen to occasion a variation in the prevalence of MH problems across groups is attending University without accommodation options. Rates are highest among students lacking options while those with options record the lowest rates. The type of institution is also cited as having an impact on service utilisation with those attending private institutions using services more than those attending public institutions. Prior research studies have lacked focus on particular variables, specifically living arrangements. However, in a recent study involving 89 participants—primarily students from the Seattle University community, USA; Pierce and Palmer, (2019) examined the relationship between living on or off-campus and help-seeking behaviours. The study found that living on campus was positively correlated with active coping, while living off-campus showed negative correlation.

It is against this background, that the study sought to primarily investigate disparities in help-seeking behaviours related to depression among university students. It focused on individual variables such as gender, age, marital status, year of study, field of study, living arrangements, ethnicity, and religious affiliation. Additionally, the secondary objective was to assess whether there were significant differences in help-seeking behaviour.

2.6 Facilitators to Help-Seeking Behaviours

Elevated depression underscores the need for increased utilization of mental health services (MHS) to address psychological needs. Yet, a significant number of university students show decreased rates of help-seeking behaviours, particularly from formal sources (Magaard et al., 2017; Roberts et al., 2018). Studies suggest that the usage of MHS is influenced by help-seeking intentions, perceived health needs, and structural or enabling factors that either facilitate or hinder access to services. Although research has identified this gap, there is limited focus on the specific factors that encourage help-seeking behaviours among university students. Moreover, much of the existing literature primarily focuses on adolescents.

Due to the limited research on factors that facilitate help-seeking behaviours, there is a lack of understanding about the key enablers of these behaviours (Mitchell et al., 2017). Additionally, existing research points to various facilitators in the utilization of mental health service (MHS), such as positive past experiences with help-seeking, favourable attitudes, support from social networks, and trust in healthcare professionals (Radez et al., 2021). These facilitators significantly impact help-seeking behaviours and have proved to be effective in encouraging individuals to seek care.

In the context of help-seeking, facilitators can be described as those factors which promote help-seeking behaviour for mental or physical health challenges (Barnes, 2019). Generally, facilitators can either be internally (own) or externally (others) motivated. Furthermore, studies suggest the possibility of reducing the treatment gap by increasing the number of healthcare professionals (Sagar et al., 2017); the use of technology (Johnson et al., 2022), especially by promoting awareness through provision of information on the status of MH or

suggesting help-seeking strategies to users for managing their own MH concerns.

To facilitate help-seeking behaviours, openness with friends and family and harnessing strong community support are important factors. In turn, these can result in increased rates of help-seeking, especially from formal help sources. To openly or plainly disclose depression, is premised on the existence of an established trusting relationship (Starcher, 2019). Openness is important because it enables individuals to seek and obtain support from family, friends and the community in general. As a coping strategy, openness can assist in enabling individuals to build a social buffer against stigma; thereby reducing isolation (McCann et al., 2016). However, cautiousness among students is further compounded by trauma, and its impact on their ability to trust people.

Multiple studies among university students have identified key factors influencing help-seeking behaviours, such as confidentiality, trustworthiness, and the expertise of help sources. Concerns about these aspects are often linked to access to services (Stevens et al., 2022). For instance, a research conducted in Australia emphasized the importance of a confidential and trusting relationship among young adults (McCann et al., 2016). In contrast, a study conducted in a rural U.S. town revealed that young participants, including teenagers and university students, expressed concerns about potential breaches of confidentiality when undergoing testing and treatment (Mathews et al., 2020).

Given the high burden of depression against a large treatment gap; it is important to determine the causal factors that make university students to delay or avoid seeking help. This study identified highly impactful help-seeking determinants among university students, using the TPB. This model suggests that utilisation of health care services depend on both motivation

(intention) and ability (behavioural control). More often, predisposing factors are social and demographic characteristics influencing decision making to use or not use MHS. These factors exist in individuals prior to their illness, such as age or gender. As for enabling factors; they include economic circumstances that facilitate service utilisation. The main ones are organisational factors affecting accessibility of MHS such as location and distribution of health care facilities. However, from the patients' perspective, this group of factors relate to knowledge about health service accessibility as weighed against an individual's financial situation.

Finally, need factors represent a likelihood of increased health service use, such as self-perceived health, chronic conditions, and restricted activity (Tesfaye et al., 2019). To aid a better understanding of the reasons for the treatment gap, it is critical to identify factors associated with help-seeking for depression, so as to inform healthcare providers areas to improve service access. Factors that influence help-seeking behaviours positively, tend to enhance identification and treatment. Specifically, timely access to MHS can be facilitated by having a previous positive experience with MHS use or help-seeking; being familiar with the sources of help, and good recognition of symptoms and problems (Velasco, et al., 2020).

Studies on help-seeking behaviours have identified various factors that motivate individuals suffering depression to seek help. Key among them include the availability, awareness, and accessibility of counselling services, along with proximity to them. Positive attitudes and past experiences (Eigenhuis et al., 2021), encouragement from social support networks (Sanghvi & Mehrotra, 2022), and confidentiality and trust issues in services (Barnes, 2019) play crucial roles. Other factors include having a good relationship with healthcare providers, recognizing

the severity of the problem, and emotional competence (Disabato et al., 2018). Good mental health knowledge further facilitates access to counsellors and fosters positive relationships between clients and counsellors (Chandrasekara, 2020).

To evaluate help-seeking facilitators, this study primarily focussed on identification of facilitators with a large impact on the utilisation of treatment services among university students. Secondly, the study examined the relationship between these facilitators and the help-seeking behaviour and to determine the likelihood for seeking help in the context of the given facilitators.

2.7 Barriers to Help-seeking Behaviours

Whereas university students are at a high risk of developing depression, they often show low treatment uptake and tend to delay or avoid seeking help for mental health issues. Understanding barriers that prevent students from seeking help can assist improve their academic performance. Also, understanding student experiences, including satisfaction with MHS, is critical to improving access to utilisation. As a result, prior research has examined several key areas impacting help-seeking behaviour because untreated depression has adverse consequences, including poor class attendance, low educational performance, and course failure. This section therefore, provides an overview of barriers to MHS utilisation identified in literature, the impact of barriers, and the correlation between barriers and help seeking behaviours.

In help-seeking literature, barriers refer to factors or concerns that prevent individuals from seeking help for mental health challenges, such as depression in the context of this study. Prior research have identified several factors responsible for preventing university students from

seeking help. These barriers include, stigma, embarrassment and poor MH knowledge, (Muhorakeye & Biracyaza, 2021; Shi et al., 2020; Velasco, et al., 2020) attitudinal and structural factors, low perceived need, and personal factors (Shi et al., 2020; Velasco et al., 2020), lack of time to seek treatment, comorbid substance use, socio-demographic variables, and chronic illness (Magaard et al., 2017; Roberts et al., 2018), breach of confidentiality and trust issues about MHS and healthcare professionals (Stevens et al., 2022; Velasco et al., 2020). Other less frequently reported barriers making individuals hesitant to seek help include, fear of being diagnosed with a psychological condition, (Velasco et al., 2020); severity of condition and desire for change (Moshe et al., 2020); location of help source, procedures for obtaining help, and affordability of services (Coleman et al., 2017).

Stigma associated with depression is a factor that concerns both help seekers help and healthcare providers. Individuals suffering depression are often labelled and stigmatised by society because their behaviour appears to deviate somewhat from the accepted societal norm (Stangor et al., 2019). As a result, society holds a negative stereotype, prejudice, and discrimination leading them to generate feelings of incompetence and low self-esteem—referred to as self-stigma (Ibrahim et al., 2019). Studies conducted among university students and other populations, have shown that stigma is a major determinant for help-seeking behaviour (Mendoza et al., 2018). In addition, Kenyan studies associate stigma due to depression with witchcraft, spiritual problems or the idea of ‘being a curse, thereby, stigmatising both the patient and their family members (Kanco, 2019).

Poor MH knowledge can lead to poor access and utilisation of MHS because health literacy is associated with knowledge about health and the healthcare system (Huang et al., 2019).

Moreover, having comprehensive knowledge is important in understanding the full range of individual and community health needs so as to provide accessible and equitable services. Further, having a good understanding of the health needs provides an opportunity to create interventions which improve health outcomes and reduce inequalities (Raghupathi & Raghupathi, 2020). Knowledge also assists to overcome impediments, and strengthen the health-care system.

Finally, personal barriers are impediments to desired outcomes whose function is to deter individuals from accessing MHS. These include, emotional competence, concerns regarding confidentiality and usefulness of treatments (Xiong et al., 2022). Other additional barriers include, low perceived need to seek treatment (Roberts, et al., 2020), difficulty in identifying symptoms (Sanghvi & Mehrotra, 2022), perceived fear of psychotherapy, the belief that there are not enough psychotherapists (Eigenhuis et al., 2021), and financial concerns (Bernaras et al., 2019). Furthermore, the limited research available indicates that prior positive help-seeking experiences (Cramer, 2017), support or encouragement from social networks (Roh et al., 2017), and; confidentiality and trust within the healthcare system (Stevens et al., 2022) can function as both barriers and facilitators. For instance, while comprehensive MH knowledge is likely to increase the rate of help-seeking, poor knowledge tend to decrease help-seeking behaviours among young adults with depression.

Available research shows that the treatment gap in developed countries ranges from 44—70% whereas in developing countries, it can reach up to 90%, primarily due to numerous barriers. These barriers significantly diminish an individual's willingness and intention to seek help or treatment (Sanabria, 2022). Additionally, men are less likely to seek help, while women are

more inclined to express their emotions. Factors such as the belief that the issue will resolve on its own (O’Cathain et al., 2020), lack of trust in mental health professionals (Magaard et al., 2017; Roberts et al., 2018), a preference for self-reliance (Bashir et al., 2020), reluctance to admit having a disorder, financial costs, long waiting times, and transportation challenges (Radez et al., 2021; Velasco et al., 2020) further contribute to delays or avoidance in seeking help.

Although, increasing the rate of help-seeking is beneficial; yet, evidence suggests that persons suffering depression are less likely or unlikely to seek help, especially from formal sources (Divin et al., 2018). Studies globally report a low prevalence of help-seeking despite a significant treatment gap for common mental health disorders (Jorm et al., 2017). This may be partly attributed to majority of the individuals with depression preferring to seek help from informal sources (Smith et al., 2019; Summers et al., 2019). This is for the reason that help-seeking is a crucial step in accessing care and support, that plays a key role in enhancing quality of life.

Many of the current studies on help-seeking focus on adolescents (Planey et al., 2019), university students (Mirza et al., 2021), and adults across various ages. However, few have addressed the specific barriers faced by university students, a crucial cohort due to their unique developmental stage (Lanoye et al., 2017; Wood et al., 2018). During this period of identity formation, students are likely to experience challenges such as self-doubt, social withdrawal, loneliness, and low self-esteem.

Whereas prior studies have identified numerous barriers and that they affect help-seeking negatively, it remains unclear which factors have the most significant impact on this

behaviour. For it is crucial to not only identify psychological barriers but also to assess their perceived influence on the desired behaviour change, helping students manage distress and adjust their lifestyles. Gaining this understanding is essential if the discrepancy between high prevalence and low access to treatment is to be addressed. Therefore, more insight on barriers is needed to provide direction on how to develop strategies, improve access to treatment and increase the utilisation of MHS.

In addition, individual factors, such as personal beliefs, internalised gender norms, coping skills, self-efficacy, and MH knowledge play a major role in explaining help-seeking behaviours and interact with structural factors such as accessibility and affordability of services (Theurel & Witt, 2022). Indeed, personal determinants such as personal preferences for self-reliance in managing their MH, negative attitudes about seeking professional help, a preference for informal sources of help, are major barriers to help-seeking behaviour among the young people (Radez et al., 2021; Salaheddin, & Mason, 2016).

Psychologically, help-seeking is a multi-step process that begins with recognizing the problem, determining if external help is necessary, selecting and requesting help, and ultimately processing the assistance received. For effective behavioural outcomes, recognition, readiness, ability, and willingness must align with the intended action. Any misalignment within these stages can lead to a gap in the help-seeking process (Tomczyk et al., 2020a). Several individuals have applied this psychological model to change from not seeking to seeking help. Factors influencing help-seeking behaviours negatively tend to delay early identification and seeking of treatment. Some of these include, negative attitudes and poor psychological knowledge, stigma, a preference of seeking help from informal sources,

low perceived need toward help-seeking, and a lack of affordability (Shi et al., 2020; Velasco et al., 2020). Beliefs about causal factors and help-seeking barriers, are likely to lead to a preferred source from where to procure help for depressive symptoms. Consultation for help from formal sources may be considered only if help from informal sources fail to improve the conditions (Velasco et al., 2020; Sanghvi & Mehrotra, 2022).

Interventions aim to keep barriers in check so as to increase the utilisation of MHS. This is possible by focussing on changing attitudes, inclinations and behaviours towards help-seeking behaviours. For example, prevention efforts targeting behaviour change have been successful in altering the utilisation of health services; such as comprehensive MH knowledge (Mutiso et al., 2018), de-stigmatization programs (Brunes & Heir, 2020), screening and prevention (Wood et al., 2018), and increased gatekeeper training (Reiff et al., 2018) among others.

Both universal and targeted interventions have been implemented with varying levels of success. Universal interventions, aimed at the entire population, have often failed to achieve consistent improvements in help-seeking rates. This highlights the need for targeted interventions that focus on at-risk populations already experiencing psychological difficulties (Sanghvi & Mehrotra, 2022). The primary objective of this study was to identify significant barriers affecting treatment utilization among university students. By pinpointing critical barriers, the study aimed to explore how they relate to help-seeking behaviours. Additionally, the study sought to examine the impact of the barriers on treatment utilization and determine the strength and direction of the relationship.

2.8 Confounders and Intervening Variables

Confounders are extraneous variables (i.e., those not under investigation but which have the potential to affect the outcome of a research study). The presence of such variables in a study affects the relationship between variables being studied in ways that the results fail to reflect the true position. Therefore, to confound, a variable must meet two conditions—be correlated with both the independent and dependent variables and also be causally related to the dependent variable (Thomas, 2022). In this context, a confounding variable is an unmeasured third variable that influences both the supposed cause and the supposed effect. To ensure internal validity, it is necessary for the researcher to account for confounding variables. If ignored, the outcome of the study may not reflect the correct position of the relationship between the variables of interest.

For this study, confounding variables included, social support, family support, spiritual support, and availability of MHS. To control the impact of these confounders, the researcher used statistical control and randomization. The study included the scores for the confounders as control variables in the regression models, thereby controlling the impact of the confounding variables. Any effect that the confounding variable has on the DV shows up in the results of the regression thereby allowing the separation of the impact of the IV. Alternatively, one can also minimise the impact of the confounding variables by randomising the values of the IV. For instance, one can randomly assign participants to a treatment group and others to a control group. The role of randomization is to ensure that with a sufficiently large effect size, all confounding variables—even those not recognized in the study—have the same average value between different groups. Since these variables do not differ by group assignment, they cannot correlate with the IV and thus cannot confound the study.

This method is widely regarded as the most effective way to mitigate the impact of confounding variables, as it allows researchers to address them comprehensively, which is otherwise nearly impossible. To account for potential confounding factors in this study, randomization was utilized, ensuring that religious affiliation, family background, or social type did not influence their inclusion. Additionally, discrimination in accessing mental health services was strictly prohibited.

2.9 Summary

Research shows that depression is a common yet serious and complex mental health condition, often characterized by persistent sadness (Chand & Arif, 2022). Despite its detrimental impact on the academic performance of university students, depression remains poorly understood and under-researched, particularly in low-income countries (LICs). Globally, university students report significantly higher rates of depression compared to the general population (Hakami, 2018; January et al., 2018; Mirza et al., 2021), a trend attributed to the increased socio-economic, physical, and psychological challenges they encounter.

Research shows that depression is a prevalent yet serious and complex mental health condition, often characterized by persistent sadness (Chand & Arif, 2022). Despite being detrimental on university students' academic performance, depression remains poorly understood and under-researched, particularly in low-income countries (LICs). Globally, university students report significantly higher rates of depression compared to the general population (Hakami, 2018; January et al., 2018; Mirza et al., 2021), a trend attributed to the increased socio-economic, physical, and psychological challenges they encounter.

Key factors contributing to elevated rate of depression include, financial constraints, uncertainty about academic progress, and poor mental health (Akhtar et al., 2020; Ngin et al., 2018). While early intervention and effective treatment have improved outcomes and reduce the disease burden, still a significant treatment gap persists. The higher rates of depression among university students, compared to the general population, can be attributed in part to their tendency to delay or avoid seeking treatment. This reluctance to seek help plays a significant role in the mental health challenges they face.

Consequently, help-seeking is an important behaviour in many ways; such as, enhancing prevention through timely intervention due to early detection and recovery (Velasco, et al., 2020); having the ability to minimise the cost and impact of disease outcomes, when sought early (Colizzi et al., 2020; Sharp, 2019); and, increasing the utilisation of MHS, by reducing risky behaviours and promoting a high quality of life (Velasco, 2020). Despite having debilitating consequences; depression is highly treatable and preventable (Oquendo et al., 2019). Help-seeking is therefore considered as being among the most effective strategies for mitigating against psychological challenges and enhancing mental wellness.

Depression among university students is not matched by a commensurate level of MHS use and the associated help-seeking behaviours. Instead, studies have observed a low prevalence of help-seeking against a high prevalence of depression, leading to a wide treatment gap. This discordant relationship between prevalence of depression and help-seeking behaviours is poorly understood. Given the benefits associated with early detection and prevention of psychological distress, there is every reason to seek for a clearer and better understanding why individuals suffering depression generally employ a delay and avoidance coping strategy.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology employed to steer this study, which seeks to examine depression and help-seeking behaviours among students in public universities. The chapter is organised into nine sections: the study location; research design; target population; the sample and sampling techniques; data collection instruments (DCIs); procedures for data collection; methods for data analysis; and ethical considerations.

3.2 The study Location

This study was carried out at Kisii University's main campus, located in Kisii town. The main campus is just two kilometres away from the town centre off the Kisii-Kilgoris Road. Kisii town is approximately 310 Kms travel by road from Nairobi, Kenya's capital city. The University is nestled in Kisii town, located in the southwestern region of Kenya, near Lake Victoria in Kisii County. Kisii County, borders Nyamira County to the northeast, Narok County to the south, and Homa Bay and Migori Counties to the west (see Appendix K).

The choice of Kisii university as the location to conduct this study was influenced by several favourable factors, that include, the abundance of success factors such as a high student population. Besides, we have no information to suggest that a similar study has been carried out at this location. Even better, the location is suitable because it is served by a well-developed road network and transport system. Moreover, the location is also ideal because KSU brings together young adults aged 18-25 years from diverse backgrounds. However, MHS are not as prevalent and readily available in Kisii town compared to other busy and bigger towns in Kenya.

3.3 Research Design

To explore the reasons behind university students remaining reluctant to seek help for their emotional problems, this study utilized a correlational research design. This approach was chosen to assess the strength and direction of relationships, which can be either positive or negative, as highlighted by Allen (2017). This design does not allow the researcher to control or manipulate variables. Instead, it gathers data through survey instruments. Additionally, the findings from correlational studies tend to have greater applicability to real-life situations since they are typically conducted on-site (Filipowich, 2018). Additionally, this design paves the way for further research by identifying potential connections between variables.

For instance, correlational research provides a robust starting point when exploring variables to establish initial relationships. It not only assists in determining the strength and direction of the connections but also lays the groundwork for refining the focus to identify causal links in subsequent stages. During the initial stages of a correlational research, the primary goal is to mostly confirm the presence and extent of relationships. This design serves the purpose of gathering data to draw inferences. Consequently, the data mainly pertain to the timeframe during or around which it was collected.

Correlational studies enable researchers to collect large amounts of data on multiple variables fairly quickly and inexpensively (Aggarwal & Ranganathan, 2019; Keith et al., 2017). Also, they utilize less labour-intensive data collection methods, such as surveys, questionnaires, archival data, and can reach a broader population through online platforms or phones, to capture a specific moment in time. Moreover, correlational studies can either be descriptive or analytical in nature. Descriptive studies are particularly useful because they aim at identifying

patterns or trends, while analytical studies aim to examine the associations between various factors influencing an outcome. Often, descriptive research is qualitative, whereas analytical studies can be both qualitative and quantitative. More importantly, a correlational design is suitable because data from surveys can be used for other research purposes, providing valuable insights for further exploration. However, correlational studies have limitations, especially in their ability to establish definitive causal relationships.

3.4 Target Population

The target population for this research comprised 18,430 undergraduate students enrolled at Kisii University for the 2022/2023 academic year. The study specifically focused on students aged 18-25 years, as they represent a rich resource of perspectives within the academic setting. This age group was selected because it encompasses the typical age range of young adults who are actively engaged in their undergraduate studies. By concentrating on this demographic, the research aimed to gain insights that are not only pertinent to this specific cohort but also applicable to the broader undergraduate population at the university.

3.5 The Sample and Sampling Techniques

In research, a sample refers to a subset of a population selected for the study. It is used to make inferences or draw conclusions about the entire population. To ensure accuracy and generalizability of results, the sample should be representative of the population it is drawn from. However, a sampling technique or method is the process or strategy used to select a subset of individuals, from a larger population. The goal of sampling is to obtain a representative group that accurately reflects the characteristics of the entire population, so that

the findings can be generalized to the entire population. To meet these expectations, this section is divided into two parts—the Sample and the sampling techniques.

3.5.1 The Sample

From a target population of 18,430 individuals, the study randomly selected a sample of 1104 participants. However, only 896 responded, meaning the conclusions drawn were based on data from these 896 respondents, who represented the target population. This sample is considered a fair representation of the student community at KSU and is consistent with power analysis recommendations, which suggest that a sample size of approximately 1000 cases is adequate for examining correlational relationships (Przybylski & Weinstein, 2019).

3.5.2 The Sampling Techniques

To obtain a representative sample, the study employed a proportionate sampling technique. This strategy is a type of stratified sampling where the population is divided into distinct subgroups (strata) based on a specific characteristic (e.g., age, gender, income level). In this technique, the sample size from each stratum is proportionate to the size of that stratum in the overall population. This ensures that each subgroup is represented in the sample according to its actual proportion in the population, leading to more accurate and reliable results.

To qualify for inclusion, a student must be registered for the 2022/23 academic year in an undergraduate course; be aged between 18–25 years old; not having taken more than three years of study; and, willing to complete a research instrument. However, participants who answered less than 80% of the total items in the questionnaire; those in their fourth year and beyond; aged below 18 years or over 25 years, were excluded. Questionnaires were responded to in a period of three weeks. Willing students were encouraged to complete survey

instruments in hard or on soft.

To give all eligible students an equal opportunity to participate, various promotional efforts were utilized to help them make informed decisions. The study was advertised through flyers, posters, and social media platforms. SMS reminders were sent to students, encouraging them to complete the questionnaire within the specified timeframe. Additional methods to boost participation included online and social media channels such as Facebook, Twitter, and WhatsApp. Details of the sampling frame are displayed in Table 3.1.

Table 3.1
Sampling Frame

Field of Study	Target Population				Sample Population			
	FY	SY	TY	Total	FY	SY	TY	Total
Agriculture & NRM	449	315	131	895	34	24	10	68
Arts and Social Science	1242	1906	765	3913	95	145	58	298
Business & Economics	1076	717	660	2453	82	55	50	189
Education & HRD	1542	1386	986	3914	118	106	75	299
Health Sciences	187	192	128	307	14	15	10	38
Information Science & Techno.	333	393	382	1108	25	30	29	84
Law	132	97	49	278	10	7	4	21
Pure & Applied Sciences	282	497	637	141	22	38	48	108
Total	5243	5503	3738	14484	400	420	284	1104
Percentage	36.5%	38.0%	25.8%	100%	36%	38%	26%	

Key: FY – First Years; SY – Second Years; TY – Third Years

Source: *KSU & Researcher Derivative*

Table 3.1 shows that the majority of the study participants were selected from academic

schools with a high population. Such schools include, school of Arts and social science, school of education and human resource development, and school of Business and Economics. Likewise, a higher participation is seen in years with a high admission of students. In terms of year of study, more respondents were selected from second years, followed by first and third years.

3.6 Data Collection Instruments

In research, data collection is arguably the most critical process across all disciplines. To ensure credibility, accurate and valid data must be obtained, which requires careful selection and application of appropriate data collection tools—whether existing, adapted, or newly developed. Clearly defining these instruments for proper use is essential to minimize errors. While methods may differ across fields, the primary goal remains the same: to gather reliable and truthful data. By combining the selection of suitable tools with clear usage guidelines, the chances of errors are significantly reduced.

This section introduces the five research instruments used in the study for data collection—the Demographic and Awareness Questionnaire (DAQ), Beck's Depression Inventory (BDI-II), Intention and Actual Help-Seeking Questionnaire (IAHSQ), Participant Survey Questionnaire (PSQ), and the Focus Group Discussion Guide (FGD-G). These instruments were self-administered using a combination of physical and virtual processes. Each instrument is discussed in the order presented.

3.6.1 Demographic and Awareness Questionnaire (DAQ)

This instrument was used to collect socio-demographic information from respondents as well as to assess their familiarity with sources of assistance. (See Appendix C). The tool is divided into two sections—one with eight items to solicit respondents' sociodemographic data and

section two with five simple Yes/No items; meant to gauge respondents' knowledge of sources of help. The socio-demographic data sought include, gender (male or female), age (under 18, 18-21, 22-25, and over 25), marital status (Married or Single); year of study (1, 2, 3); field of study (Education, health Sciences, and Arts, Humanities, commerce, management and others); living arrangements (off campus, on-campus- halls of residence); ethnicity (Kamba, Kalenjin, Kikuyu, Kisii, Luhya, Luo, and others). The second section comprises five Yes/No questions probing participants' awareness regarding the treatability of depression, as well as their ability to access counselling services from sources such as the university clinic, university counsellor, peer counsellor, and public hospitals. All measures were captured for the 'current' state (i.e., status as at the time of the survey).

