



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

**AN EARLY DETECTION MODEL FOR ANXIETY, DEPRESSION, AND SUICIDAL IDEATION
AMONG UNDERGRADUATE STUDENTS AT PUBLIC UNIVERSITIES IN NAMIBIA**

A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE

DEGREE OF

**DOCTOR OF PHILOSOPHY IN HEALTH SCIENCES IN THE FACULTY OF HEALTH, NATURAL
RESOURCES, AND APPLIED SCIENCES AT THE NAMIBIA UNIVERSITY OF SCIENCE AND
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ABSTRACT

Background: Mental health challenges among university students are an increasing global public health concern, with anxiety, depression, and suicidal ideation significantly affecting students' well-being, academic performance, and daily functioning. Persistent anxiety and depression are associated with increased morbidity, while suicidal ideation remains an important indicator of severe psychological distress and risk of suicide. In Namibia, among the undergraduates, these mental health conditions are further intensified by academic pressure, financial hardship, social adjustment difficulties, childhood adversities, and cultural barriers that discourage open discussion of emotional distress. Despite the growing burden of student mental health problems, there is limited context-specific evidence on their prevalence, predictors, students' coping mechanisms, and the practices of mental health service providers in the early identification and support of affected students in Namibian public universities. This study, therefore, sought to investigate anxiety, depression, and suicidal ideation among undergraduate students in Namibian public universities and to develop a contextual understanding of coping practices and early identification support systems.

Method: The study employed a convergent parallel mixed-methods cross-sectional design across four phases. **Phase I** comprised three sub-objectives. Sub-objective one, which employed a quantitative research approach, with 578 samples drawn from 41,861 undergraduate participants at the Namibia University of Science and Technology (NUST) and the University of Namibia (UNAM), the only two public universities in Namibia. Participants were recruited from across four regions: Khomas, Ohangwena, //Karas, and Omusati. Data were collected using a self-administered questionnaire comprising the Beck Anxiety Inventory, Patient Health Questionnaire-9, and Columbia Suicide Severity Rating Scale. Quantitative data were analysed using SPSS version 30 through descriptive statistics, Pearson's correlation coefficients, bivariate regression, and hierarchical multiple regression. Sub-Objective two employed an exploratory qualitative approach using semi-structured interviews to examine the coping mechanisms of 13 purposively sampled undergraduate students. Sub-Objective three explored the practices of 11 mental healthcare service providers in early detection and support of students experiencing anxiety, depression, and suicidal ideation in Namibia. Qualitative data were analysed using Braun and Clarke's six-step thematic analysis framework, supported by ATLAS.ti version 8. **Phase II** of this study was to conceptualise the findings that informed **Phase III**, which involved developing, describing, and

evaluating the model. The integration of findings informed the development of a context-specific model for early detection, grounded in the Health Belief Model, Interprofessional Shared Decision-Making model, and Chinn and Kramer's theory-generating approach. **Phase IV** developed the guidelines for operationalising the model.

Results: The quantitative findings revealed a high prevalence of mental health challenges among students, with 50.7% reporting moderate to severe anxiety, 73.2% meeting the criteria for depression, and 9.1% reporting an active suicidal plan. The qualitative findings generated key themes related to institutional gaps, peer-led early detection, stigma and cultural resistance, academic collaboration, informal support networks, and socio-economic vulnerabilities. Mental health service providers reported that their efforts to identify and support students were constrained by stigma, staff shortages, inadequate mental health facilities, and limited engagement of academic staff in mental health activities. Students described a range of coping strategies, including problem-focused efforts to manage stress, seeking peer and informal support, and avoidance behaviours, with emotional distress often linked to academic stressors, difficult childhood experiences, and cultural barriers to disclosure and help-seeking.

Implications: The study contributes to knowledge by providing an evidence-based, integrated model to enhance early identification and intervention for student mental health challenges. It further offers practical recommendations to strengthen institutional mental health systems, promote interdisciplinary collaboration, and improve student well-being in higher education settings. The findings informed the development of a contextually relevant Early Detection Model to strengthen coordinated screening, early identification, referral pathways, and collaborative mental health support within university settings. The study contributes important empirical evidence to the limited literature on student mental health in Namibia and provides a foundation for strengthening institutional policies, multidisciplinary collaboration, and culturally responsive interventions aimed at improving student wellbeing and preventing mental health crises, including suicide, in higher education contexts.

Conclusion: The study suggests that future researchers in the field of mental health focus on mixed-methods and longitudinal designs to produce evidence that guides mental health policy, practice, and curriculum development. Additionally, public universities should shift

from reactive to proactive interventions that identify, support, and empower students, helping them succeed amid academic pressures and socio-economic challenges.

Keywords: Anxiety, depression, suicidal ideation, undergraduate students

DECLARATION

I, Kristine Ndeuyamunye Siseho, hereby declare that the work contained in the thesis entitled “An early detection model for anxiety, depression and suicidal ideation among Namibian public universities students, Windhoek, Namibia” is my own original work and that I have not previously, in its entirety or in part, submitted it at any university or other higher education institution for the award of a degree.

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DEDICATION

I dedicate this study to my late mother, Julia Nghoongoloka. May her soul continue to rest in peace.

ACRONYMS AND ABBREVIATIONS

AA	American Asian
AACAP	American Academy of Child and Adolescent Psychiatry
AAP	American Academy of Paediatrics
ADSI	Anxiety, Depression, and Suicidal Ideation
APA	American Psychiatric Association
BAI	Beck Anxiety Inventory
CBT	Cognitive Behavioural Theory
CPD	Continuous Professional Development
C-SSRS	Columbia Suicide Severity Rating Scale
CTG	Cognitive Behavioural Theory
DSM-5	Diagnostic and Statistical Manual of Mental Health
DNA	Deoxyribonucleic Acid
EDM	Early Detection Model
FHNRAS	Faculty of Health, Natural Resources, and Applied Science
GABA	Gamma-Aminobutyric Acid
GAD	Generalised Anxiety Disorders
HBM	Health Belief Model
HPA	Hypothalamic Pituitary Adrenal
H ₀	Null Hypothesis
H ₁	Alternative Hypothesis
HRQoL	Health-Related Quality of Life
LMICs	Low-Middle-Income-Countries
LGBTQIA+	Lesbian, Gay, Bisexual, Transgender and Queer
MAOIS	Monoamine Oxidase Inhibitors

MDD	Major Depressive Disorder
MHC	Mental Health Care
MoHSS	Ministry of Health and Social Services
NCDs	Non-communicable Diseases
NUST	Namibia University of Science and Technology
OCD	Obsessive Compulsive Disorders
PICO	Population Interaction Comparison and Outcome
PHD	Patient Health Disorder
PMDD	Premenstrual Dysphoric Disorder
PS	Panic Disorder
PTSD	Post Traumatic Stress Disorder
QoL	Quality of Life
RN	Registered Nurse
SAD	Social Anxiety Disorder
SDHO	Social Determinant of Health
SDG	Sustainable Development Goal
UNAM	University of Namibia
UNESCO	United Nations Educational, Scientific, and Cultural Organisation
USA	United States of America
VRET	Virtual Exposed Therapy
WHO	World Health Organisation

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PUBLICATIONS INCLUDED IN THE THESIS

JOURNAL ARTICLES

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2. Siseho, K. N., Mahalie, R., & Endjala, T. (2025). Practices of mental health service providers in the early detection of undergraduates experiencing anxiety, depression, and suicidal ideation in Namibia. *International Journal of Sub-Saharan African Research*, 3(4), 103–116. <https://doi.org/10.5281/zenodo.18090706> (doi.org in Bing).
3. Siseho, K. N., Mahalie, R., & Endjala, T. (2026). Coping Mechanisms among Undergraduates Experiencing Anxiety, Depression and Suicidal Ideation at Public Universities in Namibia. *International Journal of Sub-Saharan African Research*, 4(1), 1-13.

CONFERENCE ATTENDED AND PRESENTATIONS

1. Siseho, K. N., Mahalie, R., & Endjala, T. N., Prevalence and predictors of anxiety, depression, and suicidal ideation among Namibian public university students. Presented at Nursing and nursing education worldwide, Frankfurt, Germany (presented by Dr. Endjala T, N, 11 July 2025)
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3. Siseho, K. N., Mahalie, R., & Endjala, T. N., Coping Mechanisms Among Undergraduates Experiencing Anxiety, Depression, and Suicidal Ideation at the Public Universities in Namibia. Presented at Conference: Health International Conference (March 2026)

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CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 INTRODUCTION OF THE STUDY

Mental disorders constitute a major component of the global burden of disease, with depressive and anxiety disorders identified as leading contributors to disability worldwide (Santomauro et al., 2020). According to the World Health Organisation (WHO, 2024), more than one billion people globally are living with mental disorders, highlighting the magnitude of mental illness as a persistent public health challenge. Estimates further suggest that approximately one in seven individuals experiences a mental disorder, while the prevalence among 18-year-olds and older is approximately 10% (Kafula et al., 2020). Suicide remains a critical consequence of untreated or poorly managed mental illness, with nearly 800,000 deaths reported annually worldwide (WHO, 2018). Moreover, suicidal ideation, planning, and previous suicide attempts are well-established predictors of suicide mortality in the general population (Quarshie et al., 2023). Evidence consistently demonstrates strong associations between anxiety, depression, and suicidal behaviour, with the presence of any psychiatric diagnosis substantially increasing the likelihood of suicidal thoughts and attempts (de Paula et al., 2020).

Anxiety is characterised by excessive fear and worry, typically involving intense yet distressing emotional responses to threat or demand (Patterson et al., 2021). Anxiety disorders comprise a group of mental health conditions, including Generalised Anxiety Disorder [GAD], panic disorder, phobias, Social Anxiety Disorder (SAD), obsessive-compulsive disorder (OCD), and Post-Traumatic Stress Disorder (PTSD) (WHO, 2017). Among these, Social Anxiety Disorders is defined by a persistent and marked fear of social or performance situations in which individuals may be exposed to possible scrutiny by others (American Psychiatric Association, 2013). Individuals with SAD commonly fear humiliation and embarrassment, and anticipated social exposure often triggers significant anxiety. This condition is prevalent among university students and may negatively affect their academic engagement, performance, and overall educational progress.

Depression is a debilitating mental health condition characterised by a persistent, depressed mood that affects an individual's thoughts, behaviour, and emotions, resulting in significant psychological distress and functional impairment (Byrne, 2020). It includes symptoms such as persistent sadness, irritability, and a feeling of emptiness; diminished interest in or pleasure in previously enjoyed activities; impaired concentration; excessive guilt; low self-esteem and hopelessness about the future, sometimes accompanied by thoughts of dying (WHO, 2022). Major depressive symptoms include persistent low mood, reduced energy, and feelings of hopelessness that substantially impair an individual's ability to work, socialise, and maintain interpersonal relationships (American Psychiatric Association, 2013). If left untreated, depression may increase the risk of suicide and remains a significant contributor to global morbidity and mortality (World Health Organisation, 2017).

Suicidal ideation refers to thoughts about ending one's life and may be classified as either passive or active. Passive suicidal ideation involves a desire to die without plans to act on these thoughts, whereas active suicidal ideation includes thinking about suicide with some level of planning or intent (Purse, 2022). Suicide presents a profound public health concern, as each death has far-reaching psychological, social, and emotional consequences for families, peers, and communities, often leaving survivors with unanswered questions regarding possible prevention strategies (WHO, 2021). Although some countries have implemented suicide prevention strategies, many, particularly in Low- and Middle-Income Countries [LMICs], remain insufficiently resourced and engaged in comprehensive prevention efforts despite experiencing a disproportionate share of suicide-related deaths (WHO, 2021). Limited funding for mental health promotion and prevention initiatives is often attributed to economic constraints, competing public health priorities, and persistent under recognition of mental disorders as critical public health concerns. Among university students, suicidal ideation is frequently associated with untreated anxiety, depression, academic stress, and social isolation, highlighting the importance of early psychological screening and accessibility to campus-based mental health screening.

The prevalence of anxiety, depression, and suicidal ideation (ADSI) among university students continues to increase, indicating a significant mental health burden. A meta-analysis of Thailand pharmacy students reported a pooled prevalence of depression at 44.26% (95% CI: 36.08–52.61; 95% PI: 8.6–85.3%) and anxiety at 52.01% (95% CI: 42.86–61.09; 95% PI: 19.3–80.5%), reflecting high levels of psychological distress in this group (Pradubkhan et al., 2026).

Suicidal ideation was also common, with a pooled estimate of 24.52% (95% CI: 14.10–36.70; 95% PI: 3.6–72.2%), showing worrying mental health outcomes and high heterogeneity among studies ($I^2 = 94.22$, $p < 0.001$).

Similarly, the prevalence of depression and suicidal ideation was 22.5% and 21.6%, respectively, with depression significantly linked to suicidal ideation ($p < .001$) among university students in Lagos, Nigeria (Ladi-Akinyemi et al., 2023). Risk factors significantly associated with both depression and suicidal ideation included low self-esteem ($p < .001$), recreational drug use ($p < .001$), alcohol dependence ($p < .001$), and a history of bullying ($p < .001$), highlighting the role of psychosocial and behavioural factors in students' mental health.

Adenynyika et al., (2021) found that college students in Nelson Bay Municipality reported a lifetime prevalence of suicidal ideation of 30.1%, nearly double that of the general population (15.5%). Among participants with suicidal ideation ($n = 79$), 9.6% had planned a suicide attempt in the past 12 months. Lifetime suicidal planning was higher among women (11.4%) than men (6.6%), highlighting gender differences in suicidal behaviours.