3.6.2 The Beck's Depression Inventory (BDI-II)

The BDI-II consists of a 21-item, self-report and rating scale. It is widely used as a screening and assessment tool for depression (See Appendix D). Since its introduction in 1961, the BDI has undergone two major revisions—one in 1978, known as the BDI-IA, and another in 1996, to conform with the Diagnostic and Statistical Manual for Mental disorders 5th Edition [DSM-V] criteria (Hubley, 2014). The items of the BDI reflect the intensity of depression. Each item is rated using a four-point Likert like scale, between zero (0) and three (3) to reflect their intensity and are summed linearly to create a scale ranging from 0 to 63. Higher total scores indicate more severe depressive symptoms while low total scores indicate the contrary. In addition, a person scoring a total score of more than 13 is presumed to have screened positive for depression. The BDI-II is a reliable and valid measure for assessing depression in Kenya because the instrument is standardised and its psychometric properties validated in various populations including university students (Abubakar et al., 2016, Cassidy et al., 2018). Table

3.2 presents a guide on how to interpret the BDI-II scores.

Table 3.2

Interpret Beck's Depression Inventory-II Scores

S/No	Total Score	Level of Depression
1	0 – 4	Normal
2	5 – 13	Minimal (Borderline)
3	14 – 18	Mild Mood disturbance
4	19 -28	Moderate
5	29 -63	Severe

Source: *Adopted from Manual for the Beck Depression Inventory-II (Beck et al., 1996)*

As outlined in Table 3.2, achieving a score of 14 or above on the BDI-II scale suggests the presence of depression. A score falling within the range of 0 to 4 corresponds to “Normal,” while scores between 5 and 13 signify “Minimum” or “borderline.” A score spanning from 14 to 19 represents “Mild,” 20 to 28 stands for “Moderate,” and 29 to 63 indicates “Severe depression” (Shehata et al., 2018). Strengths of BDI-II include, easy to use given that it is relatively short compared to interview-based assessments; can be used to assess depression for persons aged 13 to 80 years old, and is commonly and widely used (APA, 2019; Priyamadhava, et al., 2017). In addition, its test-retest stability is high; $\alpha=.93$. Item content is also improved over the BDI-I to correspond with DSM-V. However, the weaknesses of the BDI-II include, containing a number of items that assess physical symptoms which may not be related to depression in certain patients.

3.6.3 The Intention and Actual Help-Seeking Questionnaire (IAHSQ)

To measure both intention and actual help seeking behaviour for depressive problems, this study employed an adapted rendition of a publicly accessible questionnaire on seeking assistance (Appendix E). The tool has ten (10) items in total; —four relate to intention to seek help while six explore actual help seeking behaviour. Items gauging prospective help-seeking behaviour or the intention to seek assistance were evaluated using a 7-point Likert-type scale. Respondents were asked to indicate their likelihood to seek help from a specific source. The scoring spans from 1, denoting “extremely unlikely,” to 7, signifying “extremely likely.” The sources of assistance to be evaluated encompass Informal sources (e.g., spouse, parents, friends, colleagues, relatives, minister, or religious leader); Formal sources (e.g., psychologist, psychiatrist, social worker, or counsellor); Phone helpline or online resources; and the choice to refrain from seeking help from anyone. Higher scores imply a stronger likelihood of seeking help. According to Wulf (2022), the intentions scale of the IAHSQ has adequate psychometric properties, especially among the youth. The scale demonstrates strong internal consistency (Cronbach’s $\alpha = .70$) and test-retest reliability ($r = .86$), along with moderate predictive validity and compelling convergent evidence for criterion validity.

Items probing actual help seeking behaviour were answered by respondents who had sought help within a period of six months prior to taking the survey. Help sources likely to have been consulted include, Intimate partners (e.g., wife or husband); Relatives, friends, and colleagues; Professionals specialising in mental health. (e.g. psychiatrist, psychologist); Medical practitioner/general physician, and helpline or Internet sources. Item ‘2a’ asked respondents to state if they have sought assistance for an emotional issue within the past six months. If the answer were in the negative, respondents were exempted from completing the tool. Actual help seeking behaviour was measured using “YES” scored 2 and “NO” scored 1. The scale

requires one to indicate whether or not they have sought help from the listed sources. Moreover, respondents were instructed to specify whether they had sought informal or formal assistance.

3.6.4 The Participant Survey Questionnaire (PSQ)

The research employed the PSQ tool (see Appendix F) to gather data evaluating the impact of obstacles and facilitators on help-seeking behaviours related to depressive symptoms. The tool is divided into two sections—the first deals with barriers and the second with facilitators. Section one comprises five parts with a total of 38 items. It was used to probe factors that include, stigma (10 items), attitudes towards the problem (10 items), structural barriers (7), knowledge barriers (5), and behavioural control (6). Section two is designed to explore factors that are hypothesised to positively influence the connection between facilitators and help-seeking behaviours. It encompasses 7 items focusing on elements such as previous favourable encounters, social support or affirmative encouragement, considerations of confidentiality and trust issues in service provision, favourable relationships with healthcare providers, sound mental health knowledge, the perception of the issue as significant, and emotional competence.

Respondents assessed the items utilising a 5-point Likert scale. They were instructed to indicate whether they had sought assistance from any of the sources listed. Furthermore, respondents were required to indicate which particular source was help sought from and whether or not help has been sought. Higher scores imply a stronger association and the direction of the association towards help-seeking depend on whether the scores are negatively or positively correlated.

3.6.5 Discussion Guide

Finally, the study utilised a Focus group discussion guide to collect further data from peer counsellors as key informants. The tool (See Appendix G) consists of 12 structured questions to guide the discussions. The issues range from knowledge of depressive symptoms, causes, prevalence among students, help-seeking behaviours, reasons for delay or avoidance of help-seeking, benefits for seeking help, ways of encouraging help-seeking, gender influence in help-seeking, factors facilitating help-seeking, strategies that universities have put in place to encourage help-seeking and how widely they are implemented.

This study chose questionnaires and discussion guides due to their associated strengths, such as yielding both quantitative and qualitative data. While questionnaires tend to be fixed and fast, discussion guides can be flexible and time consuming. Respondents also tend to be more honest, especially, regarding personal and sensitive issues when using a questionnaire because responses are captured anonymously (Rahman, 2017). While these tools are associated with many advantages, they also have disadvantages, which include, being-inaccessible to the illiterate population and bias due to differences in understanding and interpreting items. Equally, the discussion guide is associated with being tedious while the outcomes might be limited with bias. To control for such limitations, the tools were subjected to scrutiny by experts while pre testing was done carefully so as to ensure good adaptation.

3.6.6 Pre-testing of the Research Instruments

Conducting pre-tests on research instruments is of paramount importance as it aids in the identification and mitigation of measurement errors that can undermine statistical power and, consequently, jeopardise the consistency between studies (Caspar et al., 2016). Pretesting can also help surveyors to identify and address problems before they occur in actual survey

implementation (WHO, CDC, UNAIDS, FHI 360, 2017). Since the BDI and the IAHSQ are already validated, the concern in pretesting of these instruments was to find out if they can generate good data. Regarding the participant questionnaire and the IAHSQ, pre-testing focussed on assessing the validity and reliability of the instruments was the main objective of pre-testing. In this study, the research tools underwent pre-testing to identify items that were ambiguously or vaguely formulated, as well as those that were unclear. Inconsistent; illogical and invalid items. In addition, pretesting assisted the researcher determine if survey items convey the same meaning to all respondents, the amount of time required to respond to the questionnaire, and problems inherent in conducting data analysis (Singh, 2022).

Pre-testing involves the administration of a research instrument to a small population with similar attributes to those in the study, but away from the study area. In this present case, pretesting was conducted at Kabianga University, Kericho County using 60 students (equivalent to approximately 6.7% of the study sample). The sample applied is consistent with studies that recommend the use of a sample of at least 30—50 subjects to pre-test questionnaires (Aithal & Aithal, 2020, Hair et al., 2018). One third each of the pre-test sample was drawn from first, second, and third year students. Kabianga University was preferred due its proximity to participating universities, similar settings such as age since receiving its charter, and admits majority of the students from the same background. Therefore, Kabianga University was considered suitable as it has similar risk factors driving students into depression.

Non-standardised research instruments such as the PSQ tool, relied on the test-retest method, which entails the administration of the instrument twice on the same respondents, to test the

instruments. An interval of two-weeks between administrations was allowed. This period is considered adequate to deal with recall problems that this method is prone to. Subsequently, the coefficient of correlation between the scores obtained from the initial and second administrations was computed to ascertain the scale's reliability. If the resultant coefficient of correlation between the two administrations is greater than .80, the instrument was deemed reliable (Koo & Li, 2016), and therefore suitable for use for data collection. In addition, the resultant refinements if any, were then undertaken prior to employing the instruments for actual data collection. Data from the primary respondents was acquired through a survey methodology, employing a self-report questionnaire administered by the researcher in face-to-face interactions or via an online platform using a link to the study website.

3.7 Data Collection Procedures

This study collected both qualitative and quantitative data from undergraduate students at KSU's main campus. Prior to data collection, the researcher obtained necessary approvals and recruited and trained research assistants. Authorization was requested from KSU, the Kisii Teaching and Referral Hospital's Institutional Scientific and Ethical Review Committee (KTRH-ISERC), and the National Council for Science, Technology, and Innovation (NACOSTI). KSU issued a clearance letter to NACOSTI to facilitate a research permit, while KTRH-ISERC provided ethical approval. With the ethical approval in hand, the researcher applied to NACOSTI through an online platform, submitting the research proposal, national ID, passport photo, clearance letter (from SASS-KSU), and a fee of two thousand shillings. After fulfilling all requirements, NACOSTI granted the researcher a permit to collect data (see Appendix J).

To utilise research time economically, the researcher recruited research assistants to help in the implementation and management of field activities as well as carry out other activities related to the research. For example, research assistants were tasked to ensure that respondents are genuine students, administer research instruments and manage data. To improve on data collection, research assistants underwent a two-day training focussing on their role and responsibilities; successful administration of questionnaires; implications for non-compliance with ethical standards in research; scoring research instruments; team building techniques; and expected work output. This is meant to increase the research assistants' understanding of the research tools and provide information that was meant to help unify interpretation.

Recognizing the important role of research assistants, the researcher recruited individuals with strong integrity and responsibility. To achieve this, a clear recruitment criterion and expectations for work output were established well in advance of the hiring process. Six research assistants were selected based on their demonstrated understanding of research methodology, computer literacy, and proficiency in working with word processing and spreadsheet software, particularly Excel and Access. They also showed a willingness to learn and possessed strong administrative skills. Research assistants were tasked with administering questionnaires to respondents while the researcher supervised the process and provided ongoing support.

After obtaining the research permit, the researcher and the assistants conducted a pre-test of the Data Collection Instruments (DCIs) to ensure the items were clearly formulated and conveyed consistent meaning to all respondents. The pre-test also assessed whether the instruments were easy to use, could be administered within a reasonable time frame, and

helped identify any sensitive or confusing items that needed replacement. Any issue or error found during the pre-test were corrected before using the instruments for actual data collection. Simultaneously, the researcher tested the accuracy and feasibility of the initially proposed data input, management, and coding, even though the pre-test results themselves might turn out to be meaningless. Preliminary analyses and tables were generated to evaluate the efficiency of the entire process, from data collection to final analysis. Once the DCIs were confirmed to be effective, the actual data collection began.

While the process of pretesting and refining the Data Collection Instruments (DCIs) was underway, the researcher concurrently engaged in briefing various entities such as the Commissioner of the County, County Director of Education of Kisii County, and the Deans of schools about the forthcoming study. This is for information and asking of any assistance necessary to deliver a successful study. The researcher provided copies of the research permit, letter of introduction and other relevant documents and agreed on roles their offices were to play as well as informing the administration of her intention to carry out the study and secure their cooperation. Copies of the permit were presented to the County Commissioner and County Education officer.

Finally, research assistants recruited respondents by approaching them, elucidating the study's objectives and advantages, and those who expressed interest willingly volunteered to take part. They were then requested to furnish written informed consent (refer to Appendix B) or an affirmation for those using the online platform. Respondents then responded to a 20 minute questionnaire. Then research assistants extracted data and entered it into a research tool for analysis.

3.8 Methods of Data Analysis

This study utilised the IBM SPSS version 25, to perform data analysis at 95% confidence interval level. To facilitate the analyses, all qualitative and descriptive responses were transformed to quantitative and numeric data by assigning a numeric score to each response to enable assessment of the prevalence of depression by identifying respondents who screen positive and also measure the level of depression. Cleaning and coding of data was undertaken to identify inconsistencies, outliers, and missing values before conducting analyses. To assess the prevalence of depression, the researcher used descriptive statistics, such as frequency, ratios, and percentages (%). Further, those who screened positive were categorised according to the level of depression. To examine disparities in help-seeking behaviour, the researcher compared mean scores across the groups. These were calculated using standard deviations. Given that there are multiple factors, the use of both the t-test and ANOVA were handy because they compare means across two or more IVs by splitting the sample into two or more groups.

Furthermore, to evaluate the influence of barriers and facilitators, the researcher performed the regression analysis. Before conducting the regression analysis, the researcher carried out initial assessments to confirm that the data adhered to the assumptions of normality, linearity, absence of multicollinearity, and homogeneity of variance. In the data analysis phase, this study utilised Ratios and percentages to depict the magnitude of the relationship between dependent and independent variables. However, in the multivariate analysis stage, adjusted ratios were employed to portray the strength of association. Additionally, a manual backward elimination approach was used to reach the most economic model that incorporates factors linked to help-seeking behaviours among students in public universities. The results were

reported according to emerging trends and relationships and an explanation of any observation tendered on the conclusions reached.

Finally, qualitative data was collected by themes from the focus group discussions. The data was arranged in terms of themes that the respondents brought out for triangulation of sources to increase the validity of the study. Table 3.3 is a summary of the description of the techniques and level of analysis that each study variable was subjected to.

Table 3.3

Study Variables and approaches to Data Analysis

Objective	Measurement	Analysis	
		Technique	Level
1. Assessment of the prevalence of depression	Rate in percentage Percentage Level of depression	Frequency, Ratios & Percentage	Descriptive Statistics
2. Examination of the disparities in help-seeking behaviour.	Characterisation of help-seeking behaviours in terms of gender, age; marital status, year of study, residence, field of study, ethnic & religious affiliation.	Disparity analysis by way of mean scores, Ratios, Factorial ANOVA and the Tukey HSD's multiple comparisons test	Descriptive & Inferential Statistics
3. Evaluation of facilitators to help-seeking behaviours	Prior experience, social support, confidentiality & trust issues & positive relationship	Regression Analysis	Descriptive & inferential statistics
4. Determination of significant barriers to HSB	Stigma; Attitudinal; structural and depressive knowledge versus help-seeking behaviours.	Regression analysis	Descriptive & inferential statistics
5. Focus Group Discussions	Content analysis of student depression and help-seeking behaviour	Thematic analysis	Descriptive statistics

[Source: Researcher, 2023]

Table 3.3 shows that variables were analysed using descriptive as well as inferential statistics. This is because descriptive statistics provide basic information about a variable while inferential statistics are helpful in highlighting existing associations. The results showed how the variables affect the help-seeking behaviour.

3.9 Ethical Considerations

Ethics in research encompasses a wide range of considerations. However, in this study, the key principles prioritized were autonomy, beneficence and non-maleficence, justice, fidelity, confidentiality, and data protection. These core values were central to ensuring the integrity and ethical conduct of the research process. In the context of research, autonomy signifies that respondents possess the right to engage in a study willingly, devoid of coercion or undue persuasion. Their rights, dignity, and autonomy must be upheld and adequately safeguarded. An autonomous individual is one who has the ability to carry out their personal goals and act according to their own persuasion. To respect autonomy is exercising fidelity by refraining from contradicting one's beliefs and decisions, while also avoiding interference with their actions unless such actions are evidently harmful to others. Equally, researchers owe respondents a duty to protect those who have no capacity to make beneficial choices (Graham et al., 2021).

For example, researchers undertaking surveys are obligated to protect personal information and desist from disclosing it in ways that violate participant's privacy (Gelinas et al., 2017). To put this principle into practice, respondents were granted the opportunity to engage in the study only after furnishing informed consent (Baker, 2017). A sample of the written consent is included in Appendix B.

The second guiding principle is beneficence and non-maleficence. It stipulates that research should hold intrinsic value that surpasses any potential risks or harm. Researchers are consistently tasked with the objective of maximising the research's benefits while minimising potential risks of harm to both respondents and themselves (White, 2020). At the same time, researchers need to not only evaluate, but also inform respondents about the possible physical, social, or psychological harms or risks they are likely to be exposed to. Moreover, researchers should mitigate all foreseeable risks and harm by robust precautions, and carry out a risk/benefit assessment to reveal the likelihoods of potential harms and benefits stemming from conducting the research.

To unearth benefits accruing from a research enterprise, it is sometimes necessary to expose someone to some risk. Envisaging a research endeavour entirely devoid of risks, where harm is absent, is likely to impede numerous advancements in human well-being. In cases where respondents can derive direct benefits from the research, such risks are more defensible. However, if the study doesn't lead to direct respondent benefits, the broader advantages in terms of its potential to mitigate psychological or other adverse effects in the present and future can be utilised to justify research with a certain degree of risk, provided that a meticulous assessment is undertaken.

This study was assessed as a low risk enterprise, with the only likely risk of harm accruing from improper disclosure of the respondent's private, personal and sensitive information. In any case, disclosure must be in ways that reveal the identity of the respondent. This is likely to cause embarrassment, damage reputation, or result in a legal action (Bryman, 2018). The study employed three strategies to ensure that there were no improper disclosures. One,

information was given anonymously, and two, the information was kept confidential. Three, once information was given, it could not be disclosed in ways that could reveal the identity of the giver. However, if any need were to arise calling for disclosure, the due process could be observed.

The third principle is justice in research, which requires fair, impartial and respectful treatment of respondents throughout the course of the research (Bitter et al., 2020). Procedurally, this principle requires transparency in selection of respondents (i.e., no part of the target population should feel discriminated against), about the researcher's identity and the methods used. For this study, the researcher made a full disclosure in relation to selection criteria, researcher identity and methodology used, to protect the interests of those who have no capacity to make beneficial choices from exploitation. For example, the researcher endeavoured to recruit respondents after providing a truthful, transparent, honest and detailed description of the objectives, benefits, and risks (Gelinis et al., 2017) that can accrue from the study.

The fourth most important principle in research ethics that was considered is fidelity. This principle encompasses not only the concept of loyalty and faithfulness but also the aspect of honouring commitments. Additionally, respondents should be able to trust the researcher and have confidence in the investigative methods being employed. Therefore, the researcher should take care so that their behaviour does not threaten the cooperation between the parties and leave other obligations unfulfilled. Additionally, this principle requires that researchers guarantee the adherence to recognized standards of integrity while ensuring quality and transparency. For example, the principle prohibits fabrication and manipulation of data, falsification of documentation, and plagiarism. This principle was operationalised by the

researcher subjecting this work to a plagiarism check.

The fifth and perhaps the most important principle is confidentiality and data protection. It is crucial to honour both the individual preferences of research respondents and groups regarding anonymity, as well as respondents' stipulations concerning the confidential treatment and secure safeguarding of information and personal data. Other ethical considerations include conflict of interest and authorisation before embarking on research by relevant authorities. The autonomy of research must be unequivocal, and any potential conflicts of interest or bias should be dealt with. For instance, a conflict of interest occurs when a researcher's allegiance to the institution or a sponsor seems to compromise the research's independent conduct by yielding personal benefits to themselves, a family member, or another individual with whom they share a close personal relationship. To adhere to this principle, researchers are obligated to disclose anything that might be interpreted by others as a conflict of interest. For this study, no conflict of interest was disclosed because truly there was none.

Finally, for this study, respondents with prior depressive episodes were likely to experience some discomfort after completing the questionnaire; but, the discomfort is largely transient. However, respondents were cautioned that they needed to report to the research team to arrange for a debriefing session if they felt prolonged discomfort. Lastly, the study sought and obtained institutional (KSU) authorisation (see, Appendix H); Ethical Approval (see Appendix I), from KTRH-ISERC. This is because respondents scoring highly on the BDI scale may be linked to health care facilities such as the MOH, University clinic or KTRH for diagnosis. National (NACOSTI) authorisation (see Appendix J) was also sought.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents a summary of the study's results, followed by a discussion highlighting key findings. This approach was used to explore the reasons behind university students' tendency to delay or avoid seeking help for emotional challenges, despite their heightened risk of experiencing depression. While various explanations have been proposed for this behaviour, none fully accounts for the inconsistencies observed. Researchers continue to grapple with a coherent explanation for the disparity, making this investigation particularly significant in understanding the underlying factors.

To deal with the study question adequately, this chapter is organised into five sections—first, Characterisation of study respondents; second, the prevalence of depression; third, help-seeking disparities; fourth, evaluation of facilitators to help-seeking behaviours and, fifth, determination of significant barriers to help-seeking behaviour among students in public universities. Data collection was done using questionnaires and a discussion guide. Both descriptive and inferential statistics were utilized in analysing data generated in the course of the study.

4.2 Respondents' Demographic Characteristics

This section focuses on identifying the social and demographic characteristics of the study sample, who comprise of Kisii University students enrolled for the 2022/23 academic year. Kisii University, is a large public institution in Kenya, that admits students using the government's central placement system. The system ensures that learners from diverse regions of the country are accorded equal opportunity without bias toward gender, age, ethnicity, or

religion. Admission is based on both preference and merit, resulting in a student body with a rich social and demographic diversity. Accordingly, this section is divided into two parts: response rate and Social and demographic characteristics of study respondents.

4.2.1 Response Rate

In survey research, the response rate, also known as the completion or return rate. This metric represents the number of individuals who actually respond and submit the survey, either fully or partially completed. Typically, the number of surveys returned is divided by the number of surveys administered and expressed in percentage form to indicate the rate. This metric is critical due to the significance placed on response rate. Moreover, tracking surveys is considered important for the reason that a low return rate is suspected to give rise to unrepresentativeness likely to affect the accuracy of conclusions reached. Such bias can severely compromise inferences, especially if non-response is systematic and coupled with a low return rate.

As a result, response rates have traditionally been regarded as a key indicator of study quality, based on the belief that higher return rates lead to more accurate findings. However, there is little solid evidence to support the notion that response rates directly affect the accuracy of study results. Moreover, examining the relationship between non-response rates and the precision of survey data is a complex, nuanced, and costly process. Consequently, only a limited number of well-designed studies have empirically investigated the impact of low response rates.

To arrive at the size of the desired sample, researcher tradition was utilised. Essentially, the tradition argues that “a good maximum sample is usually around 10% of the study population,

provided the size does not exceed 1000 cases” (Fox, 2022). Applying this tradition and using a random selection strategy, the study selected and invited 1104 students in proportion to their population across all fields of study. After providing written consent, the researcher administered questionnaires to the selected respondents. The study then monitored both the questionnaire completion and return process. In addition, questionnaires were screened for completeness and adherence to the inclusion criteria. Consequently, not all returned surveys validly qualified for inclusion among those analysed.

To be included in the analysis, Respondents were required to meet the following criteria: fall within the age range of 18 – 25 years, implying that anyone below 18 or above 25 years of age does not meet the inclusion criteria. Moreover, the invitation was extended exclusively to undergraduate students, specifically those within their first year (FY), second year (SY), or third year (TY). In addition, Respondents were required to indicate their field of study. However; for any incomplete questionnaire to qualify, it should contain not less than 80% of the required data. Table 4.1 provides a summary of the data relating to the establishment of the valid questionnaires—hence the sample utilized for this study.

Table 4.1
Determination of Study Sample

Field of Study	Administered	Returned	Excluded	Valid	Percentage
Education	299	299	0	299	100.0
Arts & Social Sciences	298	190	6	184	61.7
Business & Economics	187	148	3	145	77.5
Pure & Applied Sciences	108	78	8	70	64.8
Information Science	84	80	2	78	92.9
Agriculture	68	64	4	60	88.2
Health Sciences	39	39	0	39	100.0
Law	21	21	0	21	100.0
Total	1104	919	23	896	81.2
Percent	100%	83.2%	2.1%	81.2%	

Source: *Derived from Survey data collected for this study*

Table 4.1 shows that the study successfully enlisted a total of 1104 students identified from various academic disciplines. The recruitment of study respondents was aligned to ensure that representation from each discipline was proportional of the entire student population. Results of the analysis indicate that the number of fully completed and returned questionnaires across different fields of study, ranged between 61.7% and 100%. As a result, out of a total of 1104 surveys administered, 919 were returned, accounting for 83.2% response rate. Besides, returned surveys were subjected to scrutiny to confirm adherence to the inclusion criteria. Accordingly, 23 (2.1%) of the completed and returned questionnaires failed to meet the inclusion criteria and consequently excluded from the analysis. To carry out analyses, this study relied on a sample of 896 respondents after discarding surveys that did not meet the inclusion criteria.

4.2.2 Respondents' Demographic Characteristics

This present study drew Respondents from among undergraduates enrolled at KSU for the

2022/23 academic year. Table 4.2 presents results of the analysis.

Table 4.2

Distribution of Respondents by Socio-demographic Characteristics

Variable	Category	Frequency (n)	Percentage (%)
Gender (n=896)	Male	473	52.8
	Female	423	47.2
Age (n=896)	Co1	594	66.3
	Co2	302	33.7
Marital Status (892)	Single	856	96.0
	Married	36	4.0
Year of Study (896)	FY	390	43.5
	SY	280	31.3
	TY	226	25.2
Living Arrangements (n=885)	OCWF	71	8.0
	OCWFS	736	83.2
	OCHR	78	8.8
	Education	299	33.4
Field of Study (n=896)	Health Sciences	39	4.4
	Arts and Social Sciences	184	20.5
	Business & Economics	145	16.2
	Information Technology	78	8.7
	Law	21	2.3
	Pure and Applied Sciences	70	7.8
	Agriculture	60	6.7
	Kamba	75	8.6
	Kikuyu	67	7.7
Ethnicity (n=873)	Kisii	218	25.0
	Kalenjin	127	14.5
	Luhya	160	18.3
	Luo	164	18.8
	Others	62	7.1
Religious Affiliation (857)	Catholic	279	32.6
	SDA	246	28.7
	Protestant	224	26.1
	Muslim	19	2.2
	Others	89	10.4

Note: Co1 – Cohort 1; Co2 – Cohort 2; FY – First Year; SY – Second Year, TY – Third Year; OCWF – off-campus with Family; OCWFS – Off-Campus with fellow Students; OCHR – On-Campus in Halls of Residence.

Source: *Derived from Survey data collected for this study*

Table 4.2 indicates that the total study population consisted of 896 respondents. Taken from a gender perspective, there were 473 (52.8%) males compared to 423 (47.2%) females. This distribution is a fair representation of students in public Universities and agrees with Cowling, (2023b) who observed that males constitute the majority of students in Kenyan universities – some, 322,760 (57.3%) compared to 240,170 (42.7%) women during the academic year 2022/2023. According to age, Table 4.2 shows that 594 (66.3%) respondents were aged between 18 -22 years, while 302 (33.7%) respondents were aged between 22 -25 years. This distribution aligns with the findings by Mbuthia et al., (2019) who observed that the majority of university students were aged between 17–20 years.

Table 4.2 reveals that 892 respondents provided information on their marital status. Of these, 856 (96%) reported being single, while 36 (4%) indicated they were married. Further analysis shows that 445 (49.9%) males reported being single, compared to 447 (50.1%) females. Conversely, a greater percentage of females (20 or 55.6%) indicated being married, compared to males. This pattern may suggest that women are more likely to leave the academic environment earlier than men, potentially to take on marital and family responsibilities. Regarding distribution according to the year of study, Table 4.2 reveals that 390 (43.5%) of the sample were in their FY, 280 (31.3%) in their SY, and 226 (25.2%) in their TY of study. Overall, the sample demonstrates a comprehensive representation spanning across various academic years within the higher education ecology.

Other demographic characteristics analysed included the respondent's living arrangements while attending university, field of study, ethnic community, and religious affiliation. In terms of distribution by living arrangements, students make a choice between living on- or off-

campus. Having opted for off-campus living, inevitably they have to live either with family or with fellow students. Table 4.2 shows that among the 885 respondents who responded to this item, a huge majority among respondents, 807 (91.2%) reported living off-campus while the rest, 78 (8.8%) indicated living “on campus in the Halls of Residence” (OCHR).

For those living off-campus, a majority 736 (83.2%) indicated living off-campus with fellow students (OCWFS) while a minority 71 (8.0%) indicated living with family (OCWF). This is compared to 78 (8.8%) who indicated living on-campus in halls of residence (OCHR). This finding holds important implications for understanding depression, particularly among students living off-campus (Pierce & Palmer, 2019). The additional burden of managing non-academic responsibilities, such as household chores, increases stress levels, especially for students who are away from their families. The strain of managing these additional responsibilities alongside academic pressures can contribute significantly to the challenges students face. Further, Chen (2020) reinforces this viewpoint in a study conducted among international students at Jiangsu Normal University, Xuzhou, China.

In terms of distribution by field of study, Table 4.2 shows that 299 (33.4%) respondents were from the field of Education, the largest group represented. Arts and Social Sciences followed with 184 (20.5%) respondents, while Business and Economics ranked third with 145 (16.2%). The fields with the fewest respondents included 60 (6.7%) from Agriculture, 39 (4.4%) from Health Sciences and 39 (4.4%), from the school of law. This distribution reflects the proportionate sampling methodology used in the study.

In terms of ethnic community, Table 4.2 shows that 873 respondents provided information on their ethnic background. Of these, 218 (25%) identified themselves as Kisii, making them the largest ethnic group in the study. The next largest groups were 164 (18.8%) Luo and 160 (18.3%) Luhya. Other significant ethnic communities included 127 (4.5%) Kalenjin and 75 (8.6%) Kamba followed by 67 (7.7%) Kikuyu. The sample also included a small number of respondents from various other communities, such as Meru, Rendile, Maasai, Kuria, Teso, Giriama, Somali, Turkana, Taita, Sabaot, Digo, and Pokomo, who were collectively grouped under "Others."

The broad representation of ethnic communities in the study is attributed to public universities central placement system, which does not consider a student's home county. Instead, placement is based solely on academic performance, the student's preferred institution, and available vacancies. As a result, Kisii University enjoys a diverse student body, with representation from both neighbouring and distant communities across Kenya.

Finally, based on religious affiliation, Table 4.2 shows that 857 respondents provided data on this metric. Out of this number, 279 (32.6%) identified with the Catholic faith, 246 (28.7%) with the SDA, 224 (26.1%) with Protestant denominations, 19 (2.2%) with Islam, and 89 (10.4%) with a mix of evangelical and African-based churches. This distribution indicates that the majority of university students are affiliated with Christianity.

Regardless of affiliation, religion can play a complex role in the experience and management of depression, offering both comfort and challenges. For many, religious beliefs provide a sense of purpose, community support, and hope, which can be crucial in coping with depressive symptoms. Activities like prayer, meditation, and participation in religious rituals

may offer moments of peace and connection, helping to ease feelings of isolation and despair. However, for some, religious doctrines or community expectations can intensify feelings of guilt, inadequacy, or unworthiness, especially when struggling to align their mental health with religious teachings. This dual nature highlights the importance of understanding how religion influences depression, as its effects can vary significantly depending on individual beliefs and the level of support within one's religious community.

4.3 The Prevalence of Depression

The first objective of this study was to assess the prevalence of depression among students in public universities in Kenya. Prevalence, as a measure of disease burden, reflects the number of individuals affected by a condition within a specific population, location, and time period. This metric is crucial for planning, as it helps healthcare authorities gauge the impact of a disease on both the social and healthcare systems at a given point in time.

Changes in prevalence can occur due to factors such as patient recovery or death, meaning that an increase or decrease in prevalence doesn't necessarily signal a worsening or improving situation. An increase might indicate either prolonged survival without a cure, a rise in new cases, or a combination of both. Conversely, a decrease could suggest higher mortality rates relative to recoveries or a reduction in new cases. Therefore, understanding prevalence is crucial for accurate diagnosis, reflecting the disease burden in populations, and assessing healthcare service needs to effectively manage the condition.

To assess the prevalence of depression, this study employed the point prevalence measure in which the BDI-II scale was used to screen and measure depressive symptoms among KSU students. Point prevalence is limited to assessing depressive symptoms within a continuous

period of two weeks ending by the time of data collection. This method was preferred because it takes a short time to become effective and is commonly and widely used for persons of all ages. Therefore, this section is organised into two parts—overall prevalence of depression and prevalence and socio-demographic correlates of depression.

4.3.1 Overall Prevalence of depression

To evaluate the overall prevalence of depression, respondents completed the BDI-II scale, a widely used tool for screening and measuring depression. The BDI-II scale consists of 21 items, each rated on a four-point Likert-like scale ranging from 0 to 3. The individual item scores were summed to produce a total score for each respondent, with possible scores ranging from 0 to 63. These total scores were then entered into the SPSS software for analysis. Cases with total scores between 0 and 13 were coded as 1, indicating a Non-Positive screen, while scores between 14 and 63 were coded as 2, indicating a Positive screen.

The data were further organized into five subcategories based on depression severity—two for “non-positive” screens and three for “positive” screens. Sub-category one, labelled “Normal,” included cases with scores between 0 and 4. Sub-category two, termed “Minimal,” covered scores ranging from 5 to 13. For “positive” screens, sub-category three, known as “Mild,” encompassed scores from 14 to 19. Sub-category four, or “Moderate,” included scores between 20 and 28. Finally, sub-category five, labelled “Severe,” covered scores from 29 to 63. The findings of the study are presented in Table 4.3.

Table 4.3

Level and Percentage of Depression

Level	Score Range	Frequency (n)	Percentage	Category
1. Normal	0 – 4	94	10.5%	NP
2. Minimal	5 – 13	365	40.7%	NP
Total	0 – 13	459	51.2	TNP
3. Mild depression	14 – 19	211	23.5%	P
4. Moderate depression	20 – 28	161	18.0%	P
5. Severe depression	29 – 63	65	7.3%	P
Total		437	48.8%	TP

Note: NP – Non-Positive; TNP – Total Non-Positive; P – Positive; TP – Total Positive.

Source: *Derived from Survey data collected for this study*

Table 4.3 shows that a total of 459 (51.2%) cases screened “non-positive” for depression compared to 437 (48.8%) who screened “positive”. In terms of level of depression, there were 94 (10.5%) cases within the normal sub-category range and 365 (40.7%) within the minimal sub-category range. Furthermore, 437 (48.8%) cases screened for the “positive” category. Within the category, there were 211 (23.5%) cases under the mild sub-category; 161 (18.0%) in the moderate sub-category, and 65 (7.3%) in the severe sub-category. Given that prevalence denotes the fraction of the population affected by a particular ailment at a designated moment in time; the study therefore, found that 48.8% (scores ≥ 14) of the cases screened positive for depressive symptoms. Hence, the prevalence rate

This finding does not align with a majority of studies that indicate the rate of depression among university students to be on average around 35% (Hakami, 2018; Heinig, 2021; Mirza, et al., 2021; Ngin, et al., 2018); but it aligns with studies indicating that the frequency of depression

among university students lies in a continuum—ranging from a low 4% to a high 79.2% (Ahmed et al, 2020). In any case, Yusoff (2018) observes that in Africa, depression among university students lies anywhere between 16.2% and 67%. The finding implies that one in every two university students may be suffering depression.

Further, this finding aligns with the view of majority of members in a focus group discussion (six out of eight) who expressed a strong consensus that “*depression symptoms among university students are highly prevalent*”. According to discussants, contributing factors include academic pressure, financial stress, and social isolation. They noted that the pandemic has worsened these issues, leading to a noticeable increase in anxiety and depressive symptoms. The group emphasized the urgent need for universities to enhance mental health support services, promote awareness, and create a more supportive campus environment to address this growing concern.

4.3.2 Prevalence and Socio-demographic Correlates of Depression

Prevalence represents the proportion of individuals in a population who are experiencing depression at a specific point in time, offering insight into the broader impact of the condition. Therefore, analysing socio-demographic factors such as age, gender, socioeconomic status, education, and location can help pinpoint groups that are particularly vulnerable to depression. For example, studies frequently report higher rates of depression among women, people with lower incomes, and urban residents. By examining these factors, healthcare providers and policymakers can more efficiently target interventions, tailor mental health services, and allocate resources to populations that are most at risk, ultimately enhancing public health outcomes.

Depression is implicated in outcomes that substantially impair functioning with profound personal, social, and economic consequences. This is especially disastrous given the age and stage of development of university students. It is against this background that the study undertook further analysis of the prevalence and socio-demographic correlates of depression among university students. The demographic factors analysed include gender, age, marital status, year of study, living arrangements, field of study, ethnic community, and religious affiliation. The study utilised the Chi-square (χ^2) test to indicate whether there were significant relationships between the demographic statistic and screening positive for depression. Table 4.4 displays detailed results for data analyses performed on the sample population.

Table 4.4

Prevalence and Socio-demographic correlates of depression.

Variable	Category	Positive	Negative	Total (%)	χ^2	P		
Gender (n=896)	Male	221	252	473 (46.7%)	1.684	.204		
	Female	216	207	423 (51.1%)				
Age (n=896)	Co1	289	305	594 (48.7%)	0.010	.944		
	Co2	148	154	302 (49%)				
Marital Status (892)	Single	417	439	856 (48.7)	0.023	1.000		
	Married	18	18	36 (50%)				
Year of Study (896)	FY	200	190	390 (51.3%)	4.418	0.109		
	SY	122	158	280 (43.6%)				
	TY	115	111	226 (50.9%)				
Living Arrangements (n=885)	OCWF	32	39	71 (44.9%)	.494	.794		
	OCWFS	362	374	736 83 (49.2%)				
	OCHR	37	41	78 (47.4%)				
	Education	146	153	299 (48.8%)				
Field of Study (n=896)	Health Sciences	20	19	39 (51.3%)	21.334	.287		
	Arts and Social Sciences	96	88	184 (52.2%)				
	Business & Economics	61	84	145 (42.1%)				
	Information Technology	26	52	78 (33.3%)				
	Law	9	12	21 (75%)				
	Pure and Applied Sciences	38	32	70 (48.7%)				
	Agriculture	41	19	60 (68.3%)				
	Kamba	44	31	75 (58.7%)			9.906	.297
	Kikuyu	35	32	67 (52.2%)				
Kisii	102	116	218 (46.8%)					
Ethnicity (n=873)	Kalenjin	52	75	127 (40.9%)	2.862	.743		
	Luhya	88	72	160 (55%)				
	Luo	75	89	164 (45.7%)				
	Others	29	33	62 (46.8%)				
	Catholic	141	138	279 (50.5%)				
Religious Affiliation (857)	SDA	122	124	246 (49.6%)	2.862	.743		
	Protestant	100	124	224 (44.6%)				
	Muslim	8	11	19 (42.1%)				
	Others	47	42	89 (10.1)				

Note: Co1 – Cohort 1; Co2 – Cohort 2; FY – First Year; SY – Second Year, TY – Third Year; OCWF – off-campus with family; OCWFS – Off-Campus with fellow students; OCHR – On-Campus in Halls of residence.

Source: *Derived from Survey data collected for this study*

While sex includes the biological differentiation between males and females, gender adds to it behavioural, cultural, or psychological traits attributed to a specific sex as defined by societal norms. These can evolve over time and manifest variations across different cultures. Therefore, it is crucial to look at gender in this study because depression affects each person differently and can influence the development of different patterns for males and females. Table 4.4 shows that depression is more prevalent among female students (51.1%) compared to (46.7%) among males. This finding aligns with many studies that have assessed the prevalence of depression. For instance, there is accumulated evidence to suggest that depression is more prevalent among females (Brody, et al., 2018; Richier-Rossler, 2017; Salk, et al., 2017; Shi, et al., 2021). This is because, compared to females, males seek help and utilise MHS less frequently for depressive problems across all ages (Parent et al., 2018; Rasmussen et al., 2018; Sagar-Ouriaghli et al., 2019).

Regarding gender and depression, respondents in a focus group discussion were evenly split on whether depression was more implicated in males or females. Although prior studies consistently suggest the existence of differences, our findings show no significant disparity between genders. This implies that while gender may play a role, other factors could be more influential in depression prevalence.

Age is also a significant attribute as far as depression is concerned. While depression can manifest at any point during the lifespan, its typical onset occurs during the young adulthood [18-25 years] stage (APA, 2022). There is also accumulated evidence to show that age negatively impacts emotions, thoughts, and behaviours across sexes and all walks of life. Moreover, further evidence indicates that age can function as a barrier in seeking help and that

coping mechanisms employed to address specific stressors tend to change with age. Furthermore, both younger individuals and older adults exhibit a willingness to seek help, albeit from different sources (Pretorius et al., 2019). For these reasons, age emerges as a pivotal variable in the exploration of depression and help-seeking behaviours.

Table 4.4 indicates that depression is slightly more prevalent among students aged 22-25 years (49%) compared to those aged 18-21 years (48.7%). This suggests that age may not be a significant factor in the manifestation of depression among university students. This result aligns with the conclusion reached by Wang (2019). However, studies aiming to determine the influence of age on depression are often challenging, particularly in university settings where students are generally within the same developmental stage. This is due to having little or no differentiation in terms of developmental capability given the maturity of the groups examined. These groups are nearly homogeneous; thereby accounting for the present findings.

Furthermore, Table 4.4 reveals that 417 (48.7%) respondents who identified themselves as single, screened positive compared to 18 (50%) who were married and screened positive. This implies that depression is more prevalent among the married than among single students. This finding contradicts evidence available from prior studies that consistently show that people in a marital relationship tend to report lower levels of depression (Harandi et al., 2017). Evidence by most studies on marital status and prevalence of depression suggests that prevalence varies significantly depending on whether one is married or not (Maiuolo et al., 2019). In any case, studies have demonstrated the possibility of social and demographic factors acting as barriers; and those implicated include, gender, age, marital status, and religious affiliation (Maiuolo et al., 2019). Additionally, studies also indicate that separated, widowed, or divorced persons

seek help more often than persons in marriage (Parent et al., 2018; Jopp et al., 2021). While there is no evidence from the literature to suggest that marital status influences the use of MHS, social support and family ties have been associated with promoting help-seeking behaviours (Jacoby & Li, 2022).

In this study, “Year of study” refers to the specific year in which a student is registered at the university, typically aligning with the student’s academic year of enrolment. Nonetheless, there are circumstances where the designated year of study does not correlate with the academic year progression. This discrepancy can arise in cases such as failure of modules or change of programs, which result in an absence of an equivalent academic standing in terms of status. For the purposes of determining the period of time a student has spent in the university, this study excluded underage (below 18 years) and over age (above 25 Years) students.

Consequently, in terms of year of study; Table 4.4 reveals that the prevalence of depression was notably higher among students in their first year (51.3%), compared to second and third years who accounted for 43.6% and 50.9% respectively. This shows that the rate of depression drops significantly during the second year but rises in the third year of study. This finding is consistent with studies conducted by Birhanu and Hassen, (2016) as well as Anyayo et al., (2022). Factors that are likely to contribute to this state of affairs include culture shock and freedom that ‘freshmen’ are exposed to on entry to university; academic workload and responsibility to maintain oneself at places of residency; and, living away from the family as well as making crucial lifelong decisions.

“Living arrangements” among university students, has been has been recognized as a key factor in determining whether or not, integration into social activities in university takes place appropriately. When students are accommodated at close proximity to the university, it helps them to meet after formal learning to socialise, develop friendships and support each other during their course. The benefit of university networks is a common understanding of the academic experience, possible sharing of resources and making academic support possible; thereby going a long way to suppress the risk of developing depression. Concerning living arrangements, Table 4.4 shows that living OCWFS is implicated with the highest rate of depression, accounting for 49.2% of depression compared to students living OCHR, or OCWF who account for 47.4% and 45.1% respectively. This finding is consistent with a recent study by Pierce and Palmer, (2019).

Moreover, the field of study is yet another characteristic that causes the prevalence of depression to vary. For instance, Table 4.4 shows that depression was most prevalent among students in Agriculture (68.3%), followed by those in Pure and Applied Sciences (54.3%) and Arts and Social Sciences (52.3%). The fields with the fewest cases of depression were Information Technology (33.3%), Business and Economics (42.1%), and Law (42.9%). Additionally, Table 4.4 reveals that depression was more common among the Kamba (58.7%), Luhya (55%), and Kikuyu (52.2%) compared to other ethnic groups, such as the Luo (45.7%) and Kisii (46.8%). This is because of the cultural differences that exist between different ethnic communities according to their regions.

In Kenya, Christianity is the predominant religion embraced by over 85.5% of the population. However, statistics show that as of 2019, among Christians, 33.4% were Protestants, 20.6%

Catholics, 20.4% Evangelicals, and 7% were from African Instituted Churches. Furthermore, nearly eleven percent (10.9%) of Kenyans were Muslim (Cowling, 2023a) . As Table 4.4 shows, the sample population consisted of 279 (32.6%) Catholics; 246 (29.1%) SDA's; 244 (28.5%) Protestants; 19 (2.3%) Muslims; and 89 (10.4%) others. Clearly, it can be seen that the majority of the sampled students were affiliated to the Catholics faith, followed closely by the SDAs and Protestants in that order.

Finally, Table 4.4 shows that depression is more common among students affiliated to the catholic faith (51.6%); followed by those affiliated to the protestant faith (44.6%) and the Muslims faith (42.1%). However, depression is least common among respondents affiliated to the SDA faith (30.0%). This finding is consistent with findings from prior studies. For instance, a study by Shapiro (2022) concluded that religion has a potential protective effect due to increased social networks and social contact through participation in church activities, and their belief systems. On the other hand, a possible explanation for the findings of a positive association between religion and depressive symptoms may hinge on the fact that religious affiliation can be accompanied by conflict, either with the family or with the larger society, resulting in stress and depressive symptoms.

In sum therefore, the number of undergraduates reporting depression is much higher compared to similar cohorts in the general population. This is due to university students having a unique cluster of stressful experiences (Saleh et al., 2017) that are likely to result into depression. It is for that reason that among undergraduates, depression has become an identifiable disorder requiring diagnosis, prevention, and treatment. Counselling and preventive mental health services such as routine screening should be made an essential part of the university setup. For

the model to work, it requires awareness and counselling campaigns to be heightened so that students can make informed choices to undergo screening. Such prevention measures can assist in reducing the prevalence of depression among university students.

4.4 Disparities in help-seeking behaviours.

The second objective of this study aimed to explore disparities in help-seeking behaviours among university students. This is because Help-seeking behaviours reflect the use of healthcare services and can be influenced by various socio-demographic factors, such as being female (Tomczyk, 2020b), older age (Mackenzie et al., 2019), and previous positive experiences with help-seeking (Velasco et al., 2020). As a result, the study examined how demographic factors like gender, age, marital status, field of study, year of study, living arrangements, ethnicity, and religious affiliation affect help-seeking behaviours.

To achieve this aim, the study utilised the “Compare Means” procedure to summarise differences using descriptive statistics across one or more factors, or categorical variables. However, only data that have been collected in a statistically valid manner – either through observations or experimentation using probability sampling methods can be used to perform valid statistical tests. As a result, the researcher needed to ensure that the data is statistically valid. To adequately meet expectations, this section is divided into three parts—Key Assumptions for Statistical data, overall help-seeking prevalence for depression and an examination of differences in the Help-seeking behaviour.

4.4.1 Key Statistical data

For a study to be statistically valid, it requires a sufficiently large sample that accurately represents the study population. The choice of statistical tests depends on understanding the

types of data and variables involved, as well as ensuring that the data meets basic requirements for these tests. Common statistical tests generally assume that: (a) the data follows a normal distribution (applicable to quantitative data), (b) the variance across comparison groups is similar (homogeneity of variance), and (c) only independent variables are tested, meaning related variables should not be included in the analysis.

Where data fails to meet these requirements (i.e., normality of data and homogeneity of variance); the available option is to perform a non-parametric test which allows comparisons to be made without worrying about these assumptions. To settle on the type of statistical test that need to be performed to determine significant differences between the means of the groups being compared; the study undertook a preliminary exploration to understand the nature of data. This is important because preliminary exploration can assist the researcher to understand the properties of the data and therefore decide on the appropriate test to be applied.

The first assumption tested was whether the data followed a normal distribution. To assess this, descriptive analysis was conducted using SPSS version 25. In this context, descriptive statistics refer to the analysis of data that helps summarize, illustrate, or describe it in meaningful ways, allowing trends and patterns to emerge. This type of analysis enables researchers to present data in a more organized and interpretable manner. For instance, the analysis might enable trends and patterns to emerge. Therefore, descriptive statistics enable researchers to present the data in more appropriate ways, which allow for interpretation. Table 4.5 summarises the statistics for the data used to describe respondents' depressive symptoms.

Table 4.5
Respondents Descriptive statistics

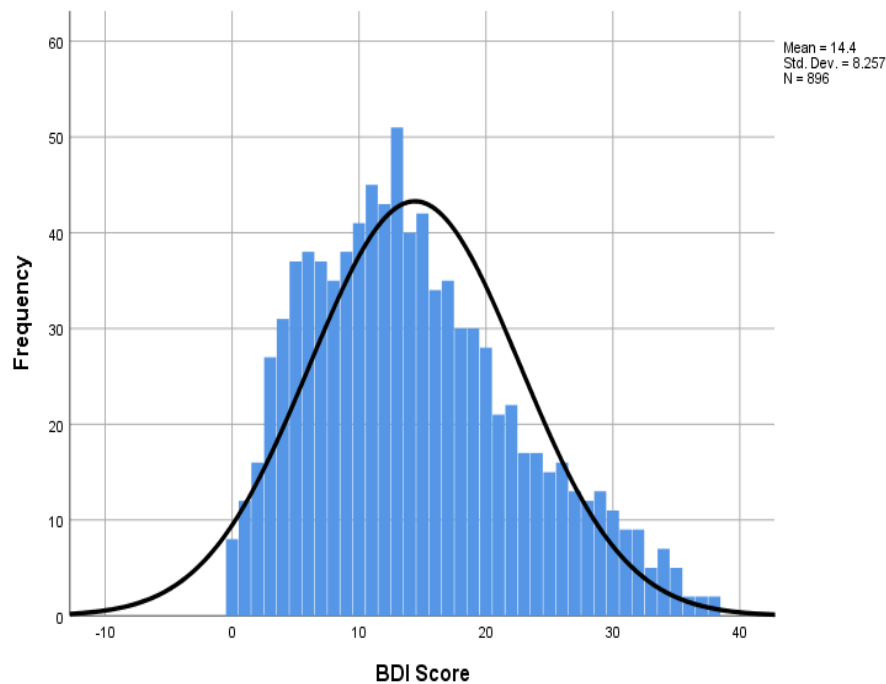
S/No	Statistic	Value
1	Frequency (N)	896
2	Minimum	0
3	Maximum	38
4	Mean	14.4
5	Median	13.0
6	Mode	13
7	Std. Deviation	8.26
8	Variance	68.18
9	Skewness	.544
10	Std. Error	.082
11	Kurtosis	-.313
12	Std. Error	.163

Source: *Derived from Survey data collected for this study*

Table 4.5 shows that the study sample consisted of 896 respondents, with a mean score of 14.4 on the BDI-II scale, compared to a median and mode of 13. The scores ranged from a minimum of 0 to a maximum of 38. The data exhibited a positive skewness of 0.544, suggesting that a moderate number of respondents reported lower levels of depressive symptoms. Additionally, the kurtosis measure of 0.313 indicates the presence of a few outliers, but these are unlikely to significantly distort the analysis. In conclusion therefore, the data has a fairly normal distribution and can be used for research. For clarity, the same data was arranged using a histogram alongside the normality bell shaped curve. Figure 2 displays the arrangement.

Fig. 2:

Histogram with normal distribution curve



Source: *Derived from Survey data collected for this study*

Figure 2 shows that just as in descriptive statistics, data is normally distributed but, with some outliers. The data is also slightly skewed to the right. However, the skewness may have little or no effect when applying a parametric statistical test.

The second statistical assumption to check when comparing the means of three or more independent groups on a continuous outcome variable is the homogeneity of variance. Levene's Test of Equality of Variances is commonly used for this purpose. If the p-value from Levene's test is greater than 0.05, it indicates that the variances are not significantly different, meaning the homogeneity of variance assumption is met. Conversely, a p-value below 0.05 suggests that the variances are significantly different, violating the assumption of equal variance.