In Namibia, the overall prevalence of depression among Namibian university students was 43.6% ($n = 100$), with 26.6% ($n = 61$) and 17.0% ($n = 39$) of participants screening positive for moderate and severe depression, respectively (Mhata et al., 2023). Furthermore, the overall prevalence of anxiety was 30.6% ($n = 70$), with 20.1% ($n = 46$) and 10.5% ($n = 24$) of participants screening positive for moderate and severe anxiety.

Mental health disorders among university students significantly hinder the development of high-quality graduates with bright minds (Nahar et al., 2025). Although some progress has been made, research in Namibia has mainly focused on psychiatric patients, those on antiretroviral therapy, adolescent suicide, and other illnesses (Mthoko et al., 2022; Quarshie et al., 2023). In response to high suicide rates and the limited availability of evidence-based information on suicide prevention, the Ministry of Health and Social Services (MoHSS) of Namibia conducted a national situation analysis in 2018. The initiative recommended suicide prevention measures, including restricting media exposure and developing strategies to guide effective prevention and treatment.

According to Namibia's National Policy of Mental Health (2005), the country's mental health policy does not adequately address the extent and seriousness of mental health issues in Namibia, especially among young people. Moreover, a gap in policy is concerning because

university students and high school learners face significant risk factors for depression, mainly due to ongoing academic stress and performance pressures (Mofatteh, 2020). Furthermore, educational institutions should create a supportive environment to help prevent and reduce depressive symptoms, thereby enhancing [QoL] (Fernandes et al., 2023). To date, there is a lack of empirical evidence explaining the psychological mechanisms involved in the early detection of anxiety, depression, and suicidal ideation (ADSI) among Namibian undergraduate students. Moreover, the limited data on early detection and support of students experiencing ADSI in Africa, combined with a general lack of understanding about ADSI, present a related challenge for prevention and early intervention. In response, the study developed an Early Detection Model (EDM) aimed at enabling the timely identification and intervention of ADSI among undergraduates at the Namibia University of Science and Technology (NUST) and the University of Namibia (UNAM).

1.1.1 Context of the study

Namibia is an upper-middle-income country in southwestern Africa, covering approximately 820,000 square kilometers. Namibia is bordered by Angola and Zambia to the north, Botswana to the east, South Africa to the south, and by the Atlantic Ocean to the west. Namibia is divided into 14 regions and has an estimated population of 3,022,401 (National Statistics Agency, 2024). The country has two public universities: NUST and UNAM. The sampling frame of the current study comprised approximately 41,861 undergraduates across the UNAM and NUST campuses.

Two campuses of the Namibia University of Science and Technology, the Main Campus in the Khomas Region and the Eenhana Campus in the Ohangwena Region, were selected using total population sampling, as they were considered representative of the nationwide geographic distribution. For UNAM, a systematic, simple random sampling procedure was applied. From the list of all 12 campuses, every third campus was selected to ensure equal probability of inclusion. This process yielded four campuses: UNAM Main Campus, Hage Geingob Campus (Khomas Region, Central Namibia), Southern Campus (//Karas Region, Southern Namibia), and Oshakati Campus (Oshana Region, Northern Namibia).

1.2 STATEMENT OF THE PROBLEM

The development of an Electronic Data Mining (EDM) for the early identification of At-Risk Students (ADSI) was motivated by the high prevalence of mental health disorders among university students globally (Auerbach et al., 2018). Anxiety and depression are widely recognised as major contributors to reduced quality of life and impaired academic performance among students across diverse regional contexts. According to the WHO (2025), more than 720,000 individuals aged 15-29 die by suicide each year globally, highlighting suicide as a critical public health concern within this age group. In Namibia, the suicide rate is estimated at 9.7% per 100,000 population, ranking among the highest in Southern Africa after South Africa (23.5% per 100,000), Botswana (16.10% per 100,000), and Zimbabwe (14.1% per 100,000) (WHO, 2022; Boulton, 2022).

National reports further indicate that suicide remains a persistent concern in Namibia, with approximately 790 deaths attributed to suicide and 138 recorded attempts, between January 2021 and July 2022 (Carter, 2022). Despite the magnitude of the problem, mental health conditions remain highly stigmatised, creating significant barriers to prevention and early detection strategies and help-seeking behaviours among affected individuals (WHO, 2015). Institutional evidence reflected similar concerns within higher education settings. For example, NUST reported nineteen student-related deaths between 2017 and 2023, including five confirmed suicides and eleven untimely deaths (NUST death register). In addition, Siseho and Mahalie (2025) report that approximately 66.3% of first-year students experience symptoms of anxiety, 60% report depression symptoms, and 57% are unaware of available social welfare support services.

Although higher education institutions in Namibia have invested in student support services by employing mental health practitioners, including student counsellors, social workers, nurses, and psychologists, there remains limited empirical evidence regarding the adequacy, scope, and effectiveness of these services in addressing student mental health needs. At NUST, with an undergraduate population of 13,000 and postgraduate enrolment, it is supported by one social worker, one academic counsellor, and two nurses. This limited staffing capacity constrains the institution's ability to provide comprehensive psychosocial support, effective services coordination, and timely intervention for students experiencing ADSI. It is

unrealistic to address the psychosocial needs of all students and provide effective service delivery, coordination, and support for affected students.

The situation is even more critical at NUST Eenhana Satellite Campus, where there are no trained social workers, nurses, clinics, or academic counsellors available to provide mental health services. Furthermore, the practitioners available across campuses were trained in the Western counselling and psychiatric framework that may not align with culturally grounded understanding of mental illness in Namibian contexts (Bartholomew & Gentz, 2019). Similar resource constraints were observed at UNAM campuses in //Kharas and Oshana, where only one counsellor serves each campus. Such disparities in student-to-counsellor ratios place substantial pressure on service providers, increasing the risk of practitioner burnout and limiting the effectiveness and accessibility of mental health support services.

These structural limitations highlight the urgent need for scalable and contextually appropriate approaches to identifying students at risk of psychological distress and suicidality. In response to this gap, the present study developed an Educational Data Mining (EDM) model for the early detection of Anxiety, Depression, Stress, and Suicidal Ideation (ADSI) among university students, with the aim of strengthening early screening capacity and supporting evidence-based intervention planning within higher education institutions.

1.3 PURPOSE OF THE STUDY

The purpose of this study was to develop, describe and evaluate an early detection model that would facilitate early detection and support of undergraduate students experiencing anxiety, depression, and suicidal ideation from the public universities in Namibia.

1.4 OBJECTIVES OF THE STUDY

Objective 1: Situational analysis of ADSI among the undergraduate students in Namibia

1.4.1 Objective 1: Situational analysis on anxiety, depression, and suicidal ideation (Phase 1)

1.4.1.2 Objective 1a: To investigate the prevalence and predictors of ADSI among undergraduates of public universities in Namibia. (Quantitative).

1.4.1.2 Objective 1b: To explore how undergraduates cope with ADSI (Qualitative).

1.4.1.3 Objective 1c: To explore the practices of service providers in the early identification of undergraduates experiencing ADSI (Qualitative).

1.4.2 Objective 2: To conceptualise the findings for early detection model development (Phase 2).

1.4.3 Objective 3: To develop, describe, and evaluate the early detection model. (Phase 3).

1.4.4 Objective 4: To develop the operational guideline for the model (Phase 4).

1.5 RESEARCH QUESTIONS

The research questions were as follows

1. What is the prevalence and predictors of ADSI among university undergraduates at public universities in Namibia?
2. How do university undergraduates at public universities in Namibia cope with ADSI?
3. What are the practices of service providers in the early identification of undergraduate students exhibiting ADSI?
4. How can a conceptual framework be developed to guide the EDM and facilitate the timely identification and support of university undergraduates experiencing ADSI?
5. How can the EDM be developed, described, evaluated, and operationalised to support undergraduates experiencing anxiety, depression, and suicidal ideation (ADSI)?

1.6 RATIONALE OF THE STUDY

Mental health conditions, especially ADSI, are highly prevalent among university students worldwide and constitute a significant public health concern (de Aquino Nunes et al., 2024). The burden is especially pronounced in developing countries such as Namibia, where mental health resources remain limited, and institutional support systems are often insufficient to meet the students' needs. The absence of systematic early detection and intervention mechanisms for students experiencing psychological distress has created a critical gap in university support services. Without appropriate screening tools and evidence-based intervention strategies, students with ADSI may remain unidentified until their mental health status and academic function are substantially compromised

In response to this gap, the present study sought to develop an Early Detection Model (EDM) to facilitate the identification and support of public university students experiencing mental health challenges in Namibia. The study employed a mixed-methods research approach to examine the prevalence and predictors of ADSI among university students, as well as their coping mechanisms and access to support systems. Consequently, the findings of this research

are expected to contribute to the existing body of knowledge on student mental health and provide an empirical foundation for strengthening early identification strategies, informing institutional interventions, and guiding future research in higher education mental health contexts

1.7 RESEARCH HYPOTHESIS STATEMENT

Mental health concerns among undergraduates have become an increasing focus of global research as young adults often face academic, social, and financial pressures during their studies. In Namibia, limited data are available on the number of undergraduates who experience ADSI. Understanding the prevalence of these significant issues is vital for guiding support services and prevention strategies. The following hypotheses were developed to support the study's assumptions.

- H_0 : Predictors such as academic pressure, academic year, age, sex, and social support are not significantly associated with the prevalence of ADSI among public university undergraduates in Namibia.
- H_1 : Predictors such as academic pressure, academic year, age, sex, and social support are significantly associated with the prevalence of ADSI among public university undergraduates in Namibia.

The formulated null and alternative hypotheses guided the development of the early detection model by identifying academic pressure, academic year, age, sex, and social support as predictors of ADSI prevalence. These variables were entered into a multivariable logistic regression model to determine their independent and adjusted associations with ADSI. Statistically significant predictors were then incorporated into the structural design of an early detection framework as key screening and risk-stratification indicators. Hypothesis testing directly influenced both the statistical modelling process and the configuration of the evidence-based early detection model.

1.8 PARADIGM PERSPECTIVE/ASSUMPTIONS

A paradigm is a term coined by Kuhn (1970) and refers to a set of shared beliefs and agreements about how problems should be understood and addressed (Olusola, Adu & Okeke, 2022). A pragmatic perspective is a worldview and a basic set of beliefs that guide actions in research and in the interpretation of findings, including specific methods for

structuring reality in the discipline (Polit & Beck, 2008). A worldview informs the researcher's research position, grounded in philosophical underpinnings that define knowledge, reality, and values (Adu & Okeke, 2022). A philosophical paradigm in mixed methods consists of a set of beliefs or assumptions that guide the inquiry (Creswell & Clark, 2018). The researchers' philosophical stance comprises ontological, epistemological, axiological, and rhetorical assumptions, as well as a pragmatic worldview that incorporates both qualitative and quantitative methods to understand the phenomenon under study.

1.8.1 Philosophical assumptions

Research philosophy refers to a system of beliefs and assumptions about the development of knowledge (Saunders et al., 2019). Saunders identified four dominant assumptions operating at the ontological and epistemological levels: positivism, interpretivism, and pragmatism. However, Denzin & Lincoln (2008) and Guba & Lincoln (1994) identify positivism/post-positivism and interpretivism/constructivism as the most widely used philosophies in mixed-methods research. Each paradigm has a distinctive philosophical element, such as ontology (relating to the nature of reality), epistemology (concerning the relationship between the researcher and the research), methodology (the process of how knowledge is obtained), and axiology (the extent to which value and human rights are respected and protected) (Olusola-Adu & Okeke, 2022). The combination of these assumptions provides the philosophical underpinnings of this study and enables comparison among the research paradigms.

1.8.2 Ontological assumptions

Ontology refers to assumptions about the nature of reality that guide what is considered real in scientific inquiry (Creswell & Clarke, 2018; Saunders et al., 2019). Furthermore, ontology can be understood as the certainty of knowing what exists and what the researcher seeks to persuade others of (Olusola-Adu & Okeke, 2022). The researcher conceived the study and made assumptions about what is real in the world. Anxiety, depression, and suicidal ideation are undeniable facts among youth and university students. Pragmatism is not based on a single philosophical assumption; instead, it draws on several assumptions to reach its conclusions (Creswell & Creswell, 2018).

In this mixed-method study, multiple measures were used to maintain objectivity. For a qualitative data set, the researcher considered the selection of research participants and the richness of the phenomena under investigation, following a constructivist worldview. In this

context, participants living with ADSI and service providers, including social workers, counsellors, and nurses, were included in the qualitative data collection. For quantitative data, the researcher used a self-administered questionnaire. The study's findings were synthesised, and concepts were identified to inform the development of the EDM for ADSI among university students.

1.8.3 Epistemological assumptions

Epistemology refers to assumptions about the nature of knowledge, what constitutes acceptable, valid, and legitimate knowledge, and how we can communicate worthwhile knowledge to others (Burrell & Morgan, 2016; Olusola Adu & Okeke, 2022). Epistemological assumptions are the realities encountered in the research; the paradigm's purpose guides the researcher in developing new knowledge (Saunders et al., 2019). Epistemology seeks to understand the subjective aspect of the phenomenon (Creswell & Creswell, 2018). The researcher produced objective knowledge from natural settings within public university environments. To ensure epistemological independence, the researcher was independent of the participants; therefore, this did not influence the study's findings. The data collection instrument was a quantitative questionnaire administered to students. Qualitative data were collected from mental health service providers and students using separate interview guides tailored to the study objective. The findings of this study are presented in Chapter Four.