Homogeneity of variance ensures that the distributions of outcomes in each independent group are equal or comparable. While this method is valuable for comparing means across more than two groups, one-way ANOVA has three key limitations: (a) it assesses only a single factor and a single dependent variable; (b) the dependent variable must be normally distributed within each group, with similar variability across groups; (c) as an omnibus test statistic, one-way ANOVA can identify that at least two groups differ but cannot specify which groups are different. To determine the specific groups, researchers use post hoc tests.

4.4.2 Overall Prevalence in Help Seeking for depression

Help-seeking for emotional concerns is crucial for students aged 18-25, the typical age range for undergraduates. This is because untreated depression can severely impair functioning, leading to poor academic performance, difficulties in completing studies and graduating on time, relationship problems, and even suicidal thoughts and attempts. To improve survival chances, it is essential to seek help willingly, especially for mental health problems, as reluctance can diminish those chances. Therefore, delaying or avoiding help can worsen mental health problems and increase the risk of severe outcomes, including death.

In addition, help-seeking can be enhanced depending on the individual's perception of the severity of the illness; in that individuals feel more compelled to seek help, if the illness is perceived as severe (Zimmerman et al., 2018). However, the choice of a help source depends on what one believes to be the cause of the illness (Jones et al., 2018). Most people believe that mental illnesses are caused either by a super-natural or organic cause. Consequently, a majority of the people with psychological difficulties attribute their problems to supernatural causes. They then would rather seek help from informal sources first before turning to formal ones.

To explore the prevalence of help-seeking behaviours, the data were organized and coded, with "Sought help" assigned a code one (1) and "Sought no help" assigned a code two (2). A frequency count was performed using the SPSS version 25 to find out the number of persons who sought help for emotional problems compared to those who “sought no help”. Results of the analysis show that out of a total of 896 respondents, nearly two thirds 593 (66.2%) answered the question “have you sought help for an emotional problem during the past six months?” compared to 303 (33.8%) respondents (i.e., slightly over one third) who failed to answer the question. Table 4.6 displays the results of the analysis.

Table 4.6
Help seeking Behaviours

	Freq (n)	Percentage		
		Raw	Valid	Cumulative
Sought Help	224	25.0	37.8	37.8%
Sought No Help	369	41.2	62.2	100%
	593	66.2%	100	
Non-Response	303	33.8%		
	896	100%		

Source: *Derived from Survey data collected for this study*

Table 4.6 reveals that 224 out of 593 respondents, representing 37.8% of the valid sample, reported seeking help for their emotional problems. This indicates a low rate of help-seeking behaviour among university students, likely due to the stigma surrounding mental health issues, as well as time constraints from academic and peer pressures. This finding is consistent with the findings from prior studies that include, Alonso et al., (2018); Bifftu et al., (2018)

and; Evans-Lacko et al., (2018). Existing evidence suggests that the majority of prior studies on help-seeking behaviours relied on qualitative methods, and as a result, they did not provide data on the actual rates of help-seeking. This study therefore, may be ground breaking somewhat; in that Kenya’s help-seeking rate is unknown.

When disease symptoms are severe, sufferers are typically more motivated to seek treatment, whereas mild symptoms often reduce the perceived urgency for care. If this were the norm, one would expect those who screened positive for depression to be more inclined to seek help than those who screened negative. To test whether this hypothesis holds true for depressive symptoms, the study performed a cross-tabulation between HSB and Screen, using SPSS version 25. HSB was split into two categorical groups—Sought help and Sought not help; while “Screen” was equally split into two categorical groups— “Non-Positive” and “Positive”. Cut-off scores for individuals who screened non-positive ranged between 0 -13; whereas the scores for individuals who screened positive ranged between 14 – 38. Table 4.7 displays the results of the analysis.

Table 4.7
Prevalence of Help-seeking for Depression

	Screen Positive	Screen Negative	Total	Percent
Sought help	127	97	224	37.8%
Sought no Help	183	186	369	62.2%
Total	310	283	593	100%
Percent	52.3%	47.7%	100%	

Source: *Derived from Survey data collected for this study*

Table 4.7 shows that out of 593 respondents who provided data on this item, only 224 (37.8%) sought help compared to 369 (62.2%) respondents who sought no help. However, in terms of screening for depression, 310 (52.3%) respondents screened positive; compared to 283(47.7%) who screened negative. This implies that among university students, a majority display a high prevalence of depression against low rates of help seeking behaviour. Table 4.7 also indicates that the rate of help seeking for depression was approximately 37.8%. This finding aligns with a number of prior studies that include, Narusyte et al., 2017; Sagar-Ouriaghli et al., 2019; Smith et al., 2019; and Summers et al., 2019. Similarly, these studies also arrived at the same conclusion that individuals suffering depression, specifically university students, depict a low rate of help-seeking behaviour, despite manifesting a high prevalence of depression.

Help-seeking is not only an important behaviour but also a critical step towards accessing care and support to improve the quality of life as well as everyday functioning. In addition, help-seeking is a crucial step towards the utilisation of treatment for depression. The quality of life can be improved by enhancing prevention through timely intervention due to early detection and recovery as well as good social and family life.

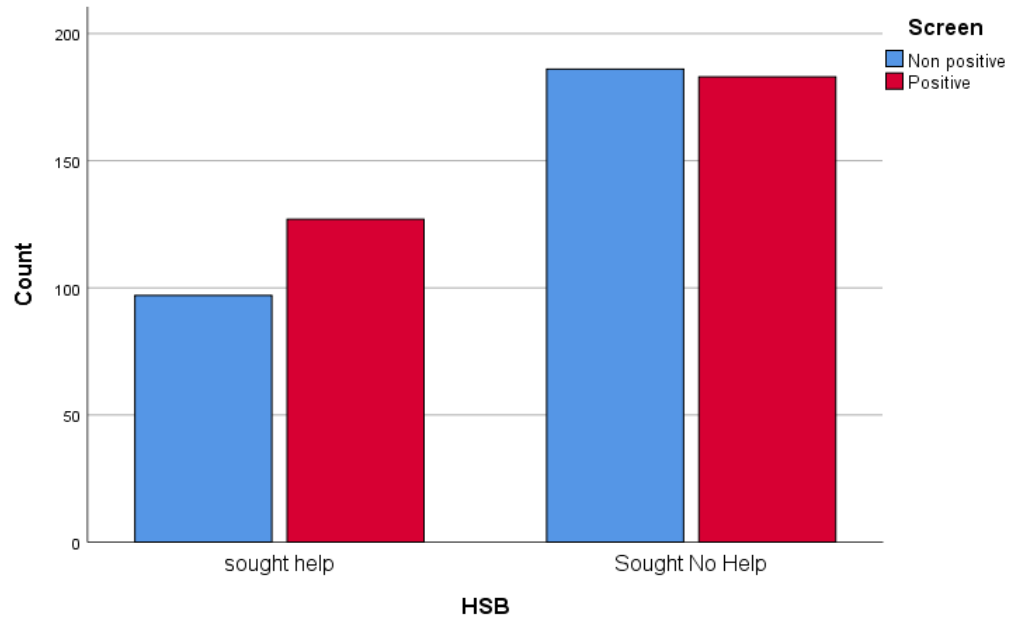
Respondents, in a focus group discussion agreed with this finding. A majority of them argued that where depression is highly prevalent it significantly influences help-seeking behaviour but there is often no greater awareness and understanding of the condition, which can reduce stigma and encourage individuals to seek help. When people frequently encounter discussions about depression, either through media, social networks, or healthcare campaigns, they are

more likely to recognize their own symptoms and feel more comfortable seeking professional support. Additionally, higher prevalence can lead to better-resourced mental health services, making help-seeking more accessible and culturally accepted.

Conversely, in populations with a low prevalence of depression, individuals are less likely to seek help due to a lack of awareness and understanding of the disorder. Because such populations rarely experience depression, it might contribute to greater stigma, leading to feelings of shame or embarrassment for experiencing depression symptoms. Those affected may not recognize such symptoms as signs of a treatable condition, or they may dismiss them as personal weaknesses rather than a mental health issue. This lack of recognition, combined with potential social and cultural barriers, can result in underutilization of mental health services and prolonged suffering without appropriate support. Figure 3 provides a comparison between respondents who indicated having sought help against those who indicated having not sought help.

Fig.3

Prevalence of Depression and HSB.



Source: *Derived from Survey data collected for this study*

Figure 3 shows that among respondents who screened negative, 97 (34.6%) sought help, while 183 (65.4%) did not. Similarly, among those who screened positive, 127 (40.6%) sought help, while 186 (59.4%) did not. These findings suggest that help-seeking behaviour is not influenced by whether a respondent screens positive or negative for depression. This may indicate a lack of awareness or reluctance towards depression, potentially due to factors like stigma, attitudinal barriers, structural challenges, or gaps in knowledge. In sum therefore, help-seeking appears unrelated to screening results.

Finally, the study attempted to analyse the association between intention and actual help seeking behaviour. This is because, research has argued rightly that intention does not equal to the overall help-seeking behaviour (Langford et al., 2018). Table 4.8 displays the number of respondents who showed intention versus those who actually sought help.

Table 4.8

Intended versus Actual Help Sought

Help Source	Intention to Seek Help		Actual Help Sought	
	Number	%	Number	%
Intimate Partners	30	5.1	14	22.6
Relatives & Friends	330	46.0	164	27.7
Mental health Professionals	275	42.2	94	15.9
General Doctor	275	46.4	130	21.9
Internet Sources	251	42.3	128	21.6

Source: *Derived from Survey data collected for this study*

Table 4.8 shows that slightly more than 40% of the respondents indicated having had intentions to seek help albeit from different sources. The most preferred sources include, relatives and friends by (46%), Mental health professional by (42%), the general doctors by (46.4%) and online sources by (42.3%) of the sample. However, the number of respondents who actually sought help was much lower than those who expressed intention to seek help.

In terms of source of help, more respondents indicated having sought help from relatives and friends (27.7%), compared to those who sought help from the general doctors (21.9%) and internet sources (21.6%). However, the study observes that only about half of the respondents who indicated harbouring the intention to seek help, actually sought help. This observation goes a long way to show that intentions are not a predictor of overall help-seeking. Secondly, prior studies have reported that the majority of individuals suffering depression seek help from informal sources. But older individuals are more willing to seek help mostly from formal sources such as Psychiatrists, Psychologists and counsellors (Pretorius et al., 2019).

4.4.3 Differences in Help-seeking Behaviour

Disparities in help-seeking are influenced by various factors that significantly shape health outcomes, both as individual contributors and through their interaction with other determinants of inequity and vulnerability. These factors partly influence the differing levels of power and control that men, women, boys, and girls have over socio-economic conditions, vulnerability, and exposure to specific challenges. As a result, disparities in help-seeking behaviours are prevalent across many psychological disorders. These disorders, often more common in one gender throughout life, affect approximately one in three individuals in a community and represent a serious public health issue (WHO, 2021). To examine differences in help-seeking behaviour, the first step entailed categorisation of variables. Table 4.9 displays the results of the categorisation.

Table 4.9
Categorisation of Respondents based on Help-seeking

Variable	Category	Sought		Total	Percent
		Help	No Help		
Gender (n=593)	Males	114	184	298	38.3
	Females	110	185	295	37.3
Age (n=593)	Co1	140	247	387	36.2
	Co2	84	122	206	40.8
Marital Status (n=591)	Single	214	367	571	37.5
	Married	10	10	20	50.0
Year of Study (n=593)	FY	88	168	256	34.4
	SY	86	117	203	42.4
	TY	50	84	134	37.3
Living Arrangement (n=579)	OCWF	19	28	47	40.4
	OCWFS	184	308	480	38.3
FOS (n=593)	OCHR	21	31	52	40.4
	Education	99	200	299	33.1
	Health Sciences	4	12	16	25.0
	Arts and Social Sciences	16	28	44	36.4
	Business & Economics	33	39	72	45.8
	Information Technology	35	42	77	45.5
	Law	4	5	9	44.4
	Pure and Applied Sciences	26	25	51	51.0
	Agriculture	7	18	25	28.0
Ethnicity (573)	Kamba	13	24	37	35.1
	Kikuyu	12	25	37	32.4
	Kisii	52	94	146	35.6
	Kalenjin	24	52	94	25.5
	Luhya	42	70	112	37.5
	Luo	39	69	108	36.1
	Other	18	21	39	46.1
Religious Affiliation (556)	Catholic	69	113	182	37.9
	SDA	59	101	160	36.9
	Protestant	62	97	159	39.0
	Muslim	5	7	12	41.7
	Others	15	28	43	34.9

Note: Co1 – Cohort 1; Co2 – Cohort 2; FY – First Year; SY – Second Year, TY – Third Year; OCWF – off-campus with Family; OCWFS – Off-Campus with fellow Students; OCHR – On-Campus in Halls of Residence.

Source: *Derived from Survey data collected for this study*

Table 4.9 shows that three variables (Gender, Age, and Marital status) fitted conveniently into two groups each. Further, in terms of gender, there were only 114 (38.8%) male students who sought help compared to 110 (37.3) females who indicated having sought help. This implies that male students are more likely to seek help than female students. Based on age, 140

(36.2%) respondents whose age fell into Co1 sought help compared to 84 (40.8%) whose age fell into Co2. This means that students aged between 22-25 are better help seekers compared to students aged between 18-21 years. Finally, in terms of marital status, 214 (37.5%) single respondents (not in a marital relationship), sought help compared to 10 (50%) who were in a marital relationship. This means that students not in a marital relationship (single) were less likely to seek help for depression than students in a relationship.

Year of study and Living arrangements were divided into three groups each. Based on year of study, there were 88 (34.4%) FY, 86 (41.3%) SY, and 50 (37.3%) TY respondents who sought help compared to 168 FY, 117SY and 84 TY who did not seek help. This implies that SYs were more likely to seek help compared to students in their first and third years. Further, based on Living arrangements, there were 47 (8.1%) students living OCWF, 480 (82.9%) living OCWFS and 52 (9.0%) living OCHR. Out of these students, those who sought help were 19 living OCWF, 184 living OCWFS and 52 living OCHR compared to 28 living OCWF, 308 living OCWFS and 31 living OCHR. This means that students living OCHR were more likely to seek help compared to those living off campus. This finding aligns with a recent study by Pierce and Palmer, (2019).

Finally, the remaining three variables—field of study, ethnic community and religious affiliation were categorised each into its own separate grouping. Religious affiliation fitted into a standalone five group category; ethnic community into a seven-group category; and, field of study into eight-group category. Equally, respondents were grouped according to their help-seeking behaviour—those who sought help and those who sought no help. The total number of respondents per group was calculated and expressed as a percent for the group. As

a result, the study opted to run an independent sample t-test for variables with two groups while the one-way ANOVA was used for variables with three or more groups. This is because t-test is best suited for variables that have specifically two groups only. However, one-way ANOVA is able to handle variables with three or more groups. The results of the t-test for independent samples are displayed in Table 4.10(a).

Table 4.10(a).

T-Test for Categorical Variables with two groups

Variables	Category	Freq. (N) %	Mean	SD	t-values	p- values
Gender	Male	298 (50.3%)	1.61	.488		
	Female	295 (49.7%)	1.63	.483		
Total		593 (100%)			.412 ^a	.681
Age	Co1	387 (65.2%)	1.64	.491		
	Co2	206 (34.7%)	1.59	.493		
Total		593 (100%)			1.100 ^a	.276
Marital Status	Single	571 (96.6%)	1.63	.484		
	Married	20(3.4%)	1.50	.513		
Total		591(100%)			1.134 ^a	.257

Note: Co1 – Cohort 1; Co2 – Cohort 2.

Source: *Derived from Survey data collected for this study*

The results from the independent sample t-test presented in Table 4.10(a), shows that the mean score of help seeking behaviours among female students was higher ($M = 1.63$, $SD = .484$) compared to that of their male counterparts ($M = 1.61$, $SD = .488$); implying that it is highly likely for more female students compared to their male counterparts to seek help in circumstances where they experience depressive problems. The mean difference between these two groups was not statistically significant at [$t(295) = .412$, $p = 0.681$]. This finding

agrees with prior studies showing that the male gender displays a low rate of help-seeking compared to their female counterparts (Sagar-Ouriaghli et al., 2019). The reason for such behaviour may be because females are more inclined to seek support and therefore tend to rely on seeking help. In addition, they are more likely to be knowledgeable of sources of help while males hold negative attitudes towards help-seeking because they fear being seen as dependent, which may be construed to imply having violated masculine norms—i.e., standards or rules that govern behaviour within a group or society. Other reasons might be due to the masking of depressive effects through alcoholism and antisocial behaviours in men. In addition, gender is implicated in influencing intentions to seek psychological help.

Given that depression can occur at any age (APA, 2022), and that coping strategies used to deal with a particular stressor tends to change with age (Pretorius et al., 2019); makes age a particularly important variable in the study of depression and help-seeking. To find out the existence of any disparities in help-seeking behaviours among the university student population, the study performed an independent sample t-test. Table 4.10(a) displays the results of the independent t-test. The table indicates that Co1 had a higher mean score ($M=1.64$, $SD = .491$) compared to Co2 ($M=1.59$, $SD= .493$), implying that students aged between 18–21 are more likely to seek help compared to their counterparts aged 22—25 years. However, the mean difference between these two groups was not statistically significant at [$t(387) = 1.100$, $p = 0.276$].

Despite this result being consistent with prior studies, it has other important implications. For example, the finding suggests that age is an important factor in help seeking behaviour in that younger individuals tend to seek help from informal sources (Pretorius et al., 2019) while older

adults favour seeking help from formal sources. This may be due to the fact that coping strategies dealing with different stressors tend to change depending on increase in knowledge about the disease condition and affordability of treatment—factors that vary with age. Other reasons include easy access to treatment services and taking personal responsibility. This finding is consistent with prior studies that found differences in help-seeking behaviours based on age (Auerbach, 2018; Evans-Lacko et.al., 2018).

Studies examining the association between age and help-seeking have produced mixed results. Despite, more studies indicating that age is significantly associated with help-seeking (Magaard et al., 2017); results point to different directions. Plus, the outcome also depends on the type of the disorder. For example, whereas depressive disorders show no age differences in help-seeking, bipolar disorders do (Wang, 2019). Further, coping strategies used to deal with particular stressors tend to vary with age. Generally, young individuals are more willing to seek help from informal sources such as close friends and relatives unlike older adults who are more willing to consult a formal source (Pretorius et al., 2019).

Age is an important factor in as far as depression among university students are concerned. It influences how individuals perceive and cope with mental health challenges. Younger students, who may be experiencing the pressures of university life for the first time, might lack the coping mechanisms needed to manage stress, anxiety, and depression effectively. The transition from high school to university can be overwhelming, leading to feelings of isolation, homesickness, and academic pressure, which can worsen depressive symptoms. Moreover, younger students may be less likely to recognize the signs of depression or feel comfortable seeking help, making them more vulnerable to the condition worsening over time.

On the other hand, older students suffering depression might face different challenges, such as balancing academic responsibilities with work, family obligations, or prior life experiences that contribute to their mental health struggles. They may carry the weight of past experiences or prolonged stress, which can compound depressive symptoms. However, older students are likely to have a better understanding of their mental health needs and be more proactive in seeking support, whether through therapy, medication, or peer networks. Age therefore plays a crucial role in how depression manifests, is recognized, and is managed among university students, highlighting the need for tailored support.

Literature consistently shows that people in a marital relationship tend to report lower levels of depression and higher levels of perceived social support (Harandi et al., 2017) compared to their unmarried counterparts. Further, studies also indicate that separated, widowed, or divorced persons seek help more often than persons in a marriage relationship (Parent et al., 2018; Jopp et al., 2021). While there is no direct evidence from the literature to suggest that marital status influences the use of MHS, social support and family ties have been associated in promoting help-seeking behaviours (Jacoby & Li, 2022).

To examine the association between marital status and help-seeking behaviours among university students, the study performed an independent t-test. A sample consisting of 571 (96.6%) not married compared to 20 (3.4%) married respondents was used to run the test. Further, statistics show that singles had a mean score of 1.63 while the married had a mean of 1.50 implying that single students are more likely to seek help compared to their married counterparts. However, the mean difference between these two groups was not statistically significant at $[t(387) = 1.100, p = 0.276]$. This finding contradicts prior study finding. While

there is no direct evidence from the literature to suggest that marital status influences the use of MHS, social support and family ties have been associated in promoting help-seeking behaviours (Jacoby & Li, 2022).

To compare the means for the rest of the socio-demographic variables, a one-way ANOVA was utilised because the variables were categorised into three or more levels (groups). For example, Year of study and living arrangements were categorised into three groups each, while, religious affiliation had five, ethnic community seven and field of study eight. Table 4:10(b) depicts the ANOVA output table for the rest of the variables.

Table 4.10(b).

ANOVA Table for Variables with three and more groups

Variables	Category	Freq. (N) %	Mean	SD	F-values	p- values
Year of Study	FY	256 (43.2%)	1.66	.476		
	SY	203 (34.2%)	1.58	.495		
	TY	134 (22.6%)	1.63	.485		
Overall					.760	.384
Living Arrangement	OCF	47 (8.0%)	1.60	.496		
	OCWS	490 (83.2%)	1.58	.485		
	OCHR	52 (8.8%)	1.63	.487		
Overall					.000	.984
FOS	Education	299 (50.4%)	1.67	.421		
	Health Sciences	16 (2.9%)	1.75	.447		
	Arts and Social Sciences	44 (7.4%)	1.64	.487		
	Business & Economics	72 (12.1%)	1.54	.502		
	Information Technology	77 (13.0)	1.55	.501		
	Law	9 (13.0%)	1.56	.527		
	Pure and Applied Sciences	51 (8.6%)	1.49	.505		
	Agriculture	25 (4.2%)	1.72	.485		
Overall					5.649	.018
Ethnicity	Kamba	37 (6.5%)	1.65	.484		
	Kikuyu	37 (6.5%)	1.68	.475		
	Kisii	146 (25.5%)	1.64	.481		
	Kalenjin	94 (16.4%)	1.55	.500		
	Luhya	112 (19.5%)	1.62	.486		
	Luo	108 (18.8%)	1.64	.483		
	Other	39 (6.8%)	1.54	.505		
Overall					.690	.407
Religious Affiliation	Catholic	182 (32.7%)	1.62	.487		
	SDA	160 (28.8%)	1.63	.484		
	Protestant	159 (28.6%)	1.61	.489		
	Muslim	12 (2.2%)	1.58	.505		
	Others	43 (7.7%)	1.65	.483		
Overall					.007	.984

Note: FY – First Year; SY – Second Year, TY – Third Year; OCWF – off-campus with Family; OCWFS – Off-Campus with fellow students; OCHR – On-Campus in Halls of Residence.

Source: *Derived from Survey data collected for this study*

Results displayed in Table 4.10(b) show that help-seeking behaviour varies based on socio-demographic characteristics. Those investigated in this study include, year of study, Living arrangements, ethnic community, and religious affiliation. “Year of Study” comprised three groups—FY, SY, and TY. The overall F-Value is 0.760, with a P-value of 0.384. This means that there was no significant difference among the means of these three year of study groups. The P-value is much higher than the conventional significance level of 0.05, indicating that any observed differences in means are likely due to random chance rather than actual group differences.

In terms of “Living Arrangement” the sample was categorised into three categories—OCWF, OCWFS, and OCHR. The overall F-value is 0.000, and the p-value is 0.984. This means that there is no significant difference among the means of these three living arrangement groups. The p-value is much higher than the conventional significance level of 0.05, indicating that any observed differences in means are likely due to random chance rather than actual group differences.

As for the “Field of Study”, it was categorised into eight groups with differing frequency count. The overall F-value is 5.649, and the p-value is 0.018. This indicates that a statistically significant difference exists among the means of the various fields of study. The p-value—0.018; is below the 0.05 significance level, suggesting that the differences in means are not likely due to random chance but that there are actual group differences in the field of study variable.

As concerns “Ethnic community”, it was categorised into seven groups with different frequency counts. The test resulted in the overall F-value of 0.690, and the p-value of 0.407.

This result indicates that there is no significant difference among the means of the ethnic groups. This is because the p-value (0.407) is much higher than 0.05, suggesting that any observed differences in means is likely due to random variation rather than actual ethnic group differences.

In terms of “Religious Affiliation”, it was categorised into five groups with varying frequency counts. The overall F-value was 0.007, and the p-value is 0.984. This means that there is no significant difference among the means of the religious affiliation groups. The p-value (0.984) is very high, indicating that any observed differences in means are likely due to chance rather than actual differences in religious affiliation.

In sum, the ANOVA results indicate that only groups in the field of study produced significant differences in the group means, suggesting that students from different fields of study have different mean scores. However, the rest of the other variables—Year of Study, Living Arrangements, Ethnic community and Religious Affiliation—produced non-significant outcomes among their respective categories. The likely reason for this outcome may have something to do with the size of the sample for specific groups within the predictor variable.

Too small a sample tends to progressively become less representative of the target population, consequently impacting the dependability of the outcomes. Additionally, it results in greater variability, which diminishes the study’s effectiveness by enlarging the margin of error, thereby rendering the study devoid of significance (Simmons, 2018). However, for a sample that is overly large, the difference in outcomes between the groups is always statistically significant (Andrade, 2020). For this current study, there were admittedly, extremely low numbers of respondents because of relying on proportionality representation and spreading

too widely across all schools in the university.

4.5 Evaluation of Facilitators to Help-seeking Behaviours.

The third objective of this study aimed to identify the most significant facilitators of help-seeking behaviours (HSB) among students in public universities. To achieve this, the study examined commonly reported facilitators such as positive past help-seeking experiences and attitudes, encouragement and support from social networks, and favourable perceptions of healthcare professionals to determine if they were correlated with HSB. The goal was to pinpoint and assess the facilitators with the greatest impact, given that a high prevalence of depression highlights the growing need for mental health services (MHS) to address emotional concerns.

Despite the availability of mental health services (MHS), most university students report low levels of help-seeking, especially from formal sources (Magaard et al., 2017; Roberts et al., 2018). Research suggests that the utilization of MHS is influenced by factors such as willingness to seek help, perceived health needs, and external conditions that either support or obstruct access to services. However, while barriers to help-seeking have been well-documented, there remains a gap in the literature focusing on the factors that encourage students to seek help.