1.8.4 Axiological assumption

Axiology is the role of values and ethics within the research process. Moreover, the impact of the researcher's experience is understood in terms of their own positive beliefs and values regarding the research project (Lewis et al., 2020). In addition, axiology is the theory of value, concerned with ethics and aesthetics; hence, it answers questions on what is good and what is bad (Olusola Adu & Okeke, 2022). As a result, the role of the researcher's values was assessed throughout the research process. The researcher employed both objective and subjective perspectives in this mixed-methods approach during data collection, analysis, and interpretation of results. The researcher maintained a neutral position throughout the study, which minimised bias and error.

1.8.4 Methodological assumptions

Methodological assumptions refer to strategies that incorporate the research methodology, a plan of action, or a research design (Creswell & Plano, 2018). The current study employed a pragmatic approach, combining qualitative and quantitative methods. The mixed-methods

approach is pragmatic, allowing researchers to combine quantitative and qualitative data within a single study. A quantitative approach was used to determine the prevalence and predictors of anxiety, depression, and suicidal ideation among public university students. Concurrently, the first qualitative approach explored how undergraduate students cope with ADSI. The second examined the practices of mental health service providers in early detection and support of students experiencing ADSI.

1.8.5 Rhetorical assumptions

Rhetoric refers to the use of language and the construction of reality in the research writing process (Creswell & Creswell, 2018). The rhetorical assumption excludes itself from gathering quantitative and qualitative data and performing statistical analysis. In this study, a rhetorical assumption was employed to interpret and describe the research results. The researcher summarised the qualitative study findings as a story, and the definition emerged during the study through themes and subthemes. These were achieved through an exploration of how individuals cope with ADSI and by establishing how mental health providers detect and support students experiencing ADSI, objectives two and three.

1.9 DEFINITION OF CONCEPTS

The concepts were drawn from the research topic "An Early Detection Model for anxiety, depression, and suicidal ideation among students at public universities in Namibia."

1.9.1 Early

Early is defined as occurring before the usual or expected time (Matsumoto, 2009). In this study, early identification of students experiencing anxiety, depression, and suicidal ideation is paramount to link them to care and support from nurses, social workers, counsellors, psychologists, and psychiatrists.

1.9.2 Detection

Detection is the action or process of identifying the presence of something concealed (Matsumoto, 2009). In this context, early detection of students experiencing anxiety, depression, and suicidal ideation is crucial for prompt support, referral, and linkage to care.

1.9.3 Model

A model is a symbolic representation of reality that schematically presents relationships among phenomena in a diagrammatic format to convey an idea (Chinn & Krammer, 2018). The

study sought to develop a model in three phases: the Initial phase, the facilitation phase, and the terminal phase.

1.9.4 Anxiety

Anxiety is an emotion characterised by feelings of tension, worried thoughts, and physical changes like increased blood pressure (American Psychological Association). Anxiety disorder refers to a group of mental health disorders characterised by feelings of anxiety and fear, including Generalised Anxiety Disorder [GAD], panic disorder, phobia, Social Anxiety Disorder (SAD), obsessive-compulsive disorder (OCD), and Post-Traumatic Stress Disorder (PTSD) (WHO, 2017). Social anxiety disorder is characterised by persistent fear of one or more social or performance situations with exposure to people or possible scrutiny by others (American Psychiatric Association, 2013). A person with SAD fears being humiliated and embarrassed, and the fear of exposure provokes anxiety, which is common in university students, leading to an impaired educational career.

1.9.5 Depression

Depressive disorder (also known as depression) is a common mental disorder. It involves a depressed mood or loss of pleasure or interest in activities for extended periods (WHO, 2023). Depression is a debilitating psychological condition of a persistent state of depressed mood that affects a person's thoughts, behaviours, and emotions and causes anguish to its sufferers (Byrne, 2020). Depression is prevalent among university students, which affects their academic performance. Thus, an early-detection model is necessary.

1.9.6 Suicidal ideation

Suicidal ideation, or suicidal thoughts, is the thought process of having ideas, or ruminations, about the possibility of completing suicide (Hammer et al., 2020). Untreated cases of anxiety and depression can lead to suicidality. Therefore, early detection and support of students experiencing anxiety and depression are significant.

1.9.7 Students

A student is a person studying at a university or other institution of higher education. (Oxford University Press dictionary, 1989). The students in this context are undergraduates in their 2nd and 3rd years, registered at public universities in Namibia.

1.9.8 Public university

A public university or college is one that is state-owned or receives significant government funding (Groove, 2019). In this context, the University of Namibia and the Namibia University of Science and Technology are the public universities where this study was conducted.

1.10 CHAPTER OUTLINE

Chapter 1 was presented in the following sequence: introduction and background, problem statement, objectives, and questions, with concepts and reporting structure defined for each chapter.

Chapter 2 presents an overview of relevant literature, establishes the prevalence and predictors of ADSI, and examines coping mechanisms and support systems for undergraduates. The historical background of ADSI revealed the ancient management of ADSI and the modern management of the 20th century. The theories appropriate to this study were addressed and discussed in detail.

Chapter 3 presents the research methodology, discussing the methods and protocols used to generate data and how they align with the study objective. The study adopted a mixed-methods approach to address the research questions, aligning with the research objective.

Chapter 4 presents the quantitative results establishing the prevalence and predictors of ADSI among university students, as part of Phase I of this study.

Chapter 5 presents the study's qualitative results on students' coping mechanisms and on mental health providers' practices in the early detection and support of students experiencing ADSI. The detailed discussion of the study's findings was also presented in this Chapter.

Chapter 6 outlines the concepts identified through data analysis. The researcher classified these concepts and developed a relationship statement to connect them. This Chapter laid the foundation for a model to support early detection and intervention for students facing mental health issues.

Chapter 7 presents the model development: a description of the model's structure and evaluation process.

Chapter 8 presented the study's key contributions, limitations, and recommendations.

1.11 CHAPTER SUMMARY

Chapter one presented the introduction and background, the statement of the problem, and the context of the study. The research aim, question, objectives, and hypothesis statement were also presented in this Chapter. The philosophical underpinning, the study overview, and the definitions of concepts were also discussed in this Chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter presented an overview of the study, including the background, purpose, objectives, research questions, and the philosophical underpinnings. This chapter presents the context of the review of related literature and published studies to get an overall understanding of the prevalence and associated predictors of anxiety, depression, and suicidal ideation among university students. Exploring the literature in depth guided the researcher in identifying key variables relevant to the study, which in turn helped establish the relationship between ideas and practices, thereby defining the study's context at national and global levels. The literature review reveals the extent of what has already been done and what remains to be done in early detection and support for undergraduates experiencing ADSI. The practices of mental health services providers were also purposively selected for review and discussion.

2.2 OVERVIEW OF ANXIETY DISORDER

Anxiety disorders constitute the largest group of most common mental health conditions in Western societies and are the leading cause of disability (Craske et al., 2017). Globally, over a billion people live with mental health conditions (WHO, 2024). Approximately 1 in 7 people globally live with a mental health condition, most of whom live in LMICs, where most of the world's population lives. In general, anxiety disorders affect 4.4% of the global population; in Africa, 3.8%; in America, 6.7%; in South Asia, 5.3%; in Europe, 3.7%; and in the Western Pacific, 3.6%.

According to WHO (2024) and Javaid et al. (2023), one in every seven people in the world live with a mental disorder, including 58 million children and adolescents, which significantly disturbs their individual cognition, emotional regulation, or behaviours (WHO, 2022). Moreover, a staggering 82% of these cases were concentrated in low- and middle-income countries (LMICs) (Kamruzzaman et al., 2022). Anxiety disorder metrics show a continuous increase in prevalence, with Portugal having the highest prevalence of 8,671 per 100,000, followed by Brazil, Iran, and New Zealand (Javaid et al., 2023). Furthermore, in Australia, young persons aged 16-24 have the highest prevalence of mental health disorders (38.8%),

with anxiety and depressive episodes being most prevalent (Dear et al., 2024; Bloomfield et al., 2024). In Bangladesh, the prevalence of anxiety among university students was moderate to severe, with anxiety, depression, and stress ranging from 25% to 71% (Hossain et al., 2022). Mental health challenges among university students contribute to poor academic performance and attrition (Auerbach et al., 2016; Bruffaerts et al., 2018). Liu et al. (2023) argue that college students are vulnerable to mental illness from adolescence and early adulthood. The risk factors of anxiety must be clarified, and protective factors should be emphasised among university students to reduce mental health risks.

In the African region, Kenyan university students reveal that 19.4% experience anxiety and depression (Ondeng & Otieno, 2025). The country-specific prevalence reveals that 80 % of the university students experience mild to moderate anxiety symptoms (Siseho et al., 2025). Concurrently, the study conducted among medical students in Namibia highlights that the prevalence of anxiety, stress, and burnout was 34%, 30.6%, and 36.2%, respectively (Mhata et al., 2023).

2.2.1 History of anxiety disorder

The earliest studies of anxiety gave detailed descriptions of how anxiety has existed as part of the human experience. According to Ghinassi (2010), during the prehistoric ages of the 1800s, spiritual theorists understood that anxiety is mental anguish and odd behaviours. In addition, Ghinassi stated that anxiety was managed through the procedure of “trephining” by boring a hole in the skull to relieve pressure in the head. During this period, Ghinassi (2010) stated that the archaeologist believed that those suffering from mental disorders wore amulets to help drive away the evil spirit. The Babylonians, including the Persians, Egyptians, and Hindus, concluded that mental and physical ailments resulted from gods angered by disobedience (Ghinassi, 2010). Ghinassi further discussed that the earliest management of mental and physical illness was done by priests, wizards, shamans, medicine men, and magicians by using loud noises, foul odours, and bitter potions to remove evil spirits. If those interventions failed, healers resorted to flogging, shock, starvation, torture, or surgery to make the body uninhabitable by the demon.

Anxiety was used as a diagnostic term with reference to pantophobia and anxiety neurosis from the 19th century into the 20th century (Croq, 2017). Generalised anxiety disorder was identified as a diagnostic category in the Diagnostic and Statistical Manual of Mental Disorders

(DSM-III) in 1980, when anxiety neurosis was split into Generalised Anxiety Disorder (GAD) and panic disorder (PD). According to Jadhav (2025), since the 1980s, there have been medical advances in anxiety treatment, with the introduction of the Selective Serotonin Reuptake Inhibitors (SSRIs) in the late 1980s and 1990s. Conditions such as GAD, panic disorder, and social anxiety disorder are pharmacologically managed by the SSRIs (Jadhav et al., 2025). Treatment of anxiety disorders, such as Cognitive Behavioural Therapy (CBT) and Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs), is discussed in more detail on page 25 of this thesis.

With the rapid global expansion of social media, a study conducted in Uganda observed that these platforms have become ubiquitous since the mid-2000s, with applications such as Facebook, Instagram, Twitter, and TikTok, and that they have strongly influenced how individuals interact, communicate, and perceive themselves (Fatuma, 2024). These platforms are strongly associated with stress, self-image concerns, and anxiety, especially among young adults (Tripathi & Jain, 2024). Although the relationship between anxiety and social media is complex, evidence consistently demonstrates a link mediated through mechanisms such as social comparison, fear of missing out, cyberbullying, and sleep disturbances (Fatuma, 2024). Concurrently, economic crisis, youth unemployment, and widening inequality create ongoing stress and anxiety, particularly for young people navigating education and early careers (WHO, 2022)

Mental health research in Namibia has gained momentum, although there are still relatively few publications on mental health, where the studies primarily focus on depression, other than other mental health disorders (Chipare et al., 2021). The Namibian mental health policy of 2005 has been complemented by recent digital campaigns, showing a recognition of mental health as a public priority. In September 2025, the Minister of Health and Social Services tabled a Mental Health Bill, a landmark piece of legislation, aimed at transforming mental health care in Namibia and safeguarding the dignity, rights, and well-being of all Namibians (WHO, 2025). The bill is designed to be a modern, comprehensive, and human rights-based framework for mental health care, aimed at strengthening the prevention, treatment, and management of mental health conditions in a timely manner. Namibia is actively working to improve its mental health system, including drafting a National Strategic Plan on Mental

Health and updating the legal framework to better integrate mental health care into broader health services (WHO, 2024).

2.2.2 The developmental aspect of anxiety disorders

Generalised anxiety appears to predict depression later in life. Notwithstanding the prediction of genetic vulnerability, which was highlighted in the theory of the stress-diathesis model (Leonardo & Hen, 2007).

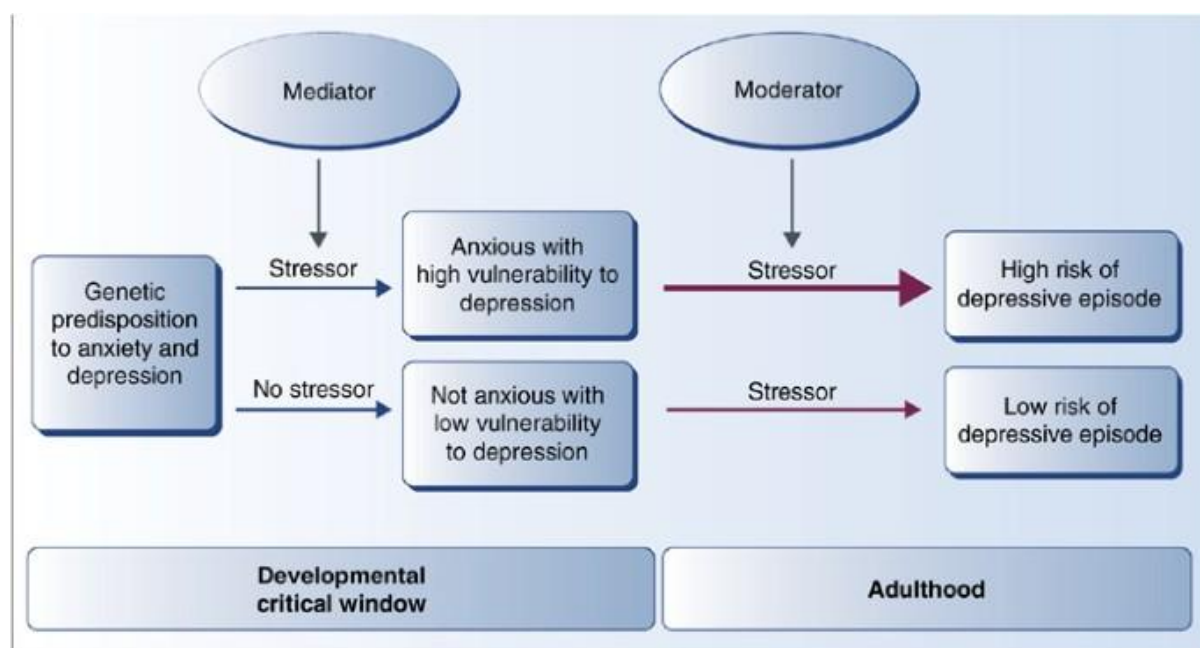


Figure 2: Anxiety as a Developmental Disorder. Leonardo, E. D., & Hen, R., 2008.