Before running the correlations, data were checked to ensure it met statistical assumptions. A scatter plot was generated and used to check for outliers and linearity assumptions, because linear regressions are sensitive to outlier effects. To ensure that all variables are multivariate normal; a histogram with a normality curve was used to check the assumption. Finally, data were checked for homoscedasticity. Besides, items with missing data were checked and

pairwise elimination utilised. In sum, results for all tests indicated that the data met the assumptions for conducting statistical tests. A bivariate correlation analysis was used to create a matrix reported in Table 4.11.

Table 4.11
Bivariate Correlation Among Facilitators to HBS

Z	Zxx	1	2	3	4	5	6	7	8
HSB	Coefficient	1.000	-.050	-.049	.062	.019	-.033	.042	.018
	Sig. (2-tailed)	.	.235	.250	.142	.657	.432	.324	.674
	N		559	555	559	567	569	564	563
Positive prior experiences	Coefficient		1.000	.471**	.501**	.313**	.382**	.249**	.323**
	Sig. (2-tailed)		.	.000	.000	.000	.000	.000	.000
	N			550	551	538	540	538	535
Social support or positive encouragement from others,	Coefficient			1.000	.385**	.321**	.342**	.250**	.222**
	Sig. (2-tailed)			.	.000	.000	.000	.000	.000
	N				546	534	536	533	531
Confidentiality and trust issues in services	Coefficient				1.000	.346**	.360**	.276**	.287**
	Sig. (2-tailed)				.	.000	.000	.000	.000
	N					539	539	537	535
Positive relationship with service providers	Coefficient					1.000	.476**	.272**	.349**
	Sig. (2-tailed)					.	.000	.000	.000
	N						561	554	552
Good mental health literacy	Coefficient						1.000	.301**	.399**
	Sig. (2-tailed)						.	.000	.000
	N							556	556
Perceiving the problem as serious	Coefficient							1.000	.361**
	Sig. (2-tailed)							.	.000
	N								555
Emotional competence	Correlation								1.000

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

Source: *Derived from Survey data collected for this study*

Table 4.11 shows the results of the bivariate correlation analysis among seven items that might explain what might trigger a high rate of help-seeking behaviours. The correlations were

measured using Spearman's rho, and the table displays correlation coefficients and corresponding p-values (Sig. or significance) for each pair of variables. The number of cases (N) used for the correlation analysis is also shown in the table.

The correlation between HSB and positive prior experience is negative and very weak (-0.050). Moreover, the p-value (0.523) is not significant at any conventional level (e.g., 0.05 or 0.01). Therefore, there is no evidence of a significant relationship between HSB and positive prior experience. The correlation between HSB and social support from others is also negative and very weak (-0.049). Moreover, the p-value (0.250) is not significant, indicating that there is no strong evidence of a significant relationship between HSB and social support from others.

Also, the correlation between HSB and confidentiality and trust issues in services is still weak (0.062) though positive. However, the p-value (0.142) is not significant at the 0.05 level. Given that the correlation is close to the threshold, there might be a slight hint of a potential relationship. But, further investigation is needed to confirm its significance. Equally, the correlation between HSB and positive relationship with service providers, is once again weak (0.019), but positive. The p-value (0.675) is not significant, implying that there is no strong evidence of a significant relationship between HSB and positive relationship with service providers.

Further, correlation between HSB and good mental health is also weak and negative (-0.033). The p-value of 0.432 is not statistically significant at the 0.05 level. Therefore, there is no evidence of a significant relationship between HSB and positive prior experience. The correlation between HSB and perceiving the problem as serious is weak ($r = 0.042$) but positive. However, with a p-value of 0.324, the result is not statistically significant, indicating

a lack of strong evidence for a meaningful relationship between HSB and the perception of the problem's seriousness.

Finally, the correlation between HSB and emotional competence is also weak (0.018), but positive. The p-value (0.674) is not significant, implying that there is no strong evidence of a significant relationship between HSB and emotional competence.

These results suggest that the correlations between HSB and the other variables are generally weak and not statistically significant. This indicates that, based on the sample data, no strong linear relationships were found between HSB and the variables of interest. However, this should not be taken to imply that no relationship exists, but rather that no strong linear relationship is evident. The context of the research question should be considered when interpreting these findings, as non-linear relationships or other influencing factors may be present. Further investigation may provide more insight and clarity.

4.6 Determination of Significant Barriers to Help-seeking Behaviours.

The fourth and final objective of this study was to identify the most significant barriers to help-seeking behaviours among students in public universities. To achieve this goal, the study examined whether specific barriers—stigma, attitudinal, structural, and knowledge—were correlated with HSB, with the goal of identifying which barriers have the greatest impact on help-seeking behaviour. Despite being at high risk for developing depression, university students tend to show low rates of treatment uptake and often rely on coping strategies characterized by delay and avoidance. Therefore, by identifying barriers that have the greatest impact on preventing students from seeking help is crucial for developing strategies to improve

treatment uptake and enhance their overall functioning.

Additionally, understanding student experiences, including their satisfaction with mental health services (MHS), is key to improving access and utilization. Given the serious consequences of untreated depression—such as poor class attendance, lower academic performance, and course failure—previous research has explored various factors affecting help-seeking behaviour. This section summarizes the relationships and impacts of these barriers on HSB, and is divided into three parts: general settings, scale-level analysis, and the effect of the Theory of Planned Behaviour (TPB).

4.6.1 General Settings

Despite numerous barriers to help-seeking behaviours (HSB) having been identified, the key challenge remains in determining which factors most significantly affect HSB. It is not enough to only identify these obstacles; but it is crucial to understand their perceived impact on the behaviour itself—seeking help to alleviate distress—in order to effectively support university students in adjusting their lifestyles. This understanding is vital in addressing the discrepancy between the high prevalence of depression and the low rate of treatment access. Thus, further research into these barriers is necessary to inform the creation of strategies that enhance access to treatment and boost the use of mental health services (MHS). To investigate these factors, the study utilized the Theory of Planned Behaviour (TPB) to explore constructs associated with help-seeking behaviours. Five measurement scales were employed to evaluate the impact of barriers on HSB among university students in Kenya. These include: -

a) *Stigma related Barriers (SRBs)*

This is a 10-item scale used for assessing self-stigma—what respondents are embarrassed

about their behaviour. The scale-items were measured using a 5-point Likert like scale, anchored on a disagree/agree dichotomy with a neutral score (Not Sure). Higher scores indicate greater agreement while less scores indicate disagreement. The scale runs from a minimum of 10 to a maximum of 50.

b) *Attitudinal Barriers (Abs).*

The Abs was a 10-item scale too used for assessing the respondent's outlook in seeking professional treatment for depression—i.e., what respondents think about depression treatment. The items were measured using a 5-point Likert scale, on disagree/agree dichotomy with a neutral score (Not Sure). The scale runs from a minimum of 10 to a maximum of 50.

c) *Structural Barriers (SBs).*

The SBs was a 7-item scale used for assessing the difficulties of affording medication services. Such services include, transport and cost of treatment, professional fees, and time to attend hospital, and affordability of care givers. The items were measured using a 5-point Likert scale, on disagree/agree dichotomy with a neutral score (Not Sure). The scale runs from a minimum of 7 to a maximum of 35.

d) *Knowledge Barriers (KBs).*

The KBs scale is a 10-item scale used for assessing knowledge barriers—i.e., lack of knowledge that the respondent is embarrassed about in being able to make independent decisions. The items were measured using a 5-point Likert scale, on disagree/agree dichotomy with a neutral score (Not Sure). The scale runs from a minimum of 10 to a maximum of 50.

e) *Perceived Behavioural Control (PBC).*

This was a 10-item scale used for assessing perceived behavioural control—i.e., the perceived

ease or difficulty of performing a behaviour that respondents get embarrassed about. The items were measured using a 5-point Likert scale, arranged on the disagree/agree dichotomy with a neutral score (Not Sure). The scale runs from a minimum of 10 to a maximum of 50. Higher scores point to greater agreement and therefore constitute higher effect while less scores point to disagreement, implying less effect. All scales used demonstrated good internal consistency, ranging between $\alpha = .71$ and $.93$.

4.6.2 Scale Level Analysis

University students struggle with many barriers that prevent them from seeking help for their emotional problems. Only respondents who answered the question “Have you sought help for an emotional problem during the past six months?” qualified for inclusion in the analysis. According to the results of a frequency count, only 593 (66.2%) out of 896 respondents answered the question. Consequently, to determine the significant barriers that bring about a large effect size on HSB, the study performed Spearman’s rank correlation—normally used to find out the strength and direction of a relationship between two data variables. Each item on the scale was scored using a five-point Likert like scale, rated between one (1) and five (5) and summed up linearly. The minimum and maximum score obtained depends on the number of items per scale.

Before conducting the correlations, the data was thoroughly examined to ensure it met the fundamental assumptions required for statistical analysis. This process involved verifying that there were no violations of key assumptions, such as the linearity of relationships and homoscedasticity, which are essential for accurate correlation testing. As a crucial step in correlation analysis, it is essential to ensure that the assumptions are not violated. Accordingly,

the study generated a scatter plot and checked for outliers, recognizing that linear regression is particularly sensitive to the influence of outliers.

Secondly, the linear regression analysis requires that all variables be multivariate normal. A histogram with a normality curve was used to check this assumption. For cases with missing data, pairwise elimination was used. The results indicated that the data did not violate the assumptions for conducting correlation analysis test. Consequently, inter-correlations amongst the study variables (i.e., SRBs, Abs, SBs and KBs) were conducted to determine both the strength and direction of the association between barriers and HSB. A bivariate correlation analysis was used to create a matrix as displayed on Table 4.12.

Table 4.12

Bivariate correlation Among Barriers of Interest

			1	2	3	4	5
1.	HSB	Correlation Coefficient					
		Sig. (2-tailed)					
		N	593				
2.	SRBs	Correlation Coefficient	.008				
		Sig. (2-tailed)	.852				
		N	593	593			
3.	Abs	Correlation Coefficient	.027	.493**			
		Sig. (2-tailed)	.518	.000			
		N	593	593	593		
4.	SBs	Correlation Coefficient	.062	.462**	.543**		
		Sig. (2-tailed)	.130	.000	.000		
		N	593	593	593	593	
5.	KBs	Correlation Coefficient	.025	.504**	.498**	.603**	
		Sig. (2-tailed)	.547	.000	.000	.000	
		N	593	593	593	593	593

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

Note: HSB – Help-seeking Behaviour; SRBs – Stigma Related Barriers; Abs – Attitudinal Barriers; SBs – Structural Barriers; KBs – Knowledge Barriers.

Source: *Derived from Survey data collected for this study*

Table 4.12 shows the results of the bivariate correlation analysis among five variables of interest. The correlations were measured using Spearman's rho, and the table displays correlation coefficients and corresponding p-values (Sig. or significance) for each pair of the variables. The number of cases (N) used for the correlation analysis is also shown in the Table.

The correlation between HSB and SRBs is very weak (0.008). Moreover, the p-value (0.852) is not significant at any conventional level (i.e., 0.05 or 0.01). Therefore, based on this analysis

there is no evidence of a significant relationship between HSB and SRBs. The correlation between HSB and Abs is also weak (0.027). The p-value (0.518) is not significant, indicating that there is no strong evidence of a significant relationship between HSB and Abs. The correlation between HSB and SBs is still relatively weak (0.062). Whereas, the p-value (0.130) is not significant at the 0.05 level. It is, however; close enough to the threshold, indicating there being a likelihood of a potential relationship between HSB and SBs. For this reason, further investigations are needed to confirm its significance.

The correlation between HSB and KBs is once again weak (0.025), and the p-value (0.547) is not significant. Therefore, no strong evidence exists to conclude that a significant relationship exists between HSB and KBs. From these results, it appears that the correlations between HSB and the other variables (SRBs, Abs, SBs, and KBs) are generally weak and not statistically significant. This means that based on the sample data, there is no strong linear relationship between HSB and the other variables. This may be due to the context and the research question. It is possible that there might be non-linear relationships or other factors (i.e., not investigated) influencing the association of variables.

Additionally, a multiple logistic regression model was used to identify the strongest predictors of students' likelihood to seek help for depression. The model was applied to determine the relationship between the dependent variable (help-seeking behaviour) and a set of independent barriers (SRBs, Abs, and KBs), with the final model's chi-square value indicating statistical significance. Table 4.13 displays the result of the regression.

Table 4.13.

Model fitting information

Model	Model Fitting		Likelihood Ratio Tests	
	Criteria			
	-2 log likelihood	Chi-Square	df	Sig
Intercept Only	771.613			
Final	503.082	262.506	1418	.000

Source: *Derived from Survey data collected for this study*

Table 4.13 reveals that the probability of the model Chi-square (262.506) was 0.00 less than the significance level of 0.05. Therefore, there exists evidence of a relationship between the independent variable and the dependent variable at 5% level of significance. Overall, there is a statistically significant relationship between the level HSB and barriers (i.e. SRBs, Abs, SBs and KBs) to help-seeking.

Additionally, the data was examined for goodness-of-fit, a statistical test used to assess how well the sample data aligns with a normally distributed population. Put simply, it hypothesises whether a sample is skewed or represents the data you would expect to find in the actual population. Goodness-of-fit measures the difference between the observed values and those predicted by the model within a normally distributed population. There are various methods available to assess goodness-of-fit, including the chi-square, which is the most common, as well as the Kolmogorov-Smirnov test, and the Shapiro-Wilk test.

Goodness-of-fit tests are statistical methods that make inferences about observed values. For instance, you can determine the representativeness of a sample group for the entire population. As such, they determine how actual values are related to the predicted values in a model. When

used in decision-making, goodness-of-fit tests make it easier to predict trends and patterns in the future. Table 4.14 displays the results of a goodness-of-fit test using the chi-square test.

Table 4.14

Likelihood Ratio Tests

Effect	Model-Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	508.933 ^a	.000	0	.
SRBs	613.415	104.482	45	.000
Abs	575.155	66.222	41	.008
SBs	555.162	46.230	31	.039
KBs	580.845	71.913	24	.000

Note: HSB – Help-seeking Behaviour; SRBs – Stigma Related Barriers; Abs – Attitudinal Barriers; SBs – Structural Barriers; KBs – Knowledge Barriers.

Source: *Derived from Survey data collected for this study*

Table 4.14 shows that the chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. Intercept Effect: The “-2 Log Likelihood” of the reduced model (with only the intercept) is 508.933. The “Chi-Square” value for the likelihood ratio test is not specified (denoted as “a”). However, it is evident that the test is highly significant as the “Sig.” (p-value) is listed as “.000,” indicating a very low p-value. The degrees of freedom (df) for the likelihood ratio test in the intercept effect are 0. The intercept effect represents the model’s baseline, which essentially is the model with no predictor variables. The significant p-value ($p < .001$) suggests that the model with the intercept only is not a good fit for the data, and there is a need to include predictor variables in the model.

SRBs (Effect of a Predictor Variable): The “-2 Log Likelihood” of the reduced model (with only the intercept) is 613.415. The “Chi-Square” value for the likelihood ratio test is 104.482. The degrees of freedom (df) for the likelihood ratio test in the SRBs effect are 45. The “Sig.” (p-value) is listed as “.000,” indicating a highly significant result ($p < .001$). The SRBs effect represents the model’s performance when considering the predictor variable “SRBs”. The significant chi-square value and the very low p-value suggest that the inclusion of the “SRBs” predictor significantly improves the model’s fit compared to the intercept-only model.

The “-2 Log Likelihood” of the reduced model (with only the intercept) is 575.155. The “Chi-Square” value for the likelihood ratio test is 66.222. The degrees of freedom (df) for the likelihood ratio test in the Abs effect are 41. The “Sig.” (p-value) is listed as “.008,” indicating a significant result ($p < .01$). The Abs effect represents the model’s performance when considering the predictor variable “Abs” (Attitudinal barriers). The chi-square value is significant, and the p-value suggests that the inclusion of the “Abs” predictor improves the model’s fit compared to the intercept-only model, although the significance is not as strong as in the SRBs effect.

The result shows that the “-2 Log Likelihood” of the reduced model (with intercept only) is 555.162 while the “Chi-Square” value for the likelihood ratio test is 46.230. The degrees of freedom (df) for the likelihood ratio test in the SBs effect are 31 and the “Sig.” (p-value) is listed as “.039”. This indicates a marginally significant result ($p < .05$); suggesting that the inclusion of the “SBs” predictor improves the model’s fit compared to the intercept-only model. But, the significance is weaker than in the previous effects.

The “-2 Log Likelihood” of the reduced model (with only the intercept) is 580.845. The “Chi-Square” value for the likelihood ratio test is 71.913. The degrees of freedom (df) for the likelihood ratio test in the KBs effect are 24. The “Sig.” (p-value) is listed as “.000,” indicating a highly significant result ($p < .001$). The KBs effect represents the model’s performance when considering the predictor variable “KBs”. The chi-square value is highly significant, indicating that the inclusion of the “KBs” predictor significantly improves the model’s fit compared to the intercept-only model.

Generally, the findings indicate that all the predictor variables (SRBs, Abs, SBs, and KBs) contribute significantly to improving the model’s fit. This is because their inclusion significantly enhances the model's ability to explain variability in the dependent variable or outcome under investigation. Researchers should consider these results when interpreting the model and its implications for the data under investigation. Additionally, the specific context and meaning of the predictor variables (SRBs, Abs, SBs, and KBs) is essential in understanding their impact on the dependent variable.

Examining residuals is a primary approach for identifying the overall discrepancies between models and data, and observations that are not accommodated by the models (e.g., outliers). Residual analyses can also diagnose the overall goodness-of-fit (GOF) and adequacies of a model. Pearson and deviance residuals have often been used for diagnosing generalised linear models. Pearson residuals are defined as the standardised distances between the observed and expected responses, and deviance residuals are defined as the signed square root of the individual contributions to the model deviance. In normal regressions, Pearson and deviance residuals are the same and asymptotically follow a normal distribution under the true model.

In order to assess the model fit, these residuals are commonly plotted against the fitted values and each covariate, as well as compared against the standard normal distribution. The chi-squared (χ^2) test statistic is often used to measure the overall goodness of fit (GOF) of a normal regression model. The χ^2 statistic has proven to have an asymptotic χ^2 distribution with $n-p$ degrees of freedom. However, in cases of non-normal regression, particularly when the response variable is distributed across a limited range of distinct values, Pearson and Deviance residuals often do not conform to a normal distribution. Therefore, Pearson and Deviance residuals were used to assess the goodness-of-fit (GOF) for the model. Table 4.15 displays the results of the analysis.

Table 4.15
Goodness-of-fit

	Chi-Square	df	Sig.
Pearson	511.158	379	.000
Deviance	503.082	379	.000

Source: *Derived from Survey data collected for this study*

The Pearson and the Deviance were used to test whether the data adequately fits the model given a significance level of 5%. Since the significance level from Chi-Square computation is higher than the level of significance, then it implies that the data adequately fits the model. Therefore, the data are consistent with the model assumptions which postulates that “the data adequately fits the model” compared against the alternative stating “the data does not adequately fit the model”.

4.6.3 Effects of the TPB Concept

Hierarchical multiple regression analysis was used to predict the effect of the TPB concepts on help-seeking intentions, and the effect of adding other predictors such as depression and mental health literacy level. The first regression step used four barriers: SRBs, Abs, SBs and KBs. The second step tested the effect of adding depression level, and finally, depression literacy level was added, so that the third regression step included five predictors. The study utilized SPSS version 25.0 for data analysis. Descriptive statistics are some of the automatic outputs when performing correlations. For all the variables, their mean score, standard deviation and the number of cases are reported. Table 4.16 displays the samples' descriptive statistics.

Table 4.16

Descriptive Statistics

	HSB	SRBs	Abs	SBs	KBs
Frequency (N)	593	593	593	593	593
Minimum	1	0	0	0	0
Maximum	2	50	49	35	25
Mean	1.62	26.67	26.55	18.61	13.27
Mode	2	29	30	21	15
Std. Deviation	.485	9.817	8.483	7.035	5.190
Variance	.235	96.375	71.954	49.492	26.934
Skewness	-.506	-.383	-.860	-.328	-.464
Std. Error of Skewness	.100	.100	.100	.100	.100
Kurtosis	-1.750	.424	1.819	.504	.122
Std. Error of Kurtosis	.200	.200	.200	.200	.200

Source: *Derived from Survey data collected for this study*

Table 4.16 depicts that the sample consisted of 593 respondents. Except for HSB which had a minimum of 1; the rest had zero (0) as the minimum. The maximum for all scales ranged from two (2) for HSB to 50 for SRBs. The mean for these data sets ranged from 1.62 to 26.67 and the range for the mode was between 2 to 30. An examination of kurtosis showed that Abs had the highest value (-.860) a high number of respondents may have rated themselves highly on the attitudinal scale. The scale had zero (0) as the minimum score while the maximum score was 49. Considering that two scales (HSB and Abs) had a measure of 0.5 for kurtosis, it implies that there may have been many outliers in the two scales. As a result, the two scales have a high probability of distorting the analysis. In conclusion therefore, although the data can be used for analysis, care must be exercised when interpreting the results.

4.7 Conclusion

Based on the findings of this study involving 896 respondents, a significant prevalence of depression was observed, with nearly half (48.8%) of the respondents testing positive. The prevalence varied across social and demographic factors, showing higher rates of depression among males compared to females, and among married individuals compared to singles. Interestingly, first-year students reported higher levels of depression than those in their second and third years of study, indicating potential vulnerability during the early stages of academic life.

The study also explored help-seeking behaviour among the respondents, with 593 individuals providing data for the question. The findings revealed that fewer sought help than those who did not, with a notable gender difference. More males sought help compared to females. This result contradicts prior research, which typically have found that females are more likely to

seek help than males. While this finding challenges existing literature, the differences were not statistically significant, suggesting that other factors may be influencing help-seeking behaviour in this sample.

Overall, the study reinforces existing knowledge about the prevalence of depression and its association with various demographic factors. However, it also highlights areas where this particular sample deviates from established trends, particularly in terms of help-seeking behaviour. The absence of a linear relationship between the variables studied suggests that depression and help-seeking behaviours are influenced by complex, multifaceted factors that warrant further investigation.

CHAPTER FIVE:

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings of a study conducted among students at a large public university in Kenya. The research sought to understand why university students are the least likely to seek help for emotional challenges. To address this, the study assessed the prevalence of depression, analysed disparities in help-seeking behaviour, identified perceived facilitators to mental health treatment, and highlighted significant barriers to help-seeking behaviour. This chapter, therefore, presents a concise overview of the study's findings, conclusions, and recommendations for policy changes and future research, with each section addressing key aspects of the study's objectives.

5.2 Summary of the Study Findings

This section summarizes the key findings of the study, which involved 896 students from the first, second, and third years of their studies. The study was conducted at the main campus of Kisii University, located about 310 Kms from Nairobi, Kenya's capital city. The study sought to investigate why university students are among the least likely to seek help for their emotional challenges. The research specifically focused on assessing the prevalence of depression, analysing disparities in help-seeking behaviours, identifying factors that motivate students to seek mental health support, and uncovering the barriers that prevent them from doing so. The findings from this study offer valuable insights into these critical areas. The study revealed that

5.2.1 Prevalence of depression

The study found that almost half of the surveyed university students (437 out of 896, or 48.8%) showed signs of depression. Among them, 211 (23.5%) students exhibited mild symptoms, 116 (18.0%) showed moderate symptoms, and 65 (7.3%) were diagnosed with severe depression. These results point to a significant issue, suggesting that nearly one in two students may be struggling with depression, emphasizing the urgent need for improved mental health support within universities.

The study further found that the prevalence of depression varies based on the social and demographic factors of respondents. For example, depression is more prevalent among female students (51.1%) compared to their male counterparts (46.7%). Interestingly, the study noted that a larger proportion of female students were in marital relationships compared to male students, further influencing these findings. Likewise, age plays a role, with students aged 22–25 years showing a slightly higher prevalence (49.0%) than those aged 18–21 years (48.7%). Additionally, students in marital relationships reported a higher rate of depression (50%) compared to those who were single (48.7%).

The study further revealed that students' living arrangements and year of study had a notable impact on depression rates. Depression was more common among those living off-campus with fellow students (49.2%) compared to those in residence halls (47.4%) or those living off-campus with family (45.1%). Additionally, first-year students showed the highest rate of depression at 51.3%, while second-year students had the lowest rate at 43.6%, and third-year students experienced a rate of 50.9%. These findings highlight the impact of both living conditions and academic year of study on students' mental health.

The study revealed further that the prevalence of depression varies across academic disciplines and religious affiliations. Students from the field of Agriculture had the highest rate of depression (68.3%), followed by those in Pure and Applied Sciences (54.3%) and Arts and Social Sciences (52.3%). Regarding religious affiliation, depression was most common among respondents affiliated with the Catholic faith (51.6%), compared to those affiliated with Protestantism (44.6%) and Islam (42.1%). Interestingly, the lowest prevalence of depression was observed among respondents affiliated with the Seventh-day Adventist (SDA) faith (30.0%).

5.2.2 Disparities in Help-seeking Behaviour

The second objective of this study was to explore the social and demographic factors that contribute to improved help-seeking behaviours among university students. This is because untreated depression can interfere with daily functioning, and the willingness to seek help, particularly for mental health issues. On the other hand, reluctance to seek help, can reduce survival chances. The study found that being male, being aged between 22-25 years, being in a marital relationship, based on year of study, living on-campus in Halls of residence; being in pure and applied Sciences, being affiliated to the Muslim faith is likely to increase help-seeking behaviours.

Additionally, the study found that help-seeking behaviours among students varied by gender, age, and marital status. Male students were slightly more likely to seek help (38.3%) compared to female students (37.3%). Age also influenced help-seeking, with students in the older age set (Co2) being more likely to seek help (40.8%) than those in the younger age set (Co1) at 36.2%. Additionally, marital status played a role, with married students showing a higher

likelihood of seeking help (50%) compared to single students (37.5%).