Anxiety as a developmental disorder shows how genetic vulnerability, stress, and psychological factors (mediators and moderators) interact to influence a person's risk of experiencing depression Figure 2. However, the risks are not fixed; instead, they depend on how stress interacts with a person's biological and emotional characteristics across development and adulthood. Genetic predisposition indicates that genes alone do not determine outcomes; however, stress during early development can intensify vulnerability. Anxiety is a mechanism (mediator) that connects early experiences to risk later. People with higher vulnerability to anxiety have a higher risk of depression in adulthood.

2.2.3 Different anxiety disorders

Over a quarter century, various editions of the Diagnostic and Statistical Manual for Mental Disorders (DSM), e.g., American Psychiatric Association (APA), have been used to classify

mental disorders, including anxiety disorders, to ensure that all patients are correctly diagnosed and managed (Taylor et al, 2009). Anxiety is a prevalent, powerful, and private feeling that individuals experience, including recognition of vulnerability, which is an inevitable part of human existence, especially in our fast-moving and globalised world (Vaziri, 2024). Croc (2015) stated that since the 20th century, anxiety has been classified as a psychiatric disorder. According to the (WHO, 2022; Ressler, 2015, & American, 2015) report, specified diagnoses of anxiety disorders are as follows:

- Generalised Anxiety Disorder (GAD). GAD is characterised by persistent and excessive worry about daily activities or events. It becomes difficult for the patient to control how they feel physically, usually along with an anxiety disorder or depression.
- Panic Disorder (PD). Panic disorder involves panic attacks and fear of continued panic attacks, which reach a peak within a minute (panic attack), characterized by shortness of breath, chest pain, and pounding (heart palpitations).
- Social Anxiety Disorder (SAD). SAD involves intense fear and worry about social situations that might make the person feel humiliated, embarrassed, or rejected. The person may experience fear of being judged or viewed negatively by others.
- Agoraphobia. With agoraphobia, the person experiences excessive fear, worry, and avoidance of situations that might cause a person to panic or feel trapped, helpless, or embarrassed.
- Separation Anxiety Disorder (SAD) is due to excessive fear or worry about being separated from people with whom the person has a deep emotional bond.
- Specific phobias are characterised by intense, irrational fears of specific objects or situations that lead to avoidance behaviours and significant distress.
- Selective mutism (consistent inability to speak in specific social situations, despite the ability to talk comfortably in other settings, primarily affecting children). This interferes with schoolwork and social functions.
- Anxiety disorder due to medical conditions includes symptoms of intense anxiety or panic caused by physical health problems.

Substance/medication anxiety disorder involves anxiety or panic due to misusing drugs, taking medication, being exposed to toxic substances, or withdrawal from drugs.

2.2.4 Biological perspective of anxiety disorders

Currently, very little is known about the biological development of anxiety disorders. The pathogenesis of anxiety disorders is multifaceted, involving multiple interactions between biological factors, environmental and psychosocial mechanisms, and multiple risk factors and the pathology of anxiety disorders (Schiele & Domschke, 2018). Epigenetic mechanisms, including DNA methylation (e.g., CpG methylation), histone modifications (e.g., acetylation), and microRNAs, which act as mediators between genes and the environment, contribute to increased vulnerability to mental disorders (Schiele et al., 2020). Indeed, environmental factors such as early adverse childhood experiences, stress, and stressful life events are associated with anxiety disorders. The recent approach of epigenetics and genetic environment was used to identify biomarkers of anxiety disorders among individuals (Lin & Tsai, 2020).

Anxiety and its disorders involve the brain regions that are devoted to fear recognition, such as the amygdala, prefrontal cortex, and hippocampus, and neurochemicals such as gamma-aminobutyric acid (GABA), epinephrine, dopamine, and serotonin (Horwitz, 2013). Concurrently, Emilien et al. (2020) discussed that anxiety disorders are hypothesised to be mediated by persistent alterations of the neurotransmitter in the hypothalamic-pituitary-adrenal (HPA) axis systems that regulate stress responses. In addition, Emilien et al. reported that laboratory psychophysiological examinations showed that patients with GAD and PD exhibit a substantially broader range of significant increases in forehead muscle tension, likely reflecting peripheral manifestations of central hyperarousal.

2.2.5 Cognitive aspects of anxiety disorders

The cognitive aspects of anxiety, according to Ferreri et al., (2011) are classified into the following domains: firstly, the executive function, and attention processes, secondly, the memory deficit in working episodic and autobiographical memory, the thirdly one encompasses maladaptive cognitions, thoughts, and beliefs and finally burgeoning area refers to obsessive-compulsive disorder and post-traumatic stress disorders, which concerns a person's own belief (Ferreri et al., 2011). Cognition is the umbrella term for the mental

processes involved in acquiring knowledge and encompasses almost all your mental activity and information processing (Byrne, 2020).

2.2.6 Personality traits' effect on anxiety disorders

The five known personality traits, such as neuroticism, have a positive relationship with anxiety disorders because people are emotionally unstable and experience emotional worries, which cause mental health problems such as anxiety, anger, depression, and substance abuse (Thuy, 2023, & Lui et al., 2023). Furthermore, low self-esteem has a significant negative correlation with anxiety disorders. According to Lui et al. (2023), neuroticism is a fragile personality trait characterised by low extraversion and low conscientiousness. Conscientiousness and extraversion are protective factors against mental health conditions (Lyon et al., 2021). Figure 3 gives a detailed argument on personality traits in relation to mental health disorders.

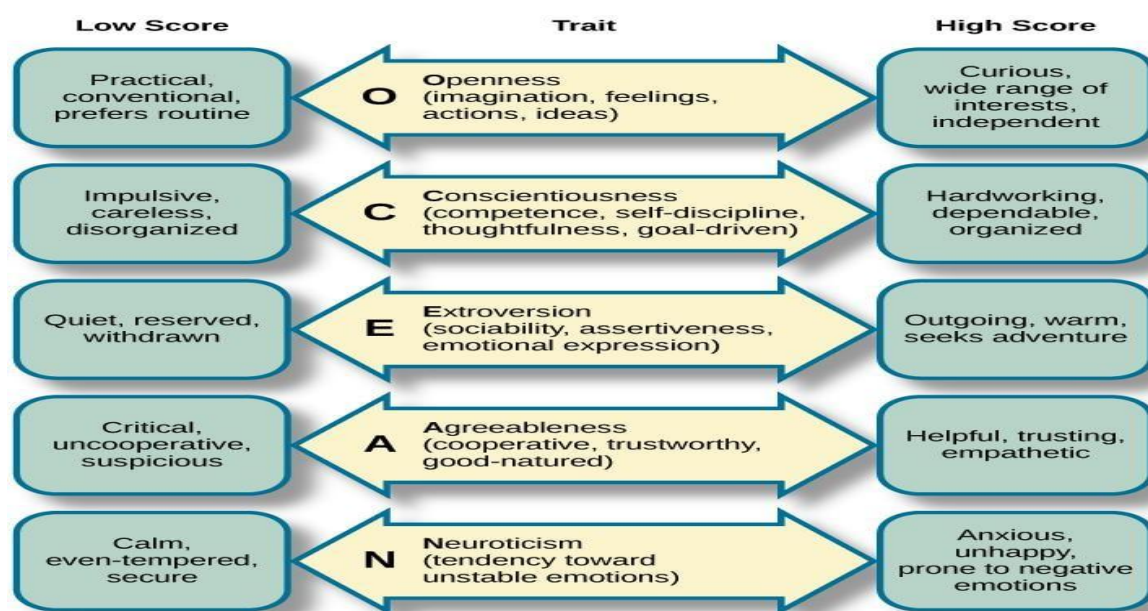


Figure 3: Personality Traits: The 5 Models of personality by Lim (2023)

Big Five personality traits, also known as OCEAN, Figure 3. Each trait exists on a spectrum, with Big Five characteristics that emerge when someone scores low or high on it. Openness reflects a person's enjoyment of new experiences, ideas, and creativity. A low score indicates that an individual is not highly focused on new ideas, whereas a high score indicates that the individual is curious, imaginative, and open to new ideas. Conscientiousness is a trait characterised by competence, self-discipline, thoughtfulness, and goal-directedness. A low

score on conscientiousness is associated with impulsivity, carelessness, and disorganisation, whereas a high score is associated with hard work, dependability, and organisation (Soto & John, 2017). Low conscientiousness may make it harder for students to manage workloads and deadlines.

Extroversion refers to sociability, assertiveness, and emotional expression. A lower extraversion score is associated with quietness, reserve, and withdrawal, which may make it more difficult for the student to seek social support. In comparison, a higher score is associated with outgoingness, warmth, and a tendency to seek adventure. Agreeableness refers to a person's cooperativeness, trustworthiness, and good-naturedness. A low score is associated with being critical, uncooperative, and suspicious (DeYoung et al., 2016; Lim, 2023). A person with a high agreeableness score is helpful, trusting, and empathetic in their approach; the brief literature review underpinning the delineation of the present model is accurate. Neuroticism refers to a tendency toward unstable emotions; thus, higher scores indicate anxiety and unhappiness, making a person prone to negative emotions, whereas lower scores indicate a calm, even-tempered, and secure person (Soto & John, 2017). Students high in neuroticism are more likely to experience stress and negative emotions.

2.2.7 Social determinants of anxiety disorders

Social determinants of health (SDOH) are the environmental conditions in which human beings are born, grow, live, work, play, and age, as well as the broader systems that shape their daily lives (Healthy People by 2030; Lui et al., 2024). SDOH has five domains: economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context (Healthy People, 2030). Economic stability, as a primary SDOH, refers to the ability to access economic resources to afford necessities of life, such as housing, food, and health care.

Educational access encompasses not only school performance and attainment of educational goals but also income and employment. Secondly, the third SDOH is health access and quality, which encompasses timely access to health care, primary health care, health insurance coverage, health literacy, and a safe environment, including adequate facilities and safety. Finally, the social and community context refers to the environment in which people live, including interpersonal relationships and institutions, as well as the cohesion and connectedness among community members (Healthy People by 2030). Given these points and

its five comprehensive domains, the SDOH framework provides a robust basis for studying youth well-being, enabling researchers to examine factors that influence health (Lui et al., 2024).

In Namibia, the social phenomenon and determinants of health, and their effects on students' mental health and well-being, specifically transitioning to academic life, academic pressure, failure, poor grades, lack of food, shelter, transportation, lack of social support, and lack of finances, were identified as risk factors for anxiety disorders. Indeed, unmet SDOH needs can lead to adverse outcomes. For instance, about 33% to 51% of university students in the USA lack food security, which may lead to poor academic performance and transportation challenges, thereby preventing students from reaping the multiple academic and social benefits of on-campus participation and engagement (Johnson, 2020). Moreover, shelter issues such as unstable housing, homelessness, and hazardous living conditions exist among university students in urban and rural areas, contributing to poor academic performance and high dropout rates. Thus, the unmet SDOH leads to poor mental health through increased stress, anxiety, and worry that can impact college students' capacity to learn (Johnson, 2020).

2.2.8 Predictors of anxiety disorder

Regarding the factors associated with mental health conditions for this study, the socio-demographic, economic, social, academic, and health-related factors were classically associated with these mental health conditions. The socio-demographic characteristics include age, gender, academic year, nationality, institution or university, campus, living area, and place of residence, which predispose an individual to anxiety disorders. According to Mofatteh (2020), stress, anxiety, and depression are prevalent among undergraduate university students in developing countries. Mofatteh (2020) categorised the factors into the following themes: psychological, personality, academic, biological, lifestyle, social, and financial, which will be unpacked in more detail.

2.2.8.1 Psychological predictors

University and college students often get exposed to various psychological stress and distress, which negatively affect their mental well-being. Self-esteem, self-confidence, and Students who have low self-confidence, low self-esteem, high neuroticism, and negative repetitive thoughts are more susceptible to developing anxiety and depression (Mofatteh, 2020; Struijk et al., 2021; Sheldon et al., 2021). Other psychological influences include loneliness among

students who move away from their families and relatives and live independently before they adjust to a new social network. While waiting for such adjustment, students may develop anxiety, depression, suicidal ideation, alcohol abuse, and eating disorder problems (Campbell et al., 2022). Students with psychological strengths, such as optimism, self-efficacy, resilience, positive appraisals, effective coping strategies, and emotional intelligence, are more likely to experience better mental well-being (Campbell et al., 2022).

2.2.8.2 History of mental illness

Students entering the university with a history of mental conditions are more likely to experience challenges with the transition from secondary education to university level. According to Mofatteh (2020), students who experienced post-traumatic stress disorder are more prone to develop anxiety and depression during their university life compared to those without mental health conditions. Students with a personal history of mental illness appear to have a significantly greater risk of developing mental health problems at the university (Campbell et al., 2022). A combination of a history of depression and subthreshold symptoms best predicted the occurrence of depressive disorder. In contrast, anxiety disorder was best predicted by a history of anxiety and subthreshold symptoms of depression (Karsten et al., 2018).

2.2.8.3 Academic environment

Students pursuing a university degree may find it challenging and demanding. Indeed, mastering the subject content showed adverse effects on anxiety, self-esteem, and depression among college students (Limone & Toto, 2020). Furthermore, academic staff demotivation, curriculum concerns, and academic stressors predicted depression, with increased academic demand, performance anxiety, ineffective instruction, and perceived incompetence consequently contributing to poor disengagement and psychological distress (Sheldon et al., 2021). In addition, excessive academic workload negatively affects university students' mental health and undermines their academic performance, thereby hindering overall performance (Otieno, 2025). Students with mental health conditions lose interest in their studies, thereby leading to poor performance in class and failure to transition to graduation. Moreover, the inverse correlation between time spent studying, disappointment, abuse, and mistreatment negatively affects cognitive, emotional, and social development, and poor results emerge (Limone & Toto, 2022). Finally, Islam and Rabbi (2024) reported that academic stressors such

as workload, test anxiety, limited resources, health challenges, virtual teaching difficulties, strict deadlines, and inadequate guidance ultimately lead to student distress.

2.2.8.4 Childhood trauma

Childhood maltreatment has a significant impact on cognitive, social, and emotional development, leading to problems with social interaction, communication, antisocial traits, and delinquent behaviours (Kim et al., 2024). According to Chenube (2025), in Nigeria, harmful parenting behaviours such as neglect, emotional and physical abuse, and over-control have a long-lasting impact on a person's ability to control their emotions. Harmful parenting practices such as physical punishment and emotional neglect can foster disorganised behaviours in children, including heightened fear and diminished trust in caregivers (Rothwell & Davoodi, 2025; Checubé, 2025; Oladeji et al., 2010). In Botswana, Mogale et al. (2019) reported that parental alcohol abuse, drug abuse, childhood alcohol use, physical abuse, and psychological abuse significantly predict symptoms of depression in early childhood. To ensure mental health services for students, preventative measures and early intervention will be appropriate.

2.2.8.5 Treatment of anxiety disorders

Anxiety disorders must be medically diagnosed, just like any other health condition. It requires treatment through psychotherapy and medication. Medications such as antidepressants, Benzodiazepines, which can decrease worry, panic, and anxiety, and Beta-blockers that can control physical symptoms such as rapid heartbeat, shaking, and trembling (WHO, 2023; Dan & Bavi, 2015). Psychotherapy involves talk-based intervention that helps an individual to recognise and modify harmful emotions, thoughts, and behaviours guided by a healthcare provider. The health talk provider uses strategies rooted in Cognitive Behavioural Theory [CBT] (Hong et al., 2021). Another form of anxiety therapy is Virtual Exposure Therapy (VRET), which uses virtual reality technology to help individuals confront and manage fear, anxiety, and trauma (Tan et al., 2025). Psychotherapy allows individuals to express their thoughts and emotions, engage in safety behaviours, and develop improved coping strategies. The use of medication reduces the intensity and frequency of anxious thoughts. This enables the student to think clearly and focus, while preventing severe symptoms from developing into more panic attacks or depression.

2.2.9 Coping strategies for students experiencing anxiety disorders

Managing stress is key to overall coping, adjustment, and success at university. It is worth noting that coping encompasses cognitive processes and behavioural aspects, depending on the duration of exposure and on individual coping strategies, for example, first-year vs. senior students' coping strategies (Smart et al., 2025). To control and cope with anxiety disorder, students should engage in several activities to alleviate anxiety symptoms, including treatment adherence (Jirjees et al., 2024).

The coping strategies identified by Islam and Rabbi (2024) indicate that students manage anxiety through constructive strategies, such as planning, mindfulness, healthy habits, time management, sports, and positive religious beliefs. In contrast, negative coping involves self-defeating behaviours like abandonment or punishment. However, some students cope through positive religious beliefs, seeking comfort and strength from their religious practices. Religion is a source of connection and guidance to survive the storms of life (Javaid et al., 2024). While religion can help to ease anxiety, prolonged stressful life events can lower the utility of religiosity for protection and guidance (Ano & Vasconcelles, 2005).

2.3 OVERVIEW OF DEPRESSION DISORDERS

Depression is a mental disorder marked by persistent low mood and a diminished interest or pleasure in activities once found enjoyable, lasting over a prolonged period. Approximately 332 million people in the world have depression, which is more common among women than men (WHO, 2025). In China, the estimated rate of depression was 3.9% (Luo et al., 2024). Moreover, Garmabi et al. (2024) reported that 36.3% of Saudi Arabian people experience depression, compared to 43% of Indians. With reference to the study done in Mogadishu, among university students, 30.8% had mild depression, 27.1% had moderate depression, and 0.6% had severe depression. The global prevalence of depression is 4%, with 4.4% in Africa, 5.1% in the Americas, 4.3% in Southeast Asia, 4.1% in Europe, and 4.9% in the Western Pacific. WHO, 2024)

About 75% of global depression is among people from low- and middle-income countries (WHO, 2023). This is associated with socioeconomic, cultural, social, and environmental factors. Furthermore, lack of treatment, low investment in mental health care, a lack of trained health-care providers, and social stigma are also associated with mental disorders.

(WHO, 2023). However, untreated depression is often linked to suicide, which is the fourth leading cause of death among 15 to 29-year-olds (WHO, 2025). University students face considerable demands at school and at home, which can lead to psychological stress (Mirza et al., 2021). The higher prevalence of ADSI among students highlights the strain on their coping capacity, which affects their academic performance. In Namibia, 35% of university students experienced depression symptoms (Siseho et al., 2025). This higher implication calls for urgent intervention through early detection and support for university students experiencing mental health challenges.

2.3.1 History of depression

The origins of the concept of depression can be traced to Hippocrates (460-377 BC), who, in the early fifth century BC, described Melancholia, a term for losses of staff, animals, crops, and income, as well as to humoral theory of diseases (Horwitz et al., 2016). In addition, Hippocrates did not view depression as a stand-alone condition but linked it to anxiety and delusion. Furthermore, it is argued that the Greeks viewed mental disorders as diseases in terms of the four basic bodily fluids, or humors, known as blood, phlegm, yellow bile, and black bile. This emphasises that each humor possesses four properties: hot, cold, moist, or dry (Varga, 2013). When the *humors* are in balance, a healthy state is achieved. Black bile was linked to factors such as loss of staff, animals, crops, and income, as well as personal frustrations and thwarted ambitions (Reynolds & Wilson, 2013).

Early historical accounts depict depression as 'Ašašu' (distress), being the disorder of the spirit, rather than the body or the mind (Reynolds & Wilson, 2013). The condition results from the anger of the gods and goddesses; therefore, spiritual intervention by priests (ašipu) is required (Scurlock & Anderson, 2005). The first intervention involved constructing two figurines buried underground, accompanied by appropriate incantations to the god Shamash and the Queen of the underworld, intended to absorb the condition (Reynolds & Wilson, 2013). The second intervention, bloodletting, baths, exercise, and diet, was necessary to remove the evil spirit from an individual (Hippocrates, 1931). Furthermore, these people were subjected to beating, burning, flogging, ridiculing, chaining, fasting, prayer, and pilgrimages to the shrine (Reynolds & Wilson, 2013).

Treatment of depression, introduced by the Ancient Greeks, Romans, Chinese, Babylonians, and Egyptians, involved plant-based pharmacology (Reynolds & Wilson, 2014), coupled with

starvation and even beating (Schimelpfenig & Gans, 2019). Moreover, extreme intervention was to drill a hole in the individual's skull, a process called trepanation, which was a surgical procedure to get rid of the evil spirit trapped in the person's brain.

Furthermore, Horwitz & Wakefield (2023) also viewed depression as a nervous system disorder, characterised by depressive disorders, anxiety disorders, bipolar disorders, schizophrenia, and many other psychiatric disorders. These disorders were initially treated with plant-based traditional medicine, including compounds like reserpine, derived from the dried roots of *Rauwolfia serpentina*. They were effective treatments for schizophrenia (Lariat & Leon, 2023).

2.3.2 Different diagnoses of depressive disorders

The following outlines primary clinical subtypes of depression as classified in the Statistical Manual of Mental Disorders (DSM-5), with the core feature defined as shown in Table 1. Each row helps to differentiate between types of depression: episodic, chronic, hormonal, seasonal, and situational forms of depression

Table 1: Depression diagnosis and definitions.

Diagnosis	Definitions
Major Depressive Disorder (MDD)	Persistent sadness, loss of interest, and functional impairment lasting ≥ 2 weeks.
Persistent Depressive Disorder (Dysthymia)	Chronic low mood lasting ≥ 2 years, often less severe than MDD.
Bipolar Depression	Depressive episodes alternating with manic or hypomanic phases.
Seasonal Affective Disorder (SAD)	Depression is linked to seasonal changes, typically in winter.
Postpartum Depression	Depression occurring after childbirth affects mood and bonding.
Premenstrual Dysphoric Disorder (PMDD)	Severe mood symptoms before menstruation, more intense than PMS.
Situational Depression	Triggered by life events such as trauma, loss, or stress.
Atypical Depression	Mood reactivity with symptoms such as increased appetite and sleepiness.

Source: American Psychiatric Association (2013)

2.3.3 Predictors of depression disorders

Identifying the predictors of depression among university students is important because it forms a guide to developing depression prevention strategies (Zheng et al., 2024). According to Laura et al. (2024), cultural norms and expectations, the educational system, variations (e.g., the duration of undergraduate studies), and distinctive societal pressures (e.g., economic disparities, social inequalities, and access to mental health resources) were identified as risks for depression. Students face everyday stressors such as social interactions, parental and peer relationships, and pressure to impress, as well as interpersonal challenges like public speaking, lifestyle habits, and financial and time management, which can lead to psychological distress (Laura et al., 2024).

2.3.3.1 Academic environment as a predictor of depression

Academic demands and environment, years of study, and academic workloads challenge university students. The students struggle to maintain higher academic performance while facing uncertainty about future career prospects and the need to navigate employment opportunities, which strains their minds. Poor academic performance could be attributed to depression (Liu et al., 2022). The study done among Chinese students stated that students' level of depression continues to rise from the first year to the third year of college life (Liu et al., 2022). However, depression decreases in the fourth year due to resilience and achievement.

2.3.3.2 Lifestyle as a predictor of depression disorder

Lifestyle behaviours are defined as daily practices determined by different social and environmental factors (Alothman et al., 2024). The six pillars of lifestyle include lifestyle medicine, food and dietary intake, physical activity, sleep, stress management, tobacco use, and social connections (Alothman et al., 2024). Maintaining these six pillars improves health, mental health, and quality of life. On the contrary, if these pillars are neglected, there is a danger of obesity, diabetes, cardiovascular diseases, cancers, dementia, depression, and premature deaths (Natin et al., 2025). Lack of regular exercise and substance abuse, such as excessive smoking and alcohol abuse, are also associated with an increased risk of depression. According to Lui et al. (2022), persons with depressive disorder may drink a lot due to poor self-control, turning into a vicious circle of alcohol abuse and excessive smoking. Concurrently, in Saudi Arabia, the cause of depression correlates with an unhealthy lifestyle, high stress

levels, unhealthy dietary patterns, insufficient sleep, sedentary lifestyles, and physical inactivity (Allothman et al., 2024; Wang et al., 2025).

2.3.3.3 Biological factors as predictors of depression

Individual factors include age, gender, personality traits, and cognitive function. Physical health conditions, according to Remes et al. (2021), include bladder outlet obstruction, cerebral atrophy, cataracts, stroke, epilepsy, body mass index, and obesity, which were associated with depression. In addition, diabetes, urinary tract infection, forms of cancer, and disability lead to depressive mood. Furthermore, inflammatory factors, stress, the hypothalamic-pituitary-adrenal axis, and the kynurenine pathway are associated with depression (Remes et al., 2021). Other biological conditions that heighten depression were the postpartum period and gestational diabetes (Azami et al., 2019). Other factors, such as single relationship status, living alone, a higher degree of household conflict, and a history of chronic diseases, were significant predictors of depression scores (Selak et al., 2024).

2.3.4 Treatment of depression

Depressive disorder can be effectively managed through psychological therapies and the use of appropriate medications. The clinical guidelines (APA, 2023) confirm that psychological therapies are the first-line treatment for depression. Psychological management of depression primarily involves psychotherapy approaches guided by Cognitive Behavioural Therapy (CBT) and Interpersonal Therapy (IPT), offered by the therapist, that help individuals identify, reframe, and manage negative thoughts and behaviours (APA, 2025).

Pharmacologically antidepressants medications such as Selective serotonin reuptake inhibitors (SSRIs), serotonin and Norepinephrine reuptake inhibitors (SNRIs), Tricyclic antidepressants (TCAs), and Monoamine oxidase inhibitors (MAOIs) to manage both moderate and severe depression according to the WHO (2023) antidepressants especially SSRIs are widely used in the management of depression and are considered first-line pharmacological treatment due to their safety. In addition, SSRIs such as Fluoxetine play an effective role in the treatment of depression (Irons, 2024). However, there are disadvantages to their use, including poor adherence, side effects, and risk of cardiovascular symptoms and a higher recurrence rate (Xie et al., 2021).