Moreover, the study revealed that help-seeking behaviours among students varied based on marital status, year of study, living arrangements, and academic discipline. For instance, married students were more likely to seek help (50%) compared to single students (37.5%). Furthermore, second-year students (SY) were most likely to seek help at 42.4%, followed by third-year (TY) students at 37.3% and first-year (FY) students at 34.4%. Living arrangements also played a role, with students living off-campus with family (OCWF) or in halls of residence (OCHR) being more likely to seek help at 40.4% compared to those living off-campus with fellow students (OCWFS) at 33.1%. Plus, students from the School of Pure & Applied Sciences were the most likely to seek help at 51% compared to students from other academic disciplines.

The study found that help-seeking behaviours vary across ethnic and religious groups. For example, Luhya students were the most likely to seek help at 37.5% compared to those from other ethnic backgrounds. In terms of religious affiliation, Muslim students were more likely to seek help at 41.7% than students affiliated with other faiths. These findings highlight the influence of cultural and religious factors on students' willingness to seek assistance.

Lastly, the study found that while there were some differences in help-seeking behaviours among various groups, these differences were not statistically significant. For instance, despite females having a slightly higher mean score for help-seeking behaviours, the difference between males and females was not significant. Similarly, respondents in the older age group (Co2) had marginally higher mean scores, but this difference was also not statistically significant. Moreover, no significant difference in help-seeking behaviour exists between

married and single students, suggesting that marital status may not have had a major impact on the likelihood of seeking help.

Further, the analysis revealed significant differences in help-seeking behaviours based on students' fields of study, indicating that students from different academic disciplines have varying average scores in this regard. However, for other variables such as "Year of Study," "Living Arrangement," "Ethnic Community," and "Religious Affiliation," no significant differences were found in the mean scores among their respective categories. This suggests that while academic discipline plays a role in influencing help-seeking behaviour, factors such as year of study, living conditions, ethnicity, and religious affiliation do not have a significant impact.

5.2.3 Evaluation of Facilitators

The third objective of this study was to identify key factors that significantly promote help-seeking behaviours among university students. The focus was on determining what drives students to seek help for depression, especially given the generally low rates of mental health service utilization due to reluctance to seek formal support. The study explored commonly cited facilitators, such as previous positive experiences with help-seeking, encouragement or support from social networks, and favourable perceptions of healthcare professionals, to assess whether these factors were correlated with help-seeking behaviour and had a significant influence.

The high prevalence of depression highlights an increasing demand for mental health services (MHS) to address the rising emotional challenges faced by students. This is particularly important as most university students report low rates of help-seeking behaviour, especially

from formal sources. Studies have shown that the utilization of MHS is shaped by factors such as the predisposition to seek help, perceived health needs, and other structural or enabling influences.

The study found that the correlations between help-seeking behaviour (HSB) and all factors (i.e., positive prior experience; social support or positive encouragement from others; confidential and trust issues in services; good mental health literacy; perceiving the problem as serious; and, emotional competency) explored were generally weak and statistically insignificant. This finding suggests that based on the sample data, there is no strong linear relationship between HSB and other variables. However, this does not imply that no relationship exists; rather, it points to the absence of a strong linear correlation.

5.2.4 Determination of Significant Barriers

To determine, significant barriers preventing help-seeking behaviour, this study analysed the perceived impact of stigma related barriers, attitudinal barriers, structural barriers, knowledge barriers, and perceived behaviour control. The scores were correlated to the scores of Help Seeking Behaviours. This present study revealed that knowledge, structural and stigma related barriers had the greatest effect size on HSB. All were significant at $P < 0.01$. This implies that these barriers were the most significant in preventing university students from seeking help. Consequently, to assist university students to effectively overcome barriers to help-seeking behaviours, strategies must be formulated to tackle these barriers.

The analysis revealed that the correlation between HSB and SRB was very weak. Likewise, the correlations between HSB and ABs, SBs, and KBs were generally weak and not statistically significant. This indicates that the relationship between HSB and the variables

under study is not linear. The results point to the possibility of a non-linear relationship or the existence of some unexamined factors that might be influencing the association of these variables.

Since the model Chi-square value (262.506) was significantly lower than the 0.05 significance level, there is sufficient evidence to demonstrate a statistically significant relationship between the independent and dependent variables. The findings also suggest that all predictor variables (SRB, ABs, SBs, and KBs) contribute significantly to the model's fit. This is because, the model's accuracy improves notably when these predictors are included. This highlights their importance in explaining the variability.

Using the Pearson and Deviance tests, the study assessed the goodness of fit and found that the data adequately fitted the model at a 5% significance level. Since the p-value from the Chi-Square test was greater than the significance level, it indicates that the data fit the model well. This result supports the null hypothesis, which states that "the data adequately fit the model," against the alternative hypothesis that "the data do not adequately fit the model".

This present study involving 593 respondents, revealed that most variables had a minimum value of zero, the scales ranged from a minimum of 1 for HSB to a maximum of 50 for SRBs, with means between 1.62 and 26.67 and modes from 2 to 30. Respondents identified three primary sources of help—formal, informal, and online—with intended use rates of 27%, 32%, and 25%, respectively. However, actual help-seeking behaviour differed, with 57.1% of respondents consulting informal sources and 42.9% turning to formal sources, reflecting trends observed in previous studies by Magaard et al. (2017) and Roberts et al. (2018).

5.3 Conclusions

This study produced several key findings, leading to important conclusions regarding its objectives. The first objective was to assess the prevalence of depression among university students. The results show that there is generally a high prevalence of depression (48.8%) were observed. In terms of gender, depression is more common among female students (51.1%) compared to male students (46.7%); with females experiencing depression nearly twice as often as males. This higher prevalence among females may be attributed to socio-economic challenges, including the responsibilities some face as mothers while in college. Additionally, when experiencing depression, females are more likely to seek help than their male counterparts.

Based on age demographic, 289 (48.7%) students aged between 18-21 years screened positive compared to 305 (51.3%) students of the same age that screened negative. The study concludes that on religion, depression is more common among respondents affiliated to the catholic faith (51.6%); followed by those affiliated to protestant faith (44.6%) and the Muslims faith (42.1%) and it is least common among respondents affiliated to the SDA faith (30.0%).

To examine disparities in help-seeking behaviours among university students, the study arrived at the conclusion that there are statistically significant differences between students in a marital relationship (50%) compared to single (37.5%) students. In addition, and based on year of study, this present study found that there were disparities in help-seeking behaviours between second year (42.4%) compared to first year (34.4%) students. Finally, in terms of field of study, the study found that students from pure and applied sciences (51%) were more likely to seek help compared to (25%) of the students from the field of health sciences.

In conclusion, help seeking is an important behaviour because untreated depression makes it difficult for one to navigate life settings well. Significant disparities in help seeking behaviours were observed among married students (50%) unlike the single at (37.5%); followed by year of study where 25.9% of the students in the SHS, 28% in Agriculture and 33.1% in Education were found to have the lowest help seeking behaviour compared to SPAS (51%), SOBE (45.8%) and SIST (45.3%) that had the highest help seeking behaviours.; on religious affiliations, students affiliated to Muslim religion (41.7%) while others averaged at (38%). When all the socio demographic variables are observed in wholesome, living arrangements (0.984), religious affiliation (0.984) and gender (0.676) pose the greatest effect on HSB on depression. This study concluded that knowledge, structural and stigma related barriers were significant in depressing the HSB among university students. Consequently, it is necessary to formulate strategies that can help counter the barriers university students are likely to face. The findings indicated that depression affects first years and third years more than second year university students.

5.4 Recommendations

Based on the research findings, the researcher suggests that future studies should prioritize strategies to encourage help-seeking as a means of addressing depression. This could offer valuable insights for policymakers and open new avenues for further research. To provide well-rounded recommendations, this section is organized into three parts: policy recommendations, suggestions for future research, and a discussion of limitations

5.4.1 Policy Recommendations

The study sought to assess the prevalence of depression, examine socio-demographic disparities in help-seeking behaviours, evaluate facilitators to help-seeking behaviours and

determine significant barriers to help-seeking behaviours. Based on the findings, the following recommendations were made:

- i) The results revealed that 437 (48.8%) out of 896 total respondents screened positive for depression of whom 211 (23.5%); 116 (18.0%); 65 (7.3) screened mild, moderate and severe respectively. This prevalence being so high requires that the concerned offices in the university consider carrying out deliberate awareness campaigns and create advocacy strategies to deal with high cases of depression.
- ii) University students should be encouraged to go for screening for depression and those that test positive for depression should be diagnosed for causes and importantly encouraged to undertake treatment.
- iii) Since a substantial proportion of undergraduates reported high levels of depression, there is need to create awareness among students by utilising deliberate measures to deal with the high levels of depression.
- iv) Considering that depression affects both men and women adversely, mental health professionals need to demystify depression so as to remove the stigma that is associated with it.
- v) Counselling and preventive mental health services should be made an essential part of the university set-up so as to deal with the ever-rising cases.
- vi) Given that, knowledge barriers were found to be having the greatest effect to help seeking for depression, it is important that policy and decision makers come up with policies to be embedded in academic programmes so as to cushion the learners.
- vii) The ministries of education, Health, social services and other relevant bodies start working together to source and train mental health experts who will offer services in academic institutions to alleviate the high prevalence of depression.
- viii) The finding that some ethnic communities seek help better than others is important as it can be used by the students' handlers in supporting their mental well-being.

5.4.2 Recommendations for Further Research

Based on the findings of the study, the following suggestions were made for further research:

i). Further research is required to be carried out in all universities in Kenya to assess the prevalence of depression as these findings of this study may not be generalised to all undergraduate students in Kenyan universities since the results apply more specifically to Kisii university students.

ii) The study employed mainly quantitative research methodologies and qualitative approaches for triangulation of sources of data. To establish the factors that cause depression and interventions, there is need to carry studies that mainly utilise qualitative designs as they answer the how and why questions.

iii) The study used questionnaires to collect data to investigate why university students remain the least likely to seek help for emotional problems. There is need for further research on the same area using other methods of data collection such as interview schedules, observations, content analysis, and to establish if similar results can be obtained. This would help triangulate the results.

iv) Given that the study focussed on university students and depression; further research needs to be conducted among other demographic populations in Kenya. In addition, research in this area could use different variables such as academic performance or academic efficacy to see whether similar results would be obtained.

v) The current study aimed to determine significant barriers to help-seeking behaviours among students in public universities. Further studies should be conducted by using different cohorts in primary, colleges and even a number of universities to find out the interactions of the findings.

vi). Researchers should consider these results when interpreting the model and its implications for the data under investigation.

vii). Additionally, the specific context and meaning of the predictor variables (SRB, ABs, SBs, and KBs) would be essential in understanding their impact on the dependent variable.

REFERENCES

- Abubakabakar, A., Kalu, R. B., Katana, K., Kabunda, B., Hassan, A. S., Newton, C. R., Van de Vijver, F. (2016). Adaptation and latent structure of the Swahili version of beck depression inventory-II in a low literacy population in the context of HIV. *PloS one*, *11*(6), e0151030.
- Aggarwal, R. & Ranganathan, P. (2019). Study designs: Part 2 – Descriptive studies. *Perspectives in Clinical Research*, *10* (1), 34-36
- Aguwa, C., Carrasco, T., Odongo, N. & Riblet, N. (2023). Barriers to Treatment as a Hindrance to Health and Wellbeing of Individuals with Mental Illnesses in Africa: A Systematic Review. *International Journal of Mental Health and Addiction*.
- Ahmed, G., Negash, A., Kerebih, H. Alemu, D., & Tesfaye, Y. (2020). Prevalence and associated factors of depression among Jimma University students. A cross-sectional study. *International Journal of Mental Health Systems*, *14*, 52
- Aithal, A. & Aithal, P. S., (2020). Development and Validation of Survey Questionnaire & Experimental Data – A Systematical Review-based Statistical Approach. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, *5*(2), 233-251.
- Ajzen, I. (2020). The theory of planned behaviour: Frequently asked questions. *Journal of Human Behaviour and Emerging technologies*, *2*(4), 314-324
- Ajzen, I. (2002). Perceived behavioural control, self-efficacy, locus of control, and the theory of planned behaviour. *Journal of Applied Social Psychology*, *32*(4), 665–683
- Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. In J. Kuhi & J. Beckmann (Eds.), *Action—control: From cognition to behaviour* (pp. 11—39). Heidelberg: Springer
- Akhtar, P., Ma, L., Waqas, A., Naveed, S., Li, Y., Rahman, A., & Wang, Y. (2020). Prevalence of depression among university students in low and middle income countries (LMICs): a systematic review and meta-analysis. *Journal of Affective Disorders*, *274*, 911-919

- Alanazi, N.H., Lee, J.W., Dos Santos, H., Job, J. S., & Bahjri, K., (2017). The use of planned behaviour theory in predicting cigarette smoking among Water pipe smokers. *Tobacco. Induced Diseases*, 15, 29
- Alhamad, H., & Donyai, P. (2021). The Validity of the TPB for Understanding People's Beliefs and Intentions towards Reusing Medicines. *Pharmacy (Basel, Switzerland)*, 9(1), 58.
- Allen, M., (2017). The SAGE Encyclopaedia of Communication Research Methods. Doi: <http://dx.doi.org/10.4135/9781483381411.n565>
- Alonso, J., Liu, Z., Evans-Lacko, S., Sadikova, E., Sampson, N., Chatterji, S., Abdulmalik, J., Aguilar-Gaxiola, S., Al-Hamzawi, A., Andrade, L. H., Bruffaerts, R., Cardoso, G., Cia, A., Florescu, S., de Girolamo, G., Gureje, O., Haro, J. M., He, Y., de Jonge, P., Karam, E. G., (2018). Treatment gap for anxiety disorders is global: Results of the World Mental Health Surveys in 21 countries. *Depress Anxiety*, 35(3), 195-208
- Anand, M. (2020). *Gender and Mental health: Combining theory and Practice*. Springer Nature, Singapore
- Andoh-Arthur, J., Oppong Asante, K., & Osafo, J. (2015). Determinants of psychological help-seeking intentions of university students in Ghana. *International Journal for the Advancement of Counselling*, 37(4), 330–345
- Andrade, C. (2020). Sample Size and its Importance in Research. *Indian journal of psychological medicine*, 42(1), 102–103.
- Anyayo, L. G., Kabunga, A., Okalo, P. Apili, B., & Nalwonga, V., (2022). Prevalence of and institutional factors associated with depression among undergraduate students at Gulu University. *Insights on the Depress and Anxiety*, 6, 001-006.
- APA, (2019). Depression Assessment Instruments. Available online: <https://www.apa.org/depression-guideline/assessment>

- APA, (2022). What is Depression? Available online: <https://www.psychiatry.org/patients-families/depression/what-is-depression>
- Argyropoulos K, Giourou E, Dimopoulou M, Argyropoulou A, Gourzis P. (2017). Anxiety and depression among Greek undergraduate students at the University of Patras. *Global Journal of Medicine and PUBLIC Health Anxiety*, 6(5)
- Ashida, S., Sewell, D., Schafer, E., Schroer, A., & Friberg, J. (2019). Social network members who engage in activities with older adults: Do they bring more social benefits than other members? *Ageing and Society*, 39(5), 1050-1069
- Auerbach et al., (2018). World Health Organization World Mental Health Surveys International College Student Project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology*, 127(7), 623-638
- Awan, A. B. I. (2019). Relationship between the demographic variables and prevalence of depression among the university students. *Biomedical Journal of Scientific & Technical Research*, 17(4), 12959-12961.
- Babajide, A., Ortin, A., Wei, C., Mufson, L., & Duarte, C. S. (2020). Transition Cliffs for Young Adults with Anxiety and Depression: Is Integrated Mental Health Care a Solution? *The journal of behavioural health services & research*, 47(2), 275–292.
- Baker, E. F. (2017). Autonomy and Informed Consent. A Dissertation submitted to the Graduate College of Bowling Green State University
- Bakhtyari, M. B., Mutamed, M., & Bena, A., (2020). Prevalence of depression among Afghan university students. *International Research Journal of Social Sciences*, 7(1), 16–21
- Barman, L., Mukhopadhyay, D. K., & Bandyopadhyay, G. K., (2018). Use of social networking site and mental disorders among medical students in Kolkata, West Bengal. *Indian Journal of Psychiatry*, 60(3), 340-345

- Barnes, K. A., (2019). A Meta-Synthesis of Adolescent Psychological Help-Seeking. A Phd dissertation submitted to Walden University.
- Bartle, N. C., & Harvey, K., (2017). Explaining infant feeding: The role of previous personal and vicarious experience on attitudes, subjective norms, self-efficacy, and breastfeeding outcomes. *The British Journal of Health Psychology*, 22(4), 763-785
- Bashir, M. B. A., Mohamed, S. O. A., Nkfusai, C. N., Bede, F., Oladimeji, O., Tsoka-Gwegweni, J. M., & Cumber, S. N. (2020). Assessment of minor psychiatric morbidity, stressors, and barriers of seeking help among medical students at the University of Khartoum, Khartoum, Sudan. *The Pan African medical journal*, 35, 87.
- Bernaras, E., Jaureguizar, J., & Garaigordobil, M. (2019). Child and Adolescent Depression: A Review of Theories, Evaluation Instruments, Prevention Programs, and Treatments. *Frontiers in psychology*, 10, 543
- Biftu, B. B., Takele, W. W., Guracho, Y. D., & Yehualashet, F. A. (2018). Depression and its help seeking behaviors: A systematic review and meta-analysis of community survey in Ethiopia. *Depression Research and Treatment*, Article 1592596.
- Bikwetti, D. A., (2021). Perceived barriers and facilitators of mental health treatment-seeking among university students in Nairobi county. A Thesis Submitted to United States International University –Africa
- Bitter, C. C., Ngabirano, A. A., Simon, E. L., & Taylor, D. M. (2020). Principles of research ethics: A research primer for low- and middle-income countries. *African journal of emergency medicine: Revue africaine de la medecine d'urgence*, 10(S2), S125–S129.
- Bretschneider, J., Kuhnert, R., & Hapke, U. (2017) Depressive symptoms among adults in Germany. *Journal of Health Monitoring* 2(3):77–83

- Brody, D. J., Pratt, L. A., & Hughes, J. (2018). *Prevalence of depression among adults aged 20 and over: United States, 2013–2016*. NCHS Data Brief, no 303. Hyattsville, MD: National Centre for Health Statistics
- Brown, S. D., Dahill D., Karakilic, E., King, D., Misha, P., Pirrioni, S., Shipton, H. & Vedi, P. (2020). *Psychological Wellbeing and Safety in a Global Context: A Rapid Evidence Assessment*. Nottingham: Nottingham Trent University
- Bruffaerts, R., Mortier, P., Auerbach, R. P., Alonso, J., Hermsillo De la Torre, A. E., Cuijpers, P., et al., (2019). Lifetime and 12-month treatment for mental disorders and suicidal thoughts and behaviours among first year college students. *International Journal of Methods in Psychiatric Research*, 28(4), e1800.
- Brunes, A., & Heir, T. (2020). Visual impairment and depression: Age-specific prevalence, associations with vision loss, and relation to life satisfaction. *World journal of psychiatry*, 10(6), 139–149.
- Bryman, A. (2018). *Social Research Methods - 5th Edition*. Oxford University Press, Oxford, UK.
- Button, K. S., Kounali, D., Thomas, L., Wiles, N. J., Peters, T. J., Welton, N. J., Ades, A. E., & Lewis, G. (2015). Minimal clinically important difference on the Beck Depression Inventory--II according to the patient's perspective. *Psychological med.*, 45(15), 3269–3279
- Caspar, R., Peytcheva, E., Yan, T., Lee, S., Liu, M., & Hu, M., (2016). Pretesting: Cross-Cultural Survey Guidelines. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan.
- Cassidy, S. A., Bradley, L., Bowen, E., Wigham, S., & Rodgers, J. (2018). Measurement Properties of Tools Used to Assess Depression in Adults with and Without Autism Spectrum Conditions: A Systematic Review. *Autism Research*, 11, 738–754
- Chand, S. P., & Arif, H. (2022). Depression. In: *StatPearls [Internet]*. Treasure Island (FL): StatPearls Publishing

- Chandrasekara, W. S., (2020). *Beyond Stigma: Perceived Barriers and Enablers for Help Seeking for Mental Health Issues in Undergraduate Students in Sri Lanka*. A Paper presented to a conference held in July, 2020 in Sri Lanka.
- Chen, W. (2020). International Students' Coping Strategies and Psychological Adaption during Early COVID-19 Outbreak Period in China. *Open Journal of Social Sciences*, 8(8), 1-12.
- Cheshire, I. J., Koderu, H. M. N. & Mulambula, S. M. (2013). Prevalence of Depression among Medical Students in Kenyan Universities. *Kenya Guidance, Counselling and Psychological Association Journal*, 3(1), 1-9.
- Christensen, M.C., Ren, H. & Fagiolini, A., (2022). Emotional blunting in patients with depression. Part I: clinical characteristics. *Annals of General Psychiatry*, 21, 10 (2022).
- Clark, L. A., Cuthbert, B, Lewis-Fernández, R., Narrow, W. E., & Reed, G. M., (2017). Three Approaches to Understanding and Classifying Mental Disorder: ICD-11, DSM-5, and the National Institute of Mental Health's Research Domain Criteria. *Psychological Science in the Public Interest*, 18(2), 72-145
- Coleman, S. J., Stevelink, S. A. M., Hatch, S. L., Denny, J. A., & Greenberg, N. (2017). Stigma-related barriers and facilitators to help seeking for mental health issues in the armed forces: a systematic review and thematic synthesis of qualitative literature. *Psychological Medicine*, 47(11), 1-13
- Colizzi, M., Lasalvia, A. & Ruggeri, M. (2020). Prevention and early intervention in youth mental health: is it time for a multidisciplinary and trans-diagnostic model for care? *International Journal of Mental Health Systems*, 14(1), 23.
- Cowling, N. (2023a). Distribution of the population in Kenya 2019, by religion. Kenya's economy and Society – Statistica Country Report.
- Cowling, N. (2023b). University Enrolment in Kenya: 2017 - 2023. Available on: <https://www.statista.com/statistics/1135820/university-enrollment-in-kenya-by-gender/>

- Cramer, K. (2017). Mental health help seeking in schools: the impact of mental health literacy, stigma, and barriers to care. Dissertation Abstracts International Section A: *Humanities and Social Sciences*, 78(3-A(E))
- Croft, Trevor N., Aileen M. J. Marshall, Courtney K. Allen, et al. (2018). *Guide to DHS Statistics*. Rockville, Maryland, USA: ICF.
- Dabana, A. & Gobir, A. A. (2018). Depression among students of a Nigerian University: Prevalence and academic correlates. *Archives of Medicine and Surgery*, 3, 6-10
- Dadi, A. F., Miller, E. R., Bisetegn, T.A., & Mwanri, L., (2020). Global burden of antenatal depression and its association with adverse birth outcomes: an umbrella review. *BMC Public Health*, 20, 173
- Dai, L., Zhou, H., Xu, X., & Zuo, Z., (2019). Brain structural and functional changes in patients with major depressive disorder: A literature review. *Peer Journal*, 7, e8170
- Dattani, S., Ritchie, H., & Roser, M., (2021). Mental Health. Published online at Our World In Data.org. Retrieved from: <https://ourworldindata.org/mental-health>
- Divin, N., Harper, P., Curran, E., Corry, D. & Leavey, G. (2018). Help-seeking measures and their use in adolescents: a systematic review. *Adolescent Research Review*, 3(1), 113–122
- Disabato, D. J., Short, J. L., Lameira, D. M., Bagley, K. D., & Wong, S. J. (2018). Predicting help-seeking behaviour: The impact of knowing someone close who has sought help, *Journal of American College Health*, 66(8), 731-738
- Dopmeijer, J, M., de Jonge, J. M., Visscher, T., L. S., Bovens, R. H. L. M., & Wiers, R. W., (2020). Predicting disclosure and help-seeking in university students with psychosocial problems based on stigma and attitudes towards disclosure and help-seeking. *Mental Health and Addict Research*, 5, 1-8.
- Dryden-Edwards & Shiel Jr., (2021). Depression. Available on: <https://www.medicinenet.com/depression/article.htm>

- Duffy, M. E., Twenge, J. M., & Joiner, T. E., (2019). Trends in Mood and Anxiety Symptoms and Suicide-Related Outcomes Among U.S. Undergraduates, 2007–2018: Evidence from Two National Surveys. *Journal of Adolescent Health, 65*(5), 571-708
- Eigenhuis, E., Waumans, R. C., Muntingh, A. D. T., Westerman, M. J., van Meijel, M., Batelaan, N. M., & van Balkom, A. J. L. M. (2021). Facilitating factors and barriers in help-seeking behaviour in adolescents and young adults with depressive symptoms: A qualitative study. *PloS one, 16*(3), e0247516.
- Evans-Lacko, S., Aguilar-Gaxiola, S., Al-Hamzawi, A., Alonso, J., Benjet, C., Bruffaerts, R., Chiu, W. T., et al. (2018). Socio-economic variations in the mental health treatment gap for people with anxiety, mood, and substance use disorders: Results from the WHO World Mental Health (WMH) surveys. *Psychological Medicine, 48*(09), 1560–1571
- Fekih-Romdhane, F., Chebbi, O., Sassi, H., & Cheour, M. (2021). Knowledge, attitude and behaviours toward mental illness and help-seeking in a large nonclinical Tunisian student sample. *Early intervention in psychiatry, 15*(5), 1292–1305.
- Filipowich, M., (2018). What Are the Advantages & Disadvantages of Correlation Research? Available on: <https://classroom.synonym.com/advantages-disadvantages-correlation-research-8359597.html>
- Fishbein, M., & Ajzen, I. (2010). *Predicting and changing behaviour: The reasoned action approach*. New York: Psychology Press (Taylor & Francis)
- Flannery, K. M., Vannucci, A. M. S., & Ohannessian, C. M., (2018). Using Time-Varying Effect Modeling to Examine Age-Varying Gender Differences in Coping Throughout Adolescence and Emerging Adulthood. *Journal of Adolescent Health, 62*, S27–S34
- Fontaine, R. E., (2018). Describing Epidemiologic Data. *Centers for Disease Control and Prevention*.
- Forsyth, A., (2022). Therapist. Retrieved from: <https://zencare.co/provider>

- Fox, S. (2022). How to Determine Survey Sample Size: A Guide Retrieved from: <https://survicate.com/blog/survey-sample-size/>
- Fusar-Poli P. (2019). Integrated Mental Health Services for the Developmental Period (0 to 25 Years): A Critical Review of the Evidence. *Frontiers in psychiatry*, 10, 355.
- Gelinas, L., Pierce, R., Winkler, S., Cohen, I. G., Lynch, H. F., & Bierer, B. E., (2017). Using social media as a research recruitment tool: Ethical issues and recommendations. *The American Journal of Bioethics*, 17(3), 3-14
- Graham, M., Hallowell, N., & Savulescu, J. (2021). A Just Standard: The Ethical Management of Incidental Findings in Brain Imaging Research. *The Journal of law, medicine & ethics: A journal of the American Society of Law, Medicine & Ethics*, 49(2), 269–281.
- Grey, I., Arora, T., Thomas, J., Saneh, A., Tohme, P., & Abi-Habiba., R., (2020). The role of perceived social support on depression and sleep during the COVID-19 pandemic. *Psychiatry Research*, 293, e113452
- Habibzadeh, F. & Habibzadeh, P., (2020). The mean prevalence. *Epidemiologic Methods*, 9(1), 20190033
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). *Multivariate Data Analysis (8th ed.)*. United Kingdom: Cengage Learning
- Hakami, R. M., (2018). Prevalence of psychological distress among undergraduate students at Jazan University: A Cross-Sectional Study. *Saudi Journal of Medicine and Medical Science*, 1(6):82–8.
- Halverson, J. L., Ravinder, N. B., Moraille-Bhalla, P., Andrew, L. B., & Leonard, R. C. (2020). Depression. Retrieved from: <https://emedicine.medscape.com/article/286759-overview#a4>
- Harandi, T. F., Taghinasab, M. M., & Nayeri, T. D. (2017). The correlation of social support with mental health: A meta-analysis. *Electronic physician*, 9(9), 5212–5222.