2.3.5 Coping strategies for undergraduates experiencing depressive disorders

University students experience a variety of stressors and are at risk of mental health challenges. According to Chang et al. (2024), academic pressure, international students' status, and childhood adversities such as sexual and emotional abuse are significant stressors contributing to depression and anxiety among students. Furthermore, university students who experienced life stressors develop negative coping strategies: smoking, drinking alcohol abuse (Terrell et al., 2024). However, avoidance as a coping strategy ultimately leads to a worse quality of life. In Uganda, students encounter mental health challenges, yet coping strategies are lacking. As a result, they develop their own approaches, such as relying on religious support, counselling, social networks, mindfulness, and exercising healthy habits (Kagoya et al., 2025).

2.4 OVERVIEW OF SUICIDE AND SUICIDAL IDEATION

According to the Global Health Estimate (2021), suicide accounts for one in every 100 deaths (1.1) globally. Moreover, in 2021, 727,000 people across all ages lost their lives to suicide attempts, which account from 8.9% per 100,000. Nearly three-quarters (73%) of all suicides occur in lower LMIC, where most of the world's population lives (WHO, 2021). The latest report of WHO (2024), one in every eight persons lives with a mental health disorder, including 20% children and adolescents. Moreover, globally, suicidal is highly prevalent among 15 to 30 In Namibia, among the university students in -year-olds (Aledah et al., 2024). According to the study done in the US in 2017, 6200 suicide deaths occurred among adolescents and young adults aged 15-24 years old, making suicide a leading cause of death among individuals 10-34 years old (Kalin, 2021). Furthermore, in China, approximately, 10.7% of college students experience suicidal ideation, while 4.4 % have formulated plans toward such ends (Chen &Wang, 2024). On the other hand, African regions have the highest suicide rate in the world, estimated at 11.2% per 100,000 population (WHO, 2022).

Among university students, academic pressures, new learning approaches, exploring professional identity, being away from family and friends, loneliness, and poor coping skills increase the risk of suicide (Pimenta et al., 2025).In addition, medical students' depression is also linked to poor academic performance and issues with dissertations (Romo-Nava et al., 2019). According to Cecchin et al. (2024), one in ten college students worldwide attempts suicide during their lifetime.

According to a study conducted in Kenya among secondary school students, which indicated that 4.3% had contemplated suicide, with 25% had planned suicide, while 29.1% suicide (Kilel et al., 2025). Data from South Africa indicated the total prevalence of suicidal ideation among university students by gender and race was found to be 21.8%, with adult females having higher suicidal ideation, 24,1 % versus 17.8% (Seedat et al, 2025). While Namibia's specific findings of Siseho et al (2025), 20 % of the undergraduate students acknowledged recent suicidal thoughts, with financial stress, academic pressure, and social conditions being the major contributing factors. Therefore, reducing suicidality among university students requires a range of preventive strategies. At the organisational level, university cultures, such as support and inclusion, have been identified as preventative strategies (Qeadan et al., 2024). Health promotion plays a significant role in the suicide-preventative strategies. Among university students, suicidal ideation has a serious implication for public health, education, and national development. This calls for strengthening mental health services, expanding early intervention programs, and increasing awareness to reduce stigma, all of which can be achieved through improved access to care.

2.4.1 Predictors of suicidal ideation

There are several factors that predict suicidal ideation among undergraduates, highlighting anxiety and depression as comorbidities, along with financial stress and childhood trauma. These factors interact, increasing vulnerability and risk of psychological distress.

2.4.1.1 Excessive Internet use

Internet addiction refers to excessive use of the Internet resulting in uncontrollable urges and linkage to control Internet use, which may result in impulsivity, including anxiety, depression, and suicidal ideation and attempts. (Mzumara 2025) Internet addiction exposes students to several emotional and safety threats, which leads to psychological distress (Saeed et al., 2024; Tan et al., 2024). A study done in Malawi by Saeed et al. (2024) discussed that suicide was more prevalent among those using the Internet excessively. Young adults spend most of their time on the Internet due to gaming, social media, and pornographic use (Mzumara, 2024).

In China, in addition, prolonged use of mobile phones increases the risk of exposure to suicide pictures, videos, texts, and other life-threatening scenarios (Wang et al, 2024). As a result, such individuals experience poor sleep patterns, body aches, headaches, dry eyes, and poor academic performance (Wang et al., 2024; Višnjić et al., 2024; Offor et al., 2024). Additionally,

university students are at risk of Internet addiction, especially in institutions that lack counsellors and inspirational lecturers who fail to facilitate safe use of social media safely and constructively (Salari et al., 2025). Since suicidal ideation is a serious predictor of suicide, screening, supporting social activities, and emotional learning programmes, teaching parenting skills, and stress management are required elements for the early detection and prevention of suicide among university students (Hussein et al., 2024).

2.4.1.2 Gender aspects

The predictors of suicidal ideation in African regions include female gender (Mzumara, 2024; Selak et al., 2024). Suicidal ideation is more common among Lesbian Gay Bisexual Transgender Queer +plus (LGBTQ+) students, who are more likely to endorse suicide ideation and attempts throughout their lifetime (Keum et al., 2025; Kerr et al., 2024). Moreover, suicidal ideation was higher among people with non-heterosexual students, due to lowered levels of self-esteem, feeling disregarded, disrespected, and insufficient attention from their surroundings (Oh et al., 2025). However, in China, a significantly higher rate of suicidal ideation was observed among males, females, whites, and students of colour, but not among males of colour (Li, 2025). Another study done among American Asian (AA) women revealed that female gender was linked to higher odds of suicidal ideation, compared to men.

2.4.1.3 Lack of social support

Social support refers to the affection and support provided by family, friends, and other important people (Vu et al., 2025). Poor social support and poor parenting strategies were perceived as significant predictors of suicidal ideation among youth (Hussein & Yousef, 2024). Social isolation is a risk factor for suicidal thoughts, which aligns with the Interpersonal Theory of Suicide, which proposes thwarted belongingness encompassing social connectedness, and a need to belong (Veresova et al., 2024). Social support can reduce suicidal thoughts and highlight the importance of improving the system to prevent suicide and promote mental health among the higher-risk group 15-29 (Vu et al., 2025).

2.4.1.4 Alcohol and substance abuse

According to the WHO, behaviours such as smoking and drinking alcohol may lead to non-communicable diseases (NCDs) among youth, who start smoking at the age of 23-24 (Xiang et al., 2025). In addition, male students have a higher level of drinking, smoking, unprotected sexual intercourse, verbal violence, and emotional neglect, with lower levels of physical

inactivity, unhealthy diet, and sedentary behaviours. Daily smokers were found to have a higher level of suicidal ideation and past suicide attempts (Waters et al., 2021). Personal life difficulties, including relationship breakups, bereavement, prior self-harm or suicide attempt, were additional factors to suicidality (Kakir et al., 2024). Mamun et al. (2024) state that higher education institutions, public health agencies, and policymakers must implement health support and substance use prevention programmes for university students. These can be achieved through mental health education, resource provision, and enforcement of regulations to promote healthier coping strategies and reduce substance use, and counselling networks (Song & Jung, 2025).

2.4.1.5 Academic issues

College students exhibit academic underachievement, and dissatisfaction with the course predisposes them to psychological distress (Altavini et al., 2023). Negative perfectionism was identified as a risk factor for suicidal ideation, marking academic failure as the most typical trigger among students (Wang et al., 2024). Higher levels of academic procrastination were associated with greater academic anxiety (Hamdan-Mansour et al., 2024). Undergraduate students at universities face significant levels of stress, in the form of academic workloads, poverty, peer pressure, and separation from families, which risk suicidal behaviours (Salifu et al., 2024). Academic interruptions, such as suspension or repeating a year, were associated with an elevated risk of mortality among final-year Japanese students (Saeed et al., 2024). Conflict between the student and the lecturer, inadequate institutional support, stress from a heavy academic workload, and income insecurity were identified as risks for suicidal behaviours (Cecchin et al., 2024).

2.4.1.6 Exposure to traumatic events

Traumatic events cause an individual pain throughout their lifetime. Post-traumatic stress disorder (PTSD) is a well-established factor in suicidal ideation and behaviours (Woller et al., 2025). Furthermore, in Brazil, adverse childhood experiences such as sexual abuse, physical abuse, and emotional abuse have been associated with suicidal attempts (Lira et al., 2022). Suicide risk factors displayed trends indicating low trauma, high physical abuse, high death/serious injuries of a loved one, and multiple traumas (Shi et al., 2024). Earthquake trauma has a strong correlation with numerous psychological impact that directly leads to symptoms of depression, peritraumatic dissociation, and experiential avoidance, which may

lead to suicidal behaviours (Ahmadi et al., 2024). Awareness of trauma among students will give a comprehensive understanding of suicide risk, and suicide prevention will be successful if the campuses are fully prepared to engage in suicide prevention strategies (Lira et al., 2022).

2.4.1.7 Family history of suicide and suicidal behaviours

It is imperative to underscore that a family history of suicidal behaviour may lead to a form of learning through imitation (Buitrago et al., 2024). Adolescents' exposure to media characters that portray suicide videos, reporting nonfiction and fictional media, increases the risk factor for imitative suicides (Clayton et al., 2023). Suicide contagion is defined as an increase in suicidal behaviours due to exposure to suicide within the family, peer groups, or through media reports. With such significant suicide rates and reports, it predisposes the vulnerable person to suicide and suicidal behaviours (Walling, 2021).

2.4.1.8 Lack of religious involvement

Spirituality and religiosity reduce suicidal thinking, acting as a protective factor. Religions can play a proactive role against suicidal behaviour that varies across countries and cultures. Cultivating spiritual or religious life can be a suitable and complementary way to prevent suicidal behaviours (Euseche et al., 2025). It is important to create awareness of the relationship between religion and suicide risk because this helps with suicide prevention (Poorolajal et al., 2022).

2.5 COPING STRATEGIES FOR UNDERGRADUATES EXPERIENCING SUICIDAL IDEATION

Coping is conceptualised as a conscious and purposeful process through which individuals employ cognitive and behavioural strategies to manage, tolerate, or reduce the impact of stressful life events. Effective coping is closely associated with a sense of belonging and access to social support; in their absence, individuals experience increased vulnerability to psychological distress and diminished capacity to manage life challenges and setbacks (Ndeti et al., 2025). Empirical evidence further indicates that inadequate social support, limited sense of belonging, and poor coping and problem-solving skills significantly increase the risk of suicidal ideation among students (Okechukwu et al., 2024).

Although moderate levels of academic stress may be associated with only mild suicidal ideation due to the buffering effects of resilience and adaptive coping strategies, highly

competitive academic environments may exacerbate psychological strain, leading some students to adopt maladaptive coping mechanisms such as substance use (Mahendru, 2024). These findings underscore the critical role of higher education institutions in strengthening student resilience through structured psychosocial support interventions. Accordingly, university administrators, policymakers, lecturers, teachers, and tutors should integrate resilience-building programmes and practical coping-skills training into institutional curricula to promote students' psychological well-being and reduce vulnerability to suicidal ideation (Okechukwu et al., 2024)

At NUST, student health services are limited to one student counsellor (a social worker) and two nurses serving a large student population. In contrast, at the UNAM main campus, two nurses, two student counsellors, and a psychologist were employed. Only one student counsellor is assigned to the Hage Geingob campus. Eenhana campus does not have a qualified mental health professional to provide psychological support for the students. The ideal student-to-counsellor ratio recommended by the American School Counsellor Association ASCA is 250:1, but in practice, most institutions exceed this (Brown & Knight, 2025; Strear et al., 2021). This imbalance underscores that service delivery is compromised, which leads to student neglect, potentially escalating mild to severe depression and suicidal ideation. Some students avoid counselling services because of stigma, family and religious beliefs, coupled with cultural and racial factors. Negative experience with formal counselling, difficulty connecting with the therapist, and certain environmental factors were noted as barriers to seeking mental health care (Osborn et al., 2022).

2.6 SUICIDE PREVENTIVE STRATEGIES

The United Nations Sustainable Development Goal (SDG)-3 is "Ensure healthy lives promote well-being for all at all ages and SDG 3.4 states that "By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment (Borah et al., 2024). The prevalence of suicidality among people aged 10-20 years in the USA has increased by 56% over the past decade, with black youth having the highest increase by 78% (Ajuni & Amarasinghe, 2024). Culturally contextualise suicide preventative strategies for international students (McKay & Meza, 2024). Suicidal thoughts and behaviours are more prevalent among international students who have transitioned from their primary country of residence to pursue education elsewhere. These students face lots of challenges, such as language barriers,

cultural adjustment, financial stress, and academic pressure that negatively impact their mental health (Veresova et al., 2024).

A suicide prevention program was established to equip teachers and lecturers with the confidence and skills to conduct suicide risk assessment (Borah et al., 2024). America came up with a brilliant approach (The AAP-AACAP-CHAD) declaration of National Emergency in Child and Adolescent Mental Health, which is a joint statement by the American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry, and the Children's Hospital Association, which handles mental health crisis (Ajluni & Amarasinghe, 2024).

2.7 MENTAL HEALTH PROVISION FOR STUDENTS EXPERINCING SUICIDAL IDEATION

Mental health challenges are highly prevalent among university students, with suicidal ideation ranging between 17% and 35 % globally, leaving the students without adequate institutional support and vulnerable to suicidal ideation (WHO, 2022). In Nigeria, despite the higher prevalence of mental health issues, underfunding mental health care can mitigate the risk of suicide among this vulnerable demographic (Eyisi et al., 2025). Universities must rethink and revamp mental health crisis services, including adequate staffing, a dedicated mental health unit, after-hours call-in lines, local crisis response teams, and hospital referrals (Baumhauer et al., 2025). Collaboration with lecturers, health practitioners, and school counsellors positively improves the students' coping strategies and resilience-building techniques to manage academic stress and suicidal ideation (Fadipe et al., 2025).

2.8 GLOBAL CONTEXT OF EARLY DETECTION OF MENTAL HEALTH CONDITIONS AMONG UNIVERSITY STUDENTS

Anxiety, depression, and suicidal ideation are prevalent among university students. Nevertheless, little is known about screening tools for early detection and identification of students experiencing these conditions (Macalli et al., 2021). Early detection of mental health conditions is crucial for timely interventions and improved outcomes (Mansoor & Ansari, 2024). According to Kim et al. (2022), the mild symptoms of mental health conditions are common during adolescence and might not be noticed for intervention. On the contrary, the mild symptoms evolve into mental illness, a risk factor for suicidal ideation.

The model by Mansoor and Ansari (2024) is an artificial intelligence (AI) that demonstrated 89% accuracy in the early detection of mental illness using a social media network (7 days before a mental health crisis). The recent studies in the US employed AI tools for automated

detection of depression and or anxiety disorder, which produced positive results and could overcome the limitations of traditional diagnostic methods (Barua et al., 2024). Concurrently, these AI tools have the limitation of suicidal ideation. Thus, the facial features, speech signals, and visual and clinical history may pave the way for the identification of individuals with suicidal thoughts.

In Colombia, early detection and identification of university students is done through universal screening within university settings (Kim et al., 2022). Screening of students at the point of entry to the university may be an approach to identify students with the following factors: growing up with a mother only, alcohol and drug consumption, negative thoughts about oneself, experience of physical abuse, maltreatment, and suicidal thoughts (Cañón Buitrago et al., 2024). Early identification of these students as a buffer protective measure may lead to suicide prevention.

2.9 THEORIES AND MODELS THAT GUIDE THE CURRENT STUDY'S MODEL

Several theories have been tested, and, in this context. The Theory Generation (TG) by Chinn and Kramer (2018) provided the conceptual framework for model development, ensuring that the research process was guided by critical building steps that made this model theoretically sound. The Health Belief Model (Rosenstock, 1974), which was appropriate for individual decision-making in health behaviours, including why students engage or avoid mental health services, grounded this study in perceived risk and benefit and informed the early detection model screening section. The Intra-Professional Shared Decision-Making Model by Legare et al. (2011) was appropriate for a collaborative health-delivery structure, highlighting how professionals share responsibility and decision-making to improve student outcomes, which is relevant to campus health interventions.

2.9.1 Theory Generation by (Chinn & Kramer, 2018)

The theory-generation framework by Chinn and Kramer (2018) was adopted for its unique four phases, which were found to provide a guiding foundation for model development and evaluation by forming systemic connections among concepts drawn from research findings. The unique processes of Chin and Kramer are identifying and analysing concepts, placing concepts in relationships, defining criteria for model description and evaluation, and providing guidelines for implementing the model, as indicated in Figure 1 The theory generation was used during situational analysis to identify and analyse the concept in Phase 1; to

conceptualise a relationship statement in Phase 2; to develop and describe the model's use in Phase 3; and to provide guidelines for the model evaluation and operationalisation.

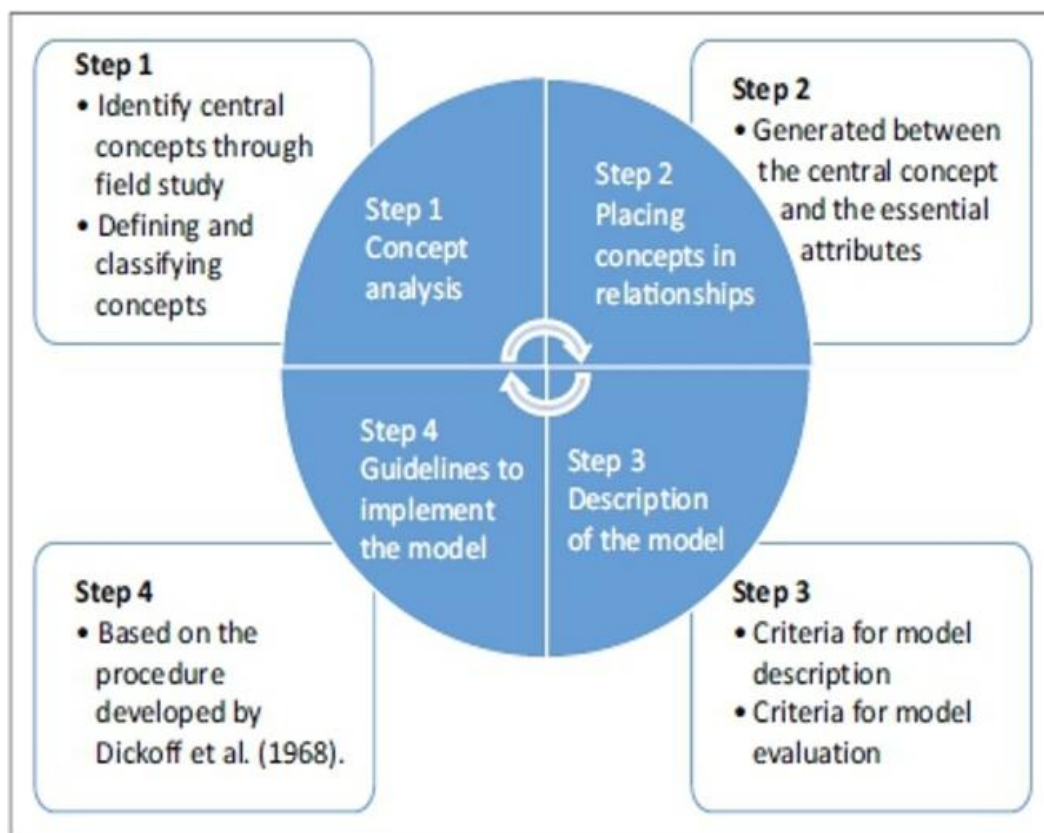


Figure 4: Steps in model development by Chinn and Kramer 2018

According to Figure 4, the model development followed a structural progression from identifying and analysing core concepts to establishing a model description, and finally to formulating implementation guidelines. These theories emphasise theoretical rigor and practical application, ensuring that the conceptual framework leads to effective strategies grounded in the implementation procedures outlined by Dickhoff et al. (1978).

2.9.2 Health Belief Model Rosenstock (1974)

The Health Belief Model (HBM) provides a useful framework for understanding and addressing anxiety, depression, and suicidal ideation (ADSI) in university settings by explaining how students' perceptions influence help-seeking behaviour. Key constructs include perceived

susceptibility and severity, perceived benefits of early intervention and peer support, and perceived barriers such as stigma and cultural beliefs. Cues to action, such as awareness campaigns and self-efficacy, further support students' engagement in seeking help and developing resilience. Together, these constructs guide strategies for early detection and improved mental health outcomes.

2.9.3 Inter-professional Shared Decision-Making IP- SDM Legare et al (2010)

The Interprofessional Shared Decision-Making (IP-SDM) model expands the concept of shared decision-making beyond the traditional patient–practitioner dyad by emphasising collaborative involvement among multiple stakeholders. The IP-SDM theory was appropriate for Phase Two of this study, which focused on model development. Within this framework, a therapeutic team comprising the student, mental health service providers (including nurses, social workers, and counsellors), family members, and, where necessary, medical teams involved in referral processes, plays a critical role in managing anxiety, depression, and suicidal ideation. Through collaborative decision-making, the model supports the delivery of evidence-based mental health care, enhances engagement, and promotes improved recovery outcomes

2.10 THE CONSTRUCT OF THE EARLY DETECTION MODEL

The early detection model for anxiety, depression, and suicidal ideation uses a structured multi-level framework. This framework is designed to systematically identify at-risk university students through routine screening, risk stratification, brief interventions, and referral pathways within public universities. The model includes standardized tools such as PHQ-9 for depression assessment, AGD-7 for anxiety screening, and C-SSRS for suicidal ideation screening. It addresses the public health prevention framework through primary prevention, which involves raising awareness and sharing information; secondary prevention, which focuses on early detection of ADSI among university students; and tertiary prevention, which encompasses treatment for affected students.

2.11 CHAPTER SUMMARY

Chapter Two reviewed relevant literature; however, no studies were identified on the early detection of anxiety, depression, and suicidal ideation (ADSI) among university students. Existing research primarily focuses on patients with mental health conditions and includes

cross-sectional, longitudinal, qualitative, and quantitative designs, with limited use of mixed methods. The literature largely addresses the historical understanding and medical management of anxiety and depression, highlighting multiple contributing factors such as biological influences, lifestyle, personality, genetics, and post-traumatic stress disorder. Suicidal ideation and its associated risk factors, as well as institutional prevention strategies, were also discussed. Additionally, coping mechanisms, global prevalence among university students, and barriers to mental health service delivery were examined. Despite these insights, a significant gap remains: most studies investigate anxiety, depression, and suicidal ideation separately, with no integrated approach or existing model for their early detection within university settings.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter two covered the literature review, which was relevant for this study. In this chapter, the research design and methods used in the development of the model for techniques, including the study instruments and the procedure for data collection, were discussed.

3.2 RESEARCH DESIGN

The research design is a series of decisions the researcher makes about how the study was conducted. The current project employed a mixed-methods convergent parallel design to examine the prevalence of ADSI among undergraduates, explore the coping mechanisms undergraduates use to manage ADSI, and establish the practices of mental health service providers in the early detection and support of undergraduates experiencing ADSI. This design was deliberately selected because it allows the simultaneous collection and analysis of quantitative and qualitative data. Specifically, it enabled the assessment of prevalence, patterns, and relationships within the defined population and generated an in-depth understanding of participants lived experiences. Thus, the integration of both strands strengthened the comprehensiveness and interpretative validity of the findings. ‘

For the quantitative component, a structured questionnaire was used to collect data. Methodological rigor was ensured by employing internationally validated tools, specifically the Patient Health Questionnaire-9 (PHQ-9; Cronbach’s $\alpha = 0.874$), the Generalised Anxiety Disorder-7 (GAD-7; Cronbach’s $\alpha = 0.805$), and the Columbia-Suicide Severity Rating Scale (C-SSRS; Cronbach’s $\alpha = 0.726$). These reliability coefficients demonstrate good internal consistency.

Furthermore, the questionnaire was reviewed by the study supervisors, a statistician, and a psychiatrist to improve content validity, clarity, and contextual relevance. As a result, both statistical reliability and expert validation enhanced the scientific rigor of the quantitative component.

In contrast, the qualitative objective used an exploratory, descriptive contextual design and employed non-probability purposive sampling. This method was suitable because it allowed for the selection of participants with direct experience of ADSI who could offer rich, relevant data. A total of 13 students participated in the qualitative portion, and data collection continued until saturation was reached. As a result, interviews continued until no new themes emerged, thereby improving the credibility and trustworthiness of the findings.

In addition to the student participants, the qualitative components included 11 mental health service providers to examine their practices in the early detection and support of undergraduate students experiencing ADSI. This inclusion was deliberate, allowing the study to gather professional insights on screening procedures, referral pathways, intervention strategies, and institutional support mechanisms. By incorporating these experts' insights, the study enhanced the contextual and practical relevance of its findings.

Methodologically, purposive sampling was employed to recruit mental health professionals, allowing participants to elaborate on existing early detection frameworks, routine screening practices, crisis response protocols, and follow-up support systems. Importantly, this qualitative inquiry provided a deeper understanding of systemic strengths, service gaps, and barriers to the effective early detection of ADSI among the undergraduates. Therefore, thematic analysis was conducted to identify recurring patterns related to screening tools used, interdepartmental collaboration, referral efficiency, stigma-related challenges, and resource limitations.

Integrating perspectives from both students and mental health providers improved triangulation in the convergent parallel design. As a result, the study compared reported coping mechanisms with institutional support practices, which strengthened the credibility and interpretive validity of the findings.

3.2.1 Theory generation design

Theory generation is a dynamic process that organises ideas into systemic models (Chinn & Kramer, 2018). In this study, the process followed a systematic analytical procedure to ensure the model was grounded in empirical evidence. According to this approach, theory development involves establishing significant relationships among constructs, interpreting these relationships, using a conceptual framework, and formulating an explanatory EDM.

In this study, Phase 1, quantitative data were analysed to identify significant relationships among key variables, particularly the effects of academic pressure, social support systems, and institutional barriers. These findings provided an empirical foundation for pinpointing the main factors influencing student mental health outcomes.

Secondly, qualitative data from participant interviews were analysed using thematic analysis. This process involved becoming familiar with the data, coding important segments, and grouping related codes into broad themes that reflect students' experiences of emotional distress, academic pressure, social support systems, and institutional challenges.

Following these analyses, a comprehensive phase was conducted to integrate findings from both quantitative and qualitative data. The relationships and complementarities between these datasets were examined to develop broader conceptual categories. These categories served as a basis for creating theories about how academic stressors, social support networks, and institutional frameworks together influence student mental health outcomes.

3.2.2 Mixed-methods approach

A mixed-methods approach using a convergent parallel design was employed, combining an exploratory, descriptive, cross-sectional quantitative component with a qualitative strand to refine the model. Quantitative and qualitative data were collected concurrently, analysed separately, and then integrated during the interpretation phase. In this design, the quantitative component used a descriptive cross-sectional approach to assess the prevalence and predictors of anxiety, depression, and suicidal ideation (ADSI) among undergraduate students at two public universities in Namibia, specifically the Namibia University of Science and Technology (NUST) and the University of Namibia (UNAM).