- Hawkes, S., Buse, K. & Kapilashrami, A. (2017). Gender blind? An analysis of global public-private partnerships for health. *Global Health, 13*, 26
- Heinig, I., Wittchen, H. U., & Knappe, S., (2021). Help-Seeking Behaviour and Treatment Barriers in Anxiety Disorders: Results from a Representative German Community Survey. *Community Mental Health Journal, 57*, 1505–1517
- Helm, K., Viol, K., Weiger, T. M., Tass, P. A., Grefkes, C., del Monte, D., & Schiepek, G., (2018). Neuronal connectivity in major depressive disorder: A systematic review. *Neuropsychiatric Disease and Treatment, 14*, 2715-2737
- Hernandez, J. B. R. & Kim, P. Y. (2021). Epidemiology Morbidity and Mortality. In: StatPearls Treasure Island (FL): Available in: <https://www.ncbi.nlm.nih.gov/books/NBK547668/>
- Herr, D. (2018). Scarcity as the Severance Between Intentions to Save Water and Actual Water-Saving
- Hess, T. R., & Tracey, T. J. G. (2013). Psychological help-seeking intention among college students across three problem areas. *Journal of Counselling & Development, 91*(3), 321–330
- Hinck, M., (2017). Today is World Health Day – Let’s Talk About Depression. Available on: <https://jamaicahospital.org/newsletter/today-is-world-health-day-lets-talk-about-depression/>
- Hu, J., Zheng, Q., Zhang, Y., Liu, C., Tian, X., Liu, X., Wang, D., & Ma, J., (2021). Help-seeking behaviour of individuals with schizophrenia in the general population of Hunan, China. *Scientific Reports, 11*, 23012.
- Huang, D., Yang, L. H., & Pescosolido, B. A. (2019). Understanding the public's profile of mental health literacy in China: a nationwide study. *BMC psychiatry, 19*(1), 20. <https://doi.org/10.1186/s12888-018-1980-8>

- Hubbard, K., Reohr, P., Tolcher, L., & Downs, A., (2018). Stress, Mental Health Symptoms, and Help-Seeking in College Students. *Psi chi, the international honour society in psychology*, 23(4), 293-305
- Hubley, A. M. (2014). *Beck Depression Inventory*. [In]: Michalos A.C. (eds) Encyclopedia of Quality of Life and Well-Being Research. Springer, Dordrecht
- Ibrahim, N., Amit, N., Shahar, S., Wee, L. H., Ismail, R., Khairuddin, R., Siau, C. S., & Safien, A. M. (2019). Do depression literacy, mental illness beliefs and stigma influence mental health help-seeking attitude? A cross-sectional study of secondary school and university students from B40 households in Malaysia. *BMC public health*, 19(S4), 544.
- Jacoby, A., & Li, Y., (2022). Mental Health Care Access and Individual Help-Seeking During the Covid-19 Pandemic. *Community Mental Health Journal*, 58, 1572–1583.
- January, J., Madhombiro, M., Chipamaunga, S., Sunanda, R., Chingono, A., & Abas, M., (2018). Prevalence of depression and anxiety among undergraduate university students in low- and middle-income countries: a systematic review protocol. *Systematic Reviews*, 7, 57
- Johansson, K. A., Strand, K. B., Fekadu, A., & Chisholm, D. (2017). Health Gains and Financial Protection Provided by the Ethiopian Mental Health Strategy: An Extended Cost-Effectiveness Analysis. *Health Policy and Planning*, 32(3), 376–383
- Johnson, J. A., Devdutt, J., Mehrotra, S., Bholra, P., Sudhir, P., & Sharma, A. (2020). Barriers to Professional Help-seeking for Distress and Potential Utility of a Mental Health App Components: Stakeholder Perspectives. *Cureus*, 12(2), e7128.
- Johnson, J. A., Sanghvi, P., & Mehrotra, S. (2022). Technology-Based Interventions to Improve Help-Seeking for Mental Health Concerns: A Systematic Review. *Indian journal of psychological medicine*, 44(4), 332–340.

- Jones, J. M., Ali, M. M., Mutter, R., Mosher H. R., Gokhale, M., Marder, W., & Mark, T. (2018). Factors that Affect Choice of Mental Health Provider and Receipt of Outpatient Mental Health Treatment. *Journal of Behavioural Health Services and Research*, 45(4), 614-626
- Jopp, D. S., Lampraki, C., Meystre, C., Znoj, H., & Brodbeck, J. (2021). Professional Support After Partner Loss: Likelihood and Correlates of Help-Seeking Behavior. *Frontiers in psychology*, 12, 767794.
- Jorm, A. F., Patten, S. B., Brugha, T. S., & Mojtabai, R. (2017). Has increased provision of treatment reduced the prevalence of common mental disorders? Review of the evidence from four countries. *World Psychiatry*, 16(1), 90-99
- Kanco, (2019). Mental Health Status in Kenya. Available online: <https://kanco.org/mental-health-status-in-kenya/>
- Kasomo, D. (2013). Loneliness and Depression among University Students in Kenya. *Global Journal of Human Social Science Arts & Humanities*, 13(4), 1-9
- Keith, M. G., Tay, L., & Harms, P. D., (2017). Systems Perspective of Amazon Mechanical Turk for Organizational Research: Review and Recommendations. *Frontiers in Psychology*, 8, 1359
- Khan, A., Plana-Ripoll, O., Antonsen, S., Brandt, J., Geels, C., Landecker. Sullivan, P. F., Pedersen, C. B., & Rzhetsky, A., (2019) Environmental pollution is associated with increased risk of psychiatric disorders in the US and Denmark. *PLoS Biology*, 17(8): e3000353.
- Kharitonova, A. (2019). Depression. Available at: <https://psychiatrist.md>depression>
- Koo, T. K. & Li, M. Y. (2016). A guideline of selecting and reporting intra-class correlation coefficients for reliability research. *Journal of Chiropractic Medicine*, 15, 155–63
- Kuehner, C. (2017). Why is depression more common among women than among men? *Lancet Psychiatry* 4, 146–158

- Kuruvilla, M., (2021). Are symptoms and Signs the same? Available on: <https://www.goodrx.com/healthcare-access/medication-education/signs-vs-symptom>
- Lai, H. J., Lien, Y. J., Chen, K. R., & Lin, Y. K. (2022). The Effectiveness of Mental Health Literacy Curriculum among Undergraduate Public Health Students. *International journal of environmental research and public health*, 19(9), 5269.
- Langford, A. T., Solid, C. A., Gann, L. C., Rabinowitz, E. P., Williams, S. K., Seixas, A., ... Seixas, A. A. (2018). Health psychology associations with pro-health behaviours. *Health Psychology*, 4, 1–11.
- Lanoye, A., Brown, K. L., & LaRose, J. G., (2017). The Transition into Young Adulthood: A Critical Period for Weight Control. *Current Diabetes Reports*, 17, 114.
- Lewis, G., Ioannidis, K., van Harmelen, A. L., Neufeld, S., Stochl, J., Lewis, G., Jones, P. B., & Goodyer, I. (2018). The association between pubertal status and depressive symptoms and diagnoses in adolescent females: A population-based cohort study. *PloS one*, 13(6), e0198804.
- Li, X. Y., Liu, Q., Chen, P., Ruan, J., Gong, X., Luo, D., Zhou, Y., Yin, C., Wang, X. Q., Liu, L., & Yang, B. X. (2022). Predictors of Professional Help-Seeking Intention Toward Depression Among Community-Dwelling Populations: A Structural Equation Modelling Analysis. *Frontiers in psychiatry*, 13, 801231.
- Lipson, S. K., Lattie, E. G., & Eisenberg, D. (2019). Increased rates of mental health service utilization by U.S. college students: 10-year population-level trends (2007–2017) *Psychiatric Services*, 70(1):60–63
- LoMauro, A., & Aliverti, A., (2021). Sex and gender in respiratory physiology. *European Respiratory Review*, 30(162), 210-217.

- Luitel, N. P., Jordans, M., Kohrt, B. A., Rathod, S. D., & Komproe, I. H. (2017). Treatment gap and barriers for mental health care: A cross-sectional community survey in Nepal. *PloS one*, *12*(8), e0183223.
- Lynch, L., Long, M., & Moorhead, A. (2018). Young Men, Help-Seeking, and Mental Health Services: Exploring Barriers and Solutions. *American journal of men's health*, *12*(1), 138–149.
- Mackenzie, C. S., Heath, P. J., Vogel, D. L., & Chekay, R. (2019). Age differences in public stigma, self-stigma, and attitudes toward seeking help: A moderated mediation model. *Journal of clinical psychology*, *75*(12), 2259–2272.
- Magaard, J. L., Seeralan, T., Schulz, H., & Brütt, A. L., (2017). Factors associated with help-seeking behaviour among individuals with major depression: A systematic review. *PloS one*, *12*(5), e0176730
- Maiuolo, M., Deane, F., & Ciarrochi, J. (2019). Parental authoritativeness, social support and help-seeking for Mental health difficulties in adolescents. *Journal of Youth and Adolescent*, *48*, 1056-1057
- Mathews, A., Farley, S., Conserve, D. F., Knight, K., Le'Marus, A., Blumberg, M., Rennie, S., & Tucker, Jo. (2020). “Meet people where they are”: A qualitative study of community barriers and facilitators to HIV testing and HIV self-testing among African Americans in urban and rural areas in North Carolina. *BMC Public Health*, *20*, 494
- Matlala, M., Maponya, M L., Chigome, A K., & Meyer, H (JC) (2018). Overview of mental health: A public health priority. *South African Pharmaceutical Journal*, *85*(6), 46-53
- Maurer, D. M., Raymond, T. J., & Davis, B. N. (2018). Depression: Screening and Diagnosis. *American Family Physician*, *98*(8), 508-515

- Mayer, F. B., Santos, I. S., Silveira, P. S., Lopes, M. H. I., de Souza, A. R. N. D., Campos, E. P. & Almeida, R. (2016). Factors associated with depression and anxiety in medical students: A multicentre study. *BMC medical education*, 16(1), 282.
- Mbuthia, G., Wanzala, P., Ngugi, C., & Nyamogoba, (2019). Patterns of risky Sexual Behaviour and associated factors among Undergraduates in the Coastal Region of Kenya. *African Journal of Health Sciences*, 32(3), 16-26
- McCann, T.V., Mugavin, J., Renzaho, A. & Lubman, D. L., (2016). Sub-Saharan African migrant youths' help-seeking barriers and facilitators for mental health and substance use problems: a qualitative study. *BMC Psychiatry* 16, 275.
- McKerrow, I., Carney, P. A., Caretta-Weyer, H., Furnari, M., & Miller Juve, A. (2020). Trends in medical students' stress, physical, and emotional health throughout training, *Medical Education Online*, 25(1), 1–8.
- Mendoza, H., Tully, E. C., Goodnight, B., Gray, J., & Masuda, A. (2018). The Indirect Effect of Self-Concealment on Distress through Psychological Inflexibility in Asian American, Black American, and White American College Students. *Personality and Individual Differences*, 126, 93-98.
- Minchekar, V. (2018). Academic stress and depression among college students. *International Journal of Current Research*, 10(12), 76429-76433.
- Ministry of health, (2015). *Kenya mental policy, 2015-2030*. Nairobi, Government Printers
- Mitchell, C., McMillan, B., & Hagan, T. (2017). Mental health help-seeking behaviours in young adults. *The British journal of general practice: the journal of the Royal College of General Practitioners*, 67(654), 8–9
- Mirza, A. A., Baig, M., Beyari, G. M., Halawani, M. A., Mirza, A. A. (2021). Depression and Anxiety Among Medical Students: A Brief Overview. *Advances in Medical Education and Practice*, 12, 393-398

- Moeini, B., Hazavehei, S. M. M., Zareban, I., Mousali, A., Bashiriyan, S., Soltanian, A. R., & Kafami, V., (2017). Effectiveness of an Educational Program Based on the Theory of Planned Behaviour for Improving Safe Sexual Behaviour Intention among Addicted Males: A Quasi Experimental Study. *International Journal of High Risk Behaviour Addiction*, 6(2), e32432
- Moshe, I., Terhorst, Y., Cuijpers, P., Cristea, I., Pulkki-Råback, L., & Sander, L., (2020). Three Decades of Internet- and Computer-Based Interventions for the Treatment of Depression: Protocol for a Systematic Review and Meta-Analysis. *JMIR Res Protoc*;9(3), e14860
- Mubanga, N., Baumgardner, D. J., & Kram, J. (2017). Health Care Transitions for Adolescents and Young Adults with Special Health Care Needs: Where are we now? *Journal of patient-centred research and reviews*, 4(2), 90–95.
- Muhorakeye, O. & Biracyaza, E., (2021). Exploring Barriers to Mental Health Services Utilization at Kabutare District Hospital of Rwanda: Perspectives from Patients. *Frontiers in Psychology*, 12, e638377
- Mumang, A. A., Syamsuddin, S., Maria, I. L., & Yusuf, I., (2021). Gender Differences in Depression in the General Population of Indonesia: Confounding Effects. *Depression Research and Treatment*, 2021, ID 3162445.
- Muriungi, S. K., & Ndeti, D. M., (2013). Effectiveness of psycho-education on depression, hopelessness, suicidality, anxiety and substance use among basic diploma students at Kenya Medical Training College. *South African Journal of Psychiatry*, 19(2):41-50.
- Mutiso, V., Pike, K., Musyimi, C., Rebello, T., Tele, A., Gitonga, I., Ndeti, D. (2018). Changing patterns of mental health knowledge in rural Kenya after intervention using the WHO mhGAP-Intervention Guide. *Psychological Medicine*, 49(13), 2227-2236

- Muthuuri, J. G., (2021). Influence of selected psychosocial challenges on Academic performance among first year students in Kenyatta university, Nairobi County. A Master of arts thesis submitted to Methodist University, Kenya
- Mwongela, A. (2018). Pathways to Mental Healthcare Barriers and Management Experiences of Adults Living with Mental Illness in Kenya. A Msc. dissertation submitted to the University of Nairobi
- Narusyte, J., Ropponen, A., Alexanderson, K., & Svedberg, P. (2017). Internalizing and externalizing problems in childhood and adolescence as predictors of work incapacity in young adulthood. *Social psychiatry and psychiatric epidemiology*, 52(9), 1159–1168.
- Nasheeda, A., Abdullah, H., Krauss, S. E., Ahmed, N., (2019). A narrative systematic review of live skills education: effectiveness, research gaps and priorities. *International Journal of Adolescent Youths*, 24(3), 362-379
- Ngin, C., Pal, K., Tuot, S., Chhoun, P., Yi, R., & Yi, S. (2018). Social and behavioural factors associated with depressive symptoms among university students in Cambodia: a cross-sectional study. *British Medical Journal open*, 8(9), e019918
- Ngwenya, N., Nkosi, B., Mchunu, L. S., Ferguson, J., Seeley, J., Doyle, A. M., (2020). Behavioural and socio-ecological factors that influence access and utilisation of health services by young people living in rural KwaZulu-Natal, South Africa: Implications for intervention. *PLoS ONE*, 15(4), e0231080
- NIMH, (2018). *Transforming the understanding and treatment of mental illnesses*: NIMH Information Resource Centre
- Norman, P., Cameron, D., Epton, T., Webb, T. L., Harris, P. R., Millings, A., & Sheeran, P., (2017). A randomised controlled trial of a brief online intervention to reduce alcohol consumption in new university students: Combining self-affirmation, theory of planned

- behaviour messages, and implementation intentions. *The British Journal of Health Psychology*, 23(1), 108-127.
- Novotney, A., (2019). The risks of social isolation. *Monitor on Psychology*, 50(5), 32.
- Nyongesa, M. K., (2017). Depression in Kenya. Available on: <https://www.globallyminded.org/home/depression-in-kenya/>
- O'Cathain, A., Connell, J., Long, J., & Coster, J., (2020). Clinically unnecessary' use of emergency and urgent care: A realistic review of patients' decision making. *Health Expect*, 23(1), 19–40.
- Ogada, K. A., Mukadi, E. B., & Ikenye, N. J. B., (2019). Psychosocial Factors Influencing Help Seeking behaviours among Caregivers of Mental Health patients in public hospitals: A case of Gilgil Sub County Hospital, Nakuru County, Kenya. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 24(6), 22-33
- Oswalt, S. B., Lederer, A. M., Chestnut-Steich, K., Day, C., Halbritter, A., & Ortiz, D. (2020). Trends in college students' mental health diagnoses and utilization of services, 2009–2015. *Journal of American College Health*, 68(1):41–51
- Othieno, C. J., Okoth, R. O., Peltzer, K., Pengpid, S., & Lucas O. Mallaf, L. O. (2014). Depression among university students in Kenya: Prevalence and sociodemographic correlates. *Journal of Affective Disorders*, 165, 120-125
- Othman, N., Ahmad, F., Morr, C. E. I., & Ritvo, P., (2019). Perceived impact of contextual determinants on depression, anxiety, and stress: A survey with university students. *International Journal of Mental Health Systems*, 1–9.
- Oquendo, M. A., Bernstein, C. A., & Mayer, L. (2019). A Key Differential Diagnosis for Physicians-Major Depression or Burnout? *JAMA psychiatry*, 76(11), 1111–1112

- Parent, M. C., Hammer, J. H., Bradstreet, T. C., Schwartz, E. N., & Jobe, T., (2018). Men's mental health help-seeking behaviours: An intersectional analysis. *American Journal of Men's Health, 12*(1), 64–73.
- Parker, H., Hughes, A., Marsh, C., Ahmed, S., Cannon, J., Taylor-Steeds, E., Jones, L & Nigel., (2017). Understanding the different challenges facing students in transitioning to university particularly with a focus on ethnicity. *New Directions in the Teaching of Physical Sciences, 12*(1)
- Patel, V., Saxena, S., Lund, C., Thornicroft, G et al. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet, 392*(10157), 1553-1598.
- Peltzer, K., & Pengpid, S. (2018). High prevalence of depressive symptoms in a national sample of adults in Indonesia: Childhood adversity, sociodemographic factors and health risk behaviour. *Asian journal of psychiatry, 33*, 52–59.
- Pierce, E. C., & Palmer, K. (2019). The Influence of Living Situation on Help-Seeking Behaviours of Undergraduate Students. *SUURJ: Seattle University Undergraduate Research Journal, 3*(17), 133-156
- Planey, A. M., Smith, S. M., Moore, S., & Walker, T. D., (2019). Barriers and facilitators to mental health help-seeking among African American youth and their families: A systematic review study. *Children and Youth Services Review, 101*, 190-200
- Pretorius, C., Chambers, D., & Coyle, D. (2019). Young People's Online Help-Seeking and Mental Health Difficulties: Systematic Narrative Review. *Journal of medical Internet research, 6*(8), e13524.
- Priyamadhaba, B., Sanjeev, K. G., Baridalyne, N., Shashi, K., Ashwani, K. M., & Pratap, S. (2017). Screening instruments for assessment of depression. *Indian Journal for Medical Specialities, 8*(1), 31-37

- Przybylski, A. K., & Weinstein, N., (2019). Violent video game engagement is not associated with adolescents' aggressive behaviour: Evidence from a registered report. *Royal Society Open Science*, 6, e171474
- Qi, L., Zhang, Y., Wang, L., Wang, R., Wu, J., Zhou, X., Chen, J., Zhang, S., Zhou, Y., Zhang, X. Y., (2020). Sex differences in psychotic and non-psychotic major depressive disorder in a Chinese Han population. *Journal of Affective Disorders*, 268, 55-60
- Qureshi O, Eaton J (2020). *Mental Health in Africa: A Briefing for the All Party Parliamentary Group for Africa*. Royal African Society and Mental Health Innovation Network: London.
- Radez, J., Reardon, T., Creswell, C., Lawrence, P. J., Evdoka-Burton, & Waite, P., (2021). Why do children and adolescents (not) seek and access professional help for their mental health problems? A systematic review of quantitative and qualitative studies. *European Child Adolescence Psychiatry*, 30, 183–211
- Raghupathi, V., & Raghupathi, W., (2020). The influence of education on health: an empirical assessment of OECD countries for the period 1995–2015. *Archives of Public Health* 78, 20
- Rahman, S. (2017). The Advantages and Disadvantages of Using Qualitative and Quantitative Approaches and Methods in Language “Testing and Assessment” Research: A Literature Review. *Journal of Education and Learning*, 6(1), 69-71
- Rao, U. & Chen, L., (2022). Characteristics, correlates, and outcomes of childhood and adolescent depressive disorders. *Dialogues in Clinical Neuroscience*, 11(1), 45-62.
- Rasmussen, M. L., Hjelmeland, H., & Dieserud, G., (2018). Barriers toward help-seeking among young men prior to suicide. *Death Studies*, 42(2), 96-103.
- Rathod, et al., (2016). Treatment contact coverage for probable depressive and probable alcohol use disorders in four low- and middle-income country districts: The prime cross-sectional community surveys. *PLoS ONE*, 11(9)

- Rayelle, D. (2021). The Top Mental Health Challenges Facing Students. Available on: <https://www.bestcolleges.com/resources/top-5-mental-health-problems-facing-college-students/>
- Reiff, M., Kumar, M., Bvunzawabaya, B., Madabhushi, S., Spiegel, A., Bolnick, B., & Magen, E. (2018): I CARE: Development and Evaluation of a Campus Gatekeeper Training Program for Mental Health Promotion and Suicide Prevention. *Journal of College Student Psychotherapy*, 33(2), 107-130
- Richier-Rossler, A., (2017). Sex and gender differences in mental illnesses. *The Lancet Psychiatry*, 4(1), 8-9
- Rickwood, D., & Thomas, K. (2012). Conceptual measurement framework for help-seeking for Mental health difficulties. *Psychology of Res Behaviour Management*, 5, 173
- Rickwood, D.J., Mazzer, K. R. & Telford, N. R. (2015). Social influences on seeking help from mental health services, in-person and online, during adolescence and young adulthood. *BMC Psychiatry*, 15, 40.
- Ritchie, H. (2020). *Mental Health – Our World in Data*. Oxford, England
- Ritchie, H. & Roser, M. (2018). *Mental Health – Our World in Data*. Oxford, England
- Roberts, T., Miguel Esponda, G., Krupchanka, D., Shidhaye, R., Patel, V., & Rathod, S., (2018). Factors associated with health service utilisation for common mental illnesses: A systematic review. *BMC Psychiatry*, 18(1), 262
- Roberts, T., Shrivastava, R., Koschorke, M., Patel, V., Shidhaye, R., & Rathod, S. D., (2020). Is there a medicine for these tensions? Barriers to treatment-seeking for depressive symptoms in rural India: A qualitative study. *Social Science & Medicine*, 246, e112741
- Roh, S., Burnette, C. E., Lee, K. H., Lee, Y. S., Martin, J. I., & Lawler, M. J., (2017). Predicting help-seeking attitudes toward mental health services among American Indian older adults: is Andersen's Behavioural Model a good fit? *Journal of Applied Gerontology*, 36(1), 94-115

- Romano, J. L., & Netland, J. D. (2008). The Application of the Theory of Reasoned Action and Planned Behaviour to Prevention Science in Counselling Psychology. *The Counselling Psychologist, 36*, 777-806
- Sagar, R., Pattanayak, R. D., Chandrasekaran, R., Chaudhury, P. K., Deswal, B. S., Lenin Singh, R. K., Malhotra, S., Nizamie, S. H., Panchal, B. N., Sudhakar, T. P., Trivedi, J. K., Varghese, M., Prasad, J., & Chatterji, S. (2017). Twelve-month prevalence and treatment gap for common mental disorders: Findings from a large-scale epidemiological survey in India. *Indian journal of psychiatry, 59*(1), 46–55
- Sagar-Ouriaghli, I., Godfrey, E., Bridge, L., Meade, L., & Brown, J. (2019). Improving Mental Health Service Utilization Among Men: A Systematic Review and Synthesis of Behaviour Change Techniques Within Interventions Targeting Help-Seeking. *American journal of men's health, 13*(3), 1557988319857009
- Sajjad, K. S. M. (2017). *Essentials of counselling*. Abosar Prokashana Sangstha.
- Salaheddin, K. & Mason, B. (2016). Identifying barriers to mental health help-seeking among young adults in the UK: A cross-sectional survey. *British Journal of General Practice, 66*, e686-692
- Saleh, D., Camart, N., & Romo, L. (2017). Predictors of stress in college students. *Frontiers in Psychology, 8*, 19.
- Salk, R. H., Hyde, J. S., & Abramson, L. Y. (2017). Gender differences in depression in representative national samples: Meta-analyses of diagnoses and symptoms. *Psychological bulletin, 143*(8), 783–822
- Sanabria, L. (2022). Barriers to Mental Healthcare Access. Available: <https://www.accessibility.com/blog/barriers-to-mental-healthcare-access>
- Sanghvi, P. B., & Mehrotra, S. (2022). Help-seeking for mental health concerns: A review of Indian research and emergent insights. *Journal of Health Research, 36*(3), 428–441.

- Schimmenti, A. (2022). Traumatic experiences, alexithymia, and Internet addiction symptoms among late adolescents: A moderated mediation analysis. *AperTO - Archivio Istituzionale Open Access dell'Università di Torino*
- Scott, S. & Walter, F. (2010). Studying help-seeking for symptoms: The challenges of methods and models. *Social and Personality Psychology Compass*, 4, 531-547
- Seamark, D., & Gabriel, L. (2018). Barriers to support: A qualitative exploration into the help-seeking and avoidance factors of young adults. *British Journal of Guidance & Counselling*, 46(1), 120–131.
- Serrano, D., Martí-Lluch, R., Cárdenas, M., Solanas, P., Marrugat, J., Vilalta-Franch, J., Garre-Olmo, J., (2022). Gender analysis of the frequency and course of depressive disorders and relationship with personality traits in the general population: A prospective cohort study. *Journal of Affective Disorders*, 302, 241-248.
- Seyi-Oderinde, D. R. (2020). Counselling help-seeking behaviour among male students in a higher learning ecology. A Phd Thesis submitted to the university of the free state Bloemfontein.
- Sibiya, M. N., (2018). *Effective Communication in Nursing*. In (Ed.), Nursing. IntechOpen.
- Simmons, A. E., (2018). The Disadvantages of a Small Sample Size. Available on: <https://sciencing.com/disadvantages-small-sample-size-8448532.html>
- Singh, M., Goel, N. K., Sharma, M. K., Bakshi, R. K., (2017). Prevalence of Depression, Anxiety and Stress among Students of Punjab University, Chandigarh. *National Journal of Community Medicine*, 8(11), 666-671.
- Singh, K. K., (2022). *Research Methodology in Social Science*. K.K. Publications: Delhi, India.
- Shapiro E. (2022). A Protective Canopy: Religious and Social Capital as Elements of a Theory of Religion and Health. *Journal of religion and health*, 61(6), 4466–4480.
- Sharma, D. (2018). Types of Sampling Techniques in Physical Education and Sports. *International Journal of Advanced Research in Science and Engineering*, 7(8), 86-90

- Sharma, V. K., & Krishna, N. R., (2018). Analysis of depression, anxiety, and stress among professional students at collegiate level. *International Journal of Physical Education, Sports and Health*, 5(3):74–7
- Sharp, T., (2019). The Importance of Seeking Help. Available on: <https://blog.hif.com.au/mental-health/the-importance-of-seeking-help>
- Shehata, S. M., Abbas, A., Fathy, H. A., Salah El-Deen, G. M., & Sediq, A. M., (2018). Assessment of cognitive dysfunction, depression, and anxiety in patients with stable chronic obstructive pulmonary disease in relation to serum interleukin-6. *Egypt Journal of Chest Diseases and Tuberculosis*, 67, 341-350
- Shi, W., Shen, Z., Wang, S. & Hall, B. J. (2020). Barriers to Professional Mental Health Help-Seeking Among Chinese Adults: A Systematic Review. *Frontiers in Psychiatry*, 11:442.
- Shi, P., Yang, A., Zhao, Q., Chen, Z., Ren, X., & Dai, Q., (2021) A Hypothesis of Gender Differences in Self-Reporting Symptom of Depression: Implications to Solve Under-Diagnosis and Under-Treatment of Depression in Males. *Frontier Psychiatry* 12,589687.
- Smith, M. S., Lawrence, V., Sadler, E., & Easter, A., (2019). Barriers to accessing mental health services for women with perinatal mental illness: systematic review and meta-synthesis of qualitative studies in the UK. *The British Medical Journal*, 9(1), e024803
- Spear, S., Morey, Y., & Van Steen, T. (2020). Academics' perceptions and experiences of working with students with mental health problems: Insights from across the UK higher education sector. *Higher Education Research & Development*, 40(5), 1117–1130.
- Spronk, I., Korevaar, J.C., Poos, R. et al. (2019). Calculating incidence rates and prevalence proportions: not as simple as it seems. *BMC Public Health*, 19, 512
- Ssebunnya, J., Medhin, G., Kangere, S., Kigozi, F., Nakku, J., & Lund, C. (2019). Prevalence, correlates and help-seeking behaviour for depressive symptoms in rural Uganda: A population-based survey. *Global Mental Health*, 6, E27

- Stangor, C., Walinga, J., & Cummings, J. A., (2019). *Psychological Disorder: What Makes a Behaviour Abnormal? An Introduction to Psychology* [In] Introduction to Psychology by Jordan A. Cummings and Lee Sanders.
- Starcher, S. C., (2019). Parental Depression-Related Disclosures with Children: An Analysis Using Communication Privacy Management Theory. A Phd dissertation submitted to the College of Communication and Information of Kent State University.
- Stevens, G. J., Sharma, A. & Skeoch, K. (2022). Help-seeking attitudes and behaviours among humanitarian aid workers. *International Journal of Humanitarian Action* 7, 16.
- Streb, J., Ruppel, E., Möller-Leimkühler, A. M., Büsselmann, M., Franke, I., & Dudeck, M. (2021). Gender-Specific Differences in Depressive Behaviour Among Forensic Psychiatric Patients. *Frontiers in psychology*, 12, 639191.
- Summers, L., Meppen, D., & Ball S., (2019). Utah's Mental Health System: A collaborative endeavour of the Kem C. Gardner Policy Institute and the Utah Hospital Association. Final Report
- Syed, A., Ali, S. S., & Khan, M. (2018). Frequency of depression, anxiety and stress among the undergraduate physiotherapy students. *Pakistan journal of medical sciences*, 34(2), 468–471
- Tesfaye, G., Chojenta, C., Smith, R., & Loxton, D., (2019). Predisposing, enabling and need factors associated with skilled delivery care utilization among reproductive-aged women in Kersa district, eastern Ethiopia. *Reproductive Health*, 6(1), 167
- Theurel, A. & Witt, A. (2022). Identifying Barriers to Mental Health Help-Seeking in French University Students during the Covid-19 Pandemic. *Creative Education*, 13, 437-449.
- Thi, N., Tuyen, H., Dat, T. Q., Thi, H., Nhung, H., (2019). Prevalence of depressive symptoms and its related factors among students at Tra Vinh University, Vietnam in 2018. *AIMS Public Health*, 6(3), 307–319.

- Thomas, L. (2020). Confounding Variables: Definition, Examples & Controls. <https://www.scribbr.com/methodology/confounding-variables/>
- Thompson, R. J., Liu, D. Y., Sudit, E. & Boden, M., (2021). Emotion Differentiation in Current and Remitted Major Depressive Disorder. *Frontiers in Psychology*, 12, 685851.
- Tomczyk, S., Schomerus, G., Stolzenburg, S., Muehlan, H., & Schmidt, S., (2020a). Ready, Willing and Able? An Investigation of the Theory of Planned Behaviour in Help-Seeking for a Community Sample with Current Untreated Depressive Symptoms. *Prevention Science*, 21, 749–760
- Tomczyk S, Schmidt S, Muehlan H, Stolzenburg S, Schomerus G. (2020b). A prospective study on structural and attitudinal barriers to professional help-seeking for currently untreated mental health problems in the community. *J Behav Health Serv Res*. 47(1):54–69.
- Torres, F., (2020). What is Depression? Available on: <https://psychiatry.org/patients-families/depression/what-is-depression>
- Ünalın, D., Soyuer, F., Baştürk, M., & Elmalı, F., (2018). The Social Anxiety Levels of University Students and Their Relationship with Depression. *Anxiety and Socio-Demographic Journal*, 1–12.
- Varela, P., Spyropoulou, A., Kalogerakis, Z., Voursora, E., Moraitou, M., & Zervas, I. (2017). Association between gestational diabetes and perinatal depressive symptoms: Evidence from a Greek cohort study. *Primary Health Care Research & Development*, 18(5), 441-447
- Velasco, A. A., Cruz, I.S.S., Billings, J. O., Jimenez, M., & Rowe, S., (2020). What are the barriers, facilitators and interventions targeting help-seeking behaviours for common Mental health difficulties in adolescents? A systematic review. *BMC Psychiatry*, 20,293
- Vickery A. (2021). Men's Help-Seeking for Distress: Navigating Varied Pathways and Practices. *Frontiers in sociology*, 6, 724843.

- Wabai, Y., (2019). The Most Depressed Countries in Africa: The African exponent. *Botswana Youth Magazine*
- Wahed, W. Y. A. & Hassan, S. K., (2017). Prevalence and associated factors of stress, anxiety and depression among medical Fayoum University students. *Alexandria Journal of Medicine*, 53(1).
- Wallace, R., (2022). What is Counselling, Mental Health Therapy, Psychotherapy and Talk Therapy? Available on <https://www.fortwellness.com/what-is-counseling-mental-health-therapy-psychotherapy-and-talk-therapy/>
- Wang, V. (2019). *Scholarly Publishing and Research Methods Across Disciplines*. IGI Global. <https://doi.org/10.4018/978-1-5225-7730-0>
- Williams, T., Davis, J., Figueira, C., Vizard, T. (2021). *Coronavirus and depression in adults, Great Britain: Office of National Statistics*. London.
- White, M. G. (2020). Why Human Subjects Research Protection Is Important. *The Ochsner journal*, 20(1), 16–33.
- WHO, (2017). Depression and Other Common Mental Disorder: Global Health Estimates
- WHO, (2019). Mental disorder. Available on line: <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>
- WHO, (2020a). Adolescent Mental Health. Available online: <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>
- WHO, (2020b). Suicide Fact Sheet. Available online: <https://www.who.int/news-room/fact-sheets/detail/suicide>
- WHO, (2021). Depression and Other Common Mental Disorders: Global Health Estimates- WHO-MSD-MER-2017.2-eng.pdf
- WHO, CDC, UNAIDS, FHI 360, (2017). Bio-behavioural survey guidelines for Populations at Risk for HIV. Geneva: World Health Organization.

- Wood, et al. (2018). *Emerging Adulthood as a Critical Stage in the Life Course*. In: Halfon N., Forrest C., Lerner R., Faustman E. (eds) *Handbook of Life Course Health Development*. Springer, Cham
- Worsley, J. D., Harrison, P., & Corcoran, R., (2021). Bridging the Gap: Exploring the Unique Transition from Home, School or College into University. *Frontiers in Public Health* 9, e634285.
- Wulf, I. C., (2022). Help-Seeking and Help-Outreach Intentions of Healthcare Workers—The Role of Mental Health Literacy and Stigma in the Workplace. *Front. Education*, 7, e856458.
- Wuthrich, V. M., Frei, J., Pachana, N.A., & Oude Voshaar, R.C. (2015). Barriers to treatment for older adults seeking psychological therapy. *International Psychogeriatrics*, 27(7), 1227-1236
- Xiong, T., Kaltenbach, E., Yakovenko, I., Lebsack, J., & McGrath, P. J., (2022). How to measure barriers in accessing mental healthcare? Psychometric evaluation of a screening tool in parents of children with intellectual and developmental disabilities. *BMC Health Services Research*, 22, e1383.
- Yakerson, A. (2019). Women in clinical trials: A review of policy development and health equity in the Canadian context. *International Journal for Equity in Health* 18, 56.
- Yusoff, M. S. B. (2018). Relationships of interviewer rating judgments with academic performance and depression symptoms. *European Journal of Basic Clinical and Medical Sciences*, 1:10–16
- Zimmerman, M., Morgan, T. A., & Stanton, K. (2018). The severity of psychiatric disorders. *World psychiatry: Official journal of the World Psychiatric Association*, 17(3), 258–275
- Zulke, A. E., Kersting, A., Dietrich, S., Luck, T., Riedel-Heller, S. G., Stengler, K. (2018). Screening instruments for the detection of male-specific symptoms of unipolar depression: A critical overview. *Psychiatry Practice*, 45, 178–87

APPENDICES

Appendix A: Letter of Introduction

Nyamwange, Gideon Ongori
P.O BOX 408-40200
Kisii, Kenya
December, 2022

Dear Sir/Madam,

RE: Research Questionnaire

I am Gideon Nyamwange, a student pursuing a doctoral degree of Kisii University, and currently undertaking a research entitled “**Prevalence, Correlation of Depression and Help-Seeking Behaviours among students in Public Universities: A Case of Kisii University, Kenya**”.

This is to extend my invitation to you to participate in this study, intended for undergraduates aged 18–25 years and enrolled with Kisii University. The purpose of this study is to investigate why university students remain the least likely to seek help for emotional problems. The primary objective of this study is to increase understanding of the help-seeking behaviours underlying depression. This is to kindly request you to spare about 20 minutes of your valuable time to complete this questionnaire. Rest assured that any information you will give will be kept confidential and used only for educational purposes. In any event, you will provide information anonymously and I undertake not to disclose it to any person in any way that will reveal your identity. As part of the procedure to conceal your identity, please do not write your name anywhere on the research instruments.

Yours faithfully,

Nyamwange, Gideon

Appendix B: Consent Form

RE: INFORMED CONSENT TO PARTICIPATE IN A STUDY

I wish to state that I am willing to participate in this study entitled **“Prevalence, Correlation of Depression and Help-Seeking Behaviours among Students in Public Universities: A Case of Kisii University, Kenya.”**. The decision to participate has been reached on my own free accord without coercion.

I understand that this study will be used for Educational purposes only and that the information I will give will be kept confidential and that it will not be disclosed to any person. However, if it will be disclosed, it is only in such a way as not to disclose my identity. Further, I understand that I can withdraw at any time or choose the questions to answer and which not to, without giving any reason thereto.

Yours

.....Signature Date.....

Signature

For those using the online platform, please press the yes button at the end of the first page if you voluntarily agree to participate in this study. Press the button only after reading all the information provided and your questions having been answered to your satisfaction. If you wish to have a copy of this consent form, you may print it now. You do not waive any legal rights by consenting to participate in this study.

Appendix C: Demographic and Awareness Questionnaire (DAQ)

Section 1: Demographic Information

1. Please indicate your gender:
 - (i) Male
 - (ii) Female
2. Please indicate the range under which your age falls
 - (i) Under 18 Yrs
 - (ii) Between 18–21
 - (iii) Between 22–25
 - (iv) Over 25 years
3. Please indicate your marital status
 - (ii) Single
 - (ii) Married
4. Please indicate your year of Study
 - (i) Years 1
 - (ii) Years 2
 - (iii) Years 3
5. Please indicate your campus living arrangements
 - (i) Off-Campus
 - (ii) On-Campus Halls of residence
6. Please indicate the field of study you are enrolled
 - (i) Education
 - (ii) Health Sciences
 - (iii) Arts and Humanities
 - (iv) Commerce
 - (v) ManagementOthers; Specify _____
7. Please indicate the ethnic community you come from
 - (i) Kamba
 - (ii) Kikuyu
 - (iii) Kisii
 - (iv) Kalenjin
 - (v) Luhya
 - (vi) LuoOthers Specify _____
8. Please indicate your religious affiliation
 - (i) Christianity (Catholic)
 - (ii) Christianity (Protestant)
 - (iii) Muslim
 - (iv) Others

Section 2 Awareness of where to get help

S/N

Response
Yes No

- 1 Are you aware that depression is treatable and preventable?
Are you aware that you can get counselling services for mental problems from:
- 2 University clinic?
- 3 University Counsellor?
- 4 Peer counsellor?
- 5 Public Hospitals?

Appendix D: The BDI-II Scale

Please scrutinize carefully the 21 groups of statements of the BDI-II scale and choose one statement in each group that best describes your feelings during the past **two weeks**, including today. Indicate the statement that best describes what your feeling has been by putting a tick in one of the boxes numbered 0-3. If several statements in the group seem to apply equally well, try to eliminate some until you remain with one. Do not tick more than one statement for any single group.

	0	I do not feel sad.
	1	I feel sad much of the time.
1. Sadness	2	I am sad all the time.
	3	I am so sad or unhappy that I can't stand it.
	0	I am not discouraged about my future.
	1	I feel more discouraged about my future than I used to.
2. Pessimism	2	I do not expect things to work out for me.
	3	I feel my future is hopeless and will only get worse.
	0	I do not feel like a failure.
	1	I have failed more than I should have.
3. Past Failure	2	As I look back, I see a lot of failures.
	3	I feel I am a total failure as a person.
	0	I get as much pleasure as I ever did from the things I enjoy.
	1	I don't enjoy things as much as I used to.
4. Loss of Pleasure	2	I get very little pleasure from the things I used to enjoy.
	3	I can't get any pleasure from the things I used to enjoy.
	0	I don't feel particularly guilty
	1	I feel guilty over many things I have done or should have done.
5. Guilty Feelings	2	I feel quite guilty most of the time.
	3	I feel guilty all of the time.
	0	I don't feel I am being punished.
	1	I feel I may be punished.
6. Punishment Feelings	2	I expect to be punished.
	3	I feel I am being punished.
	0	I feel the same about myself as ever.
	1	I have lost confidence in myself
7. Self-Dislike	2	I am disappointed in myself
	3	I dislike myself.
	0	I don't criticize or blame myself more than usual
	1	I am more critical of myself than I used to be.
8. Self-Criticalness	2	I criticize myself for all of my faults.
	3	I blame myself for everything bad that happens.
	0	I don't have any thoughts of killing myself
	1	I have thoughts of killing myself, but I would not carry them out.
9. Suicidal Thoughts or Wishes	2	I would like to kill myself
	3	I would kill myself if I had the chance.
10. Crying	0	I don't cry any more than I used to.

Tiredness or	1	I get more tired or fatigued more easily than usual.
Fatigue	2	I am too tired or fatigued to do a lot of the things I used to do.
	3	I am too tired or fatigued to do most of the things I used to do.
21. Loss of Interest	0	I have not noticed any recent change in my interest in sex.
in Sex	1	I am less interested in sex than I used to be.

- 2 I am much less interested in sex now.
- 3 I have lost interest in sex completely.

Total Score: _____

THE PSYCHOLOGICAL CORPORATION

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Appendix E: Help-seeking Questionnaire (HSQ)

Below is a list of sources that you might seek help or advice from if you had persistent depressive symptoms lasting for at least 2 weeks. Please indicate by ticking your response against the number that best describes how likely it is that you will seek help from each of the listed sources. Tick,

1 = if, Extremely Unlikely;

2 = if, most unlikely;

3 = if, Unlikely;

4 = if, neither Likely nor Unlikely;

5 = if, Likely;

6 = if, most likely

6 = if Extremely likely

1		1	2	3	4	5	6	7
a	Informal sources (e.g., husband, wife, Parents, Friends, Colleagues, relatives, minister or religious leader)							
b	Formal sources (e.g. psychologist, Psychiatrist, social worker, counsellor)							
d	Phone helpline or online sources							
e	I would not seek help from anyone							
		YES			NO			
2 a	Have you sought help for an emotional problem during the past six months?							
2 b	If Yes, please indicate the source you consulted from among those listed							
i	Intimate partner (wife, husband)							
ii	Relatives, friends, and colleagues							
ii	Mental health professionals (e.g. psychiatrist, psychologist)							
iii	General doctor							
iv	Internet sources							

S/No		1	2	3	4	5
1	Stigma-related Barriers (SRBs)					
a	Feeling too embarrassed or ashamed					
b	Concern that it might harm my chances when applying for jobs					
c	Concern that I might be seen as weak for having a mental health problem					
d	Concern about what my friends or family might think, say, do or feel if it they knew that I sought help for emotional trouble					
e	Not wanting a mental health problem to be on my medical records					
f	Concern that I might be seen as “crazy” for having a mental health problem					
g	Concern that people I know might find out about my mental problem					
h	Concern that people might not take me seriously if they found out that I was having professional care					
i	Concern about what my colleagues might think, say, or do					
j	Concern about what my friends might think, say, or do					
2	Attitudinal barriers (ABs)					
a	I dislike talking about my feelings, emotions, or thoughts					
b	I am concerned about available treatments (for example, medication side effects)					
c	I want to solve the problem on my own without help from any other person					
d	I think that treatment by professionals wouldn’t help					
e	I fear being hospitalised against my will					
f	I think the problem would get better by itself					
g	I think I wouldn’t get proper treatment charging from my previous experiences with professional care for mental health					
h	I think I do not have a problem or I should be able to cope with my problem					

i	I prefer to get help from family or friends					
j	I prefer to get alternative forms of care (e.g. spiritual care, traditional healing, complementary therapies)					
3	Structural Barriers (SBs)					
a	Being unable to afford medication costs					
b	Being too unwell to ask for help					
c	Difficulty taking time off or finding time from my other duties					
d	Unsure where to get professional care					
e	Problems with transport /travel to appointments					
f	Having no one who could help me get professional care					
g	Unavailability of professionals from my own ethnic or cultural group					
4	Knowledge Barriers (KBs)					
a	Lack of awareness about depressive problems					
b	Unsure how to start or where to go to get help.					
c	Not knowing whom to talk to or from whom to seek help					
d	Lack of trust in professionals who care for mental health problems					
e	Fear that practitioners will lack cultural knowledge					
5	Perceived Behavioural Control					
a	I am confident that I can seek help for depression if I wanted to					
b	It is easy for me to seek treatment					
c	The decision to seek help for depression is beyond my control					
d	Whether or not I seek help is beyond my control					
e	I have no power to choose my appointment dates					
f	I do not have the power to influence the health professional who can see me					

Appendix F: Participant Survey Questionnaire (PSQ)

Section 1: Barriers to the Utilization of Mental Health Services

Please indicate the extent to which each of the following items would hinder you from seeking help for depression. Tick,

- 1 = if, you Strongly Disagree (SDA);
- 2 = if, you disagree (DA)

- 3 = if, not sure (NS);
- 4 = if, you Agree (A);
- 5 = if, you strongly Agree (SA)Item

Section 2: Facilitators to help-seeking behaviours

Please indicate the extent to which each of the following items would influence you to seek help for depression. Tick,

- 1 = if, you Strongly Disagree (SDA);
- 2 = if, you disagree (DA)
- 3 = if, not sure (NS);
- 4 = if, you Agree (A);
- 5 = if, you strongly Agree (SA)

		1	2	3	4	5
1	Positive Past experience					
2	Social support or positive encouragement					
3	Confidentiality and trust issues in services					
4	Positive relationship with service providers					
5	Good Mental health					
6	Perceiving the problem as serious					
7	Emotional competence (Client)					

Appendix G: Discussion Guide

1. What are the common symptoms of depression?
2. Have you seen some students display symptoms such as sadness, hopeless, loss of interest or pleasure, feelings of guilt or low self-esteem, disturbed sleep or appetite, low energy and poor concentration?
3. Do you think these symptoms are displayed by a majority or a minority of university students?
4. Do students with depression normally seek help?
5. What are some of the reasons why university students delay or avoid seeking help?
6. What are some of the benefits to be gained for seeking help?
7. What do you think are some of the ways, students can be encouraged to seek help?
8. Between males and females, which gender is more likely to seek help for depression?
Support your answer
9. What factors facilitate students into seeking help?
10. What do you think are some of the ways, students can be encouraged to embrace help-seeking behaviours?
11. Has the University put in place strategies to encourage students to seek help if they suspect experiencing depressive symptoms? Provide details.
12. If such strategies exist, how widely have they been implemented? Are they effective?
Thank you, this is the end.

Appendix H: Institutional Authorisation



KISII UNIVERSITY

Telephone: +254 20 2352059
Facsimile: +254 020 2491131
Email: research@kisiiversity.ac.ke

P O BOX 408 – 40200
KISII
www.kisiiversity.ac.ke

OFFICE OF THE REGISTRAR RESEARCH AND EXTENSION

REF: KSU/R&E/ 03/5/ 636

DATES: 19th April, 2023

**The Head, Research Coordination
National Council for Science, Technology and Innovation
(NACOSTI) Utalii House, 8th Floor, Uhuru Highway
P. O. Box 30623– 00100
NAIROBI - KENYA.**

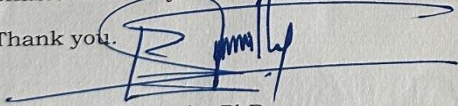
Dear Sir/Madam,

RE: NYAMWANGE GIDEON ONGORI DAS25/00001/19

The above mentioned is a student of Kisii University currently pursuing a Degree of Doctor of philosophy in Counseling Psychology. The topic of his research is, **“Prevalence, Correlation of Depression and Help-Seeking Behaviours Among Public University Students: A Case of Kisii University, Kenya”**.

We are kindly requesting for assistance in acquiring a research permit to enable him carry out the research.

Thank you.


Dr. Evans Kenanda, PhD
AG. REGISTRAR, RESEARCH & EXTENSION

Cc: DVC (ASA)
Registrar (ASA)
Director SPGS

Appendix I: Ethical Approval



KISII COUNTY GOVERNMENT DEPARTMENT OF HEALTH

Telegramme "Medical"
Telephone: (058) 31310 Kisii
E-Mail: kisiihospital@gmail.com
Web: www.kisiihospital.org.ke

CHIEF EXECUTIVE OFFICER
KISII TEACHING & REFERRAL HOSPITAL
P.O Box 92 – 40200,
KISII

REF: ISERC/KTRH/022/23
TO: NYAMWANGE GIDEON ONGORI

Date: 21ST JUNE 2023

Dear Gideon,

**RE: PREVALENCE, CORRELATION OF DEPRESSION AND HELP SEEKING BEHAVIOURS
AMONG PUBLIC UNIVERSITY STUDENTS: A CASE OF KISII UNIVERSITY, KENYA.**

This is to inform you that **KTRH ISERC** has reviewed and approved your above research proposal. Your application approval number is **ISERC/KTRH/022/23**. The approval period is **21ST JUNE 2023 – 20TH JUNE 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 **KTRH 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 **KTRH ISERC** within 72 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 **KTRH ISERC** within 72 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 **KTRH 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 also obtain other clearances needed.

Yours sincerely,


Florence Ogero.
Chair, **KTRH ISERC**

Appendix K: Map of Kisii County