The NUST main campus in the Khomas region and the Eenhana campus in the Ohangwena region were needed in full. This was because they were the only NUST campuses at the time of the study. Therefore, the total population sampling was applied to NUST. In contrast, a systematic simple random sampling method was used to select campuses from UNAM. A systematic sampling technique was used to select campuses from the 12 eligible campuses. The campuses were first arranged in a sampling frame, after which a random starting point was identified. Following this, every third campus was selected according to a predetermined sampling interval until the desired number of campuses was reached. The use of a random

start minimised selection bias and ensured that campus selection remained probabilistic and representative. As a result, UNAM campuses included in this study were the UNAM Main campus and Hage Geingob campus in the Khomas region (Central), the Southern campus in the Karas region (South), and the Oshakati campus in the Oshana region (North).

3.2.3 Descriptive design

The researcher is obligated to provide accurate, transparent, and unbiased accounts of study findings. Accordingly, a descriptive-analytic approach was employed to statistically examine and report the observed patterns in the data. A descriptive method aims to identify and summarise the factual characteristics of the phenomenon under investigation without manipulating variables.

In the quantitative strand, additional inferential statistical analyses were conducted to determine not only the prevalence but also the predictors of anxiety, depression, and suicidal ideation among students at the Namibian public university. Specifically, measures of central tendency and dispersion were computed to describe the sample characteristics, and bivariate and multivariate analyses were conducted to examine relationships among variables.

Importantly, statistical significance was determined at the $p < 0.05$ threshold. This level was selected to minimise the probability of Type I error, thereby strengthening the reliability of the findings. Furthermore, appropriate statistical tests were selected based on the variables' measurement levels and distributions, ensuring methodological appropriateness and analytical rigor. Potential confounding variables were controlled for during multivariate analysis to enhance internal validity. Assumptions underlying the statistical procedures were assessed prior to analysis to ensure compliance with methodological standards. Consequently, the associations identified were not only statistically significant but also analytically justified. Details of these analyses are presented in Chapter Four of this study.

3.2.4 Cross-sectional design

A cross-sectional design was selected because the data were collected at a single point in time to examine the current state of student mental health and to determine the prevalence and predictors of ADSI. Specifically, this design enabled the simultaneous measurement of exposure and outcome variables within the study populations, thereby allowing for the identification of statistically significant associations.

Methodologically, the cross-sectional approach was appropriate for estimating prevalence rates, as it provides a snapshot of the distribution of mental health conditions within the defined population. Furthermore, the design facilitated hypothesis testing through inferential statistical analyses, enabling the examination of the relationship between independent and dependent variables. In addition, cross-sectional studies are cost-effective and time-efficient, as data are collected at a single point without the need for follow-up. This reduces attrition bias and enhances feasibility within the study's institutional context.

To ensure scientific rigor, validated measurement instruments were employed, appropriate statistical tests were selected based on the variables' characteristics, and the level of significance was set at $p < 0.05$ to minimise type 1 error. Furthermore, assumptions underlying inferential statistics were assessed prior to hypothesis testing to ensure analysis validity.

3.2.5 Qualitative design

Qualitative design refers to the systematic collection and interpretation of non-numerical data, such as narrative counts, to gain insight into the phenomenon under investigation (Creswell, 2028). Fundamentally, qualitative inquiry seeks to express thought through in-depth engagement and interviews. In this study, a qualitative component was necessary to explore how students cope with ADSI and to examine mental health service providers' practices of early detection and support for students experiencing ADSI.

An exploratory descriptive approach was employed to gain deeper insight. A qualitative design, grounded in a descriptive approach, was employed to gain insight into and deepen understanding of the lived experiences of students with ADSI. This design was appropriate, as there was limited contextual research on ADSI within Namibian public universities. Accordingly, the exploratory framework allowed for flexibility, openness, and in-depth probing of participants' perspectives. Furthermore, the design enabled the examination of institutional practices by mental health service providers regarding early detection, referral pathways, and support mechanisms. By incorporating both student and provider perspectives, the study enhanced data triangulation and contextual depth.

Due to geographical dispersion, some undergraduate participants from the Southern Campus, Hage Geingob Campus, and Oshakati Campus were interviewed telephonically. Similarly, mental health service providers from the Oshakati and Southern Campuses were interviewed

via telephone. Participants were scheduled in advance and interviewed at times convenient to them to ensure ethical considerations and voluntary participation.

Telephonic interviews were deemed methodologically appropriate, particularly where in-person access was limited. Importantly, telephonic interviewing has been validated as a credible qualitative data collection method in prior research (Farooq & Devilliers, 2017; Block & Erskine, 2021). Moreover, it reduces geographical barriers, enhances participant convenience, and can facilitate openness when discussing sensitive topics such as mental health.

To ensure qualitative rigor, interviews were guided by a semi-structured interview schedule, audio-recorded with consent, and transcribed verbatim. Data were analysed thematically to identify recurring patterns and meanings. Credibility was enhanced through prolonged engagement with the data and iterative coding. Dependability was strengthened by maintaining an audit trail of analytical decisions. Confirmability was ensured through reflexive consideration of researcher bias, while transferability was supported by providing rich, contextual descriptions of participants and settings.

3.2.6 Contextual design

Contextual design involves considering the natural environment in which data are gathered, interpreted, and analysed to understand how individuals live, work, and function in real-life settings. This approach recognises that human behaviour, experiences, and decision-making processes are shaped by the social, institutional, and cultural contexts in which they occur.

Rather than isolating variables from their real-world contexts, a contextual approach examines behaviours, tasks, and lived experiences within the environments in which they naturally unfold. Accordingly, this study was conducted within the institutional settings of public universities in Namibia, where students experience academic, social, and psychological demands that may influence ADSI. By situating the investigation within these natural university environments, the study captured both students' coping experiences and institutional mental health practices as they unfolded. Thus, the contextual design enhanced ecological validity and strengthened the relevance and applicability of the findings.

Table 2: Research design table

Objectives	Methodology
Objective 1: Investigate the prevalence and predictors of ADSI among undergraduate students at public universities in Namibia.	Approach: Quantitative Design: cross-sectional survey Population: undergraduate students aged 18-25 from two public universities. Sample (n= 783)., random sapling methods Tool: Questionnaire Validity: content, internal, face, and expert validity. Reliability: the tool was pilot tested, standardised, and validated. The Cronbach alpha was tested. Analysis: Descriptive, bivariate, and multivariate inferential statistics using IBM SPSS version 30.
Objective 2: To explore how undergraduates cope with anxiety, depression and suicidal Ideation	Approach: Qualitative, exploratory, descriptive, contextual Population: Undergraduate students (18-24) Sampling: Purposively selected known students experiencing ADSI. Tool: Interview guide, audio recorders, and field notes. A total of 13 participants were interviewed. Analysis: Thematic analysis, Atlas ti. Version 8 Trustworthiness: credibility, transferability, confirmability, and dependability
Objective 3: To establish the practices of the service providers for early identification of university students exhibiting ADSI	Approach: Qualitative, Exploratory, and descriptive contextual Population: Students, counsellors, nurses, and support persons Sampling: Total sampling, all inclusive (n=11) (student counsellors 7 Nurses =3; support system =2] Tool: Interview guide, audio recorder, and field notes Analysis: Thematic analysis ATLAS.ti version 8 Trustworthiness: Credibility, transferability, confirmability, and dependability
Objective 4: Develop, describe, and evaluate the usability of the model	Screening tool pilot-tested among students. The model was presented to mental health experts and found to have merit.

3.3 REASONING STRATEGIES

Understanding the research's underpinnings is important as it directly impacts the methodology used. The fundamental assumptions and beliefs underpinning the study are philosophical and shape the research questions, methods, and interpretation.

- Deductive reasoning

Deductive reasoning is a relevant strategy in quantitative research, in which theory is tested, and the researcher predicts results (Creswell & Plano, 2018). In a deductive analysis, the researcher aims to determine whether the findings are consistent with the researcher's preconceptions, theory, and hypothesis (Haque, 2022). This strategy was used during the quantitative phase 1 of this study to identify variables, translate them into hypotheses or questions, and test whether the theory is supported or refuted. The findings served as building blocks for developing a model to early-identify university students experiencing ADSI.

- Inductive reasoning

Inductive reasoning is employed in qualitative research to explain study findings (Creswell & Plano, 2018). Inductive reasoning aims to develop a theory, whereas deductive reasoning tests an existing theory (Kumar & Ujire, 2024). Inductive reasoning starts with observation and proceeds to exploration and discovery. In this thesis, the researcher identified a gap in mental health care services for students, prompting the collection of qualitative data relevant to the research topic. Inductive reasoning was used during face-to-face interviews with the 11 mental health service providers and the 13 undergraduates experiencing ADSI. The researcher reviewed the collected data to generate patterns, themes, and codes, which were analysed using Braun & Clarke's inductive thematic analysis in ATLAS.ti Version 8.

- Inferences

Making inferences entails identifying information not explicitly provided in the text and filling semantic gaps (Güneş, 2023). This study combined quantitative and qualitative methods in Phase 1 (situational analysis). Inferences were drawn from the concepts developed during the collection phase (nurses, social workers, student counsellors, and undergraduate students). Conclusions were drawn from these concepts.

- Synthesis

Synthesis means combining two or more items to produce a theory. This study employed mixed methods reviews to provide the strongest evidence for practice, research, and policymaking (Younas et al., 2021). In addition, a joint display of quantitative and qualitative data in Phase 1 included a situational analysis (a quantitative inquiry to establish the prevalence of ADSI) and a qualitative inquiry into students' coping mechanisms affected by

ADSI. Quantitative and qualitative data were analysed separately. The synthesised findings were integrated to provide coherent scientific evidence for the study's results.

- Bracketing

During phenomenological inquiry, the researcher temporarily set aside personal biases and assumptions and remained objective. The challenge is to allow researchers' subjective voices to emerge during face-to-face interviews, grounded in their personal experiences. Bracketing begins in the early stages of research design, data collection, data analysis, and interpretation, and continues through the final report of the study inquiry (Bendall, 2006). Abraham (2025) recommends that the researcher enhance methodological transparency to facilitate a rigorous evaluation and to improve the study's inquiry. The bracketing process was employed in this thesis during the interview, where the researcher remained as neutral as possible. Open-ended questions were used for the service providers and the students to share their experiences of mental health conditions. Participant voices were recorded and transcribed verbatim.

3.4 THEORY GENERATING RESEARCH METHOD

According to Chinn and Krammer (2018), theory generation was adopted in this study to develop an EDM to identify undergraduates at the NUST and UNAM campuses and to establish prevalence and predictors, including coping mechanisms. A conceptual framework was developed and served as the building blocks for model development. The theory generation of Chinn & Krammer (2018) was applied in the following sequence:

Phase 1: Concept analysis, where the concepts were identified, defined, and classified.

- Phase 2: construction of the relationship statement.
- Description of the structure, the process, and the evaluation of the model.
- Phase 4: formulation of the guideline for operationalisation of the model.

The research methods for this design included the researcher's approach to data collection, analysis, and interpretation. This will ensure the reliability of the collected data, thereby generating a solution to the targeted enquiry.

Phase 1 Concept analysis

Phase 1 of model development concentrated on identifying key concepts emerging from the empirical data. Using statistical analysis and thematic interpretation, several core ideas were identified, including academic pressure, emotional distress, social support, institutional support, and access to mental health services. These ideas represented the main factors influencing ADSI among undergraduate students.

Phase 2: Construction of the relationship statement

In Phase 2, these identified concepts were analysed to understand their relationships and interactions. Following the theory-generation procedures proposed by Chin and Kramer (2018), relational statements were developed to describe how these concepts interact within the context of student mental health. For example, academic pressure was recognised as a primary stressor that impacts emotional distress, while social support was identified as a moderating factor that can lessen the negative effects of academic stress. Institutional support was also shown to influence students' ability to access mental health resources.

These relational statements formed the conceptual foundation for the development of the EDM model, which illustrates the structural relationships among the identified constructs

Phase 4: Model development, description, and evaluation

These three phases focused on developing, describing, and evaluating the model, based on the outcomes of Phases 1 and 2. This phase integrates the study stage, in which the concepts identified in Phase 1 and the relational statements formulated there are synthesised into a coherent conceptual framework.

Firstly, this phase involves developing the model. During this stage, the key concepts and their relationships were organised into a structured framework that explains how the identified factors interact to influence ADSI among undergraduates. The model was constructed to illustrate the relationship between academic stressors, social support, institutional conditions, and student mental health outcomes.

The next step involved describing the model. In this stage, each component was explained to clarify its role within the overall framework. This description helps readers understand how the model's elements work together to explain the experiences of students facing academic and emotional challenges.

The final step in this phase was evaluating the model. The review aimed to ensure it clearly reflects the study's findings and offers a meaningful explanation of the relationships identified in the data. This evaluation confirmed that the model is both conceptually sound and relevant for understanding ADSI among undergraduate students. Through this process, phase 3 integrated the study's findings into a current model that provides a clearer understanding of factors, including mental health, in the university setting.

3.4.1.1 Objective 1: To establish the prevalence and predictors of ADSI among the undergraduate students in Namibia.

Population

According to Chinn and Krammer (2018), theory generation was used to develop a model for the early detection of students experiencing ADSI, along with a conceptual framework that served as the building blocks for EDM. The theory generation was carried out in the following sequence:

Eligibility criteria

- Inclusion

All undergraduates within the target age brackets from the participating campuses who gave informed consent to participate in this study.

- Exclusion criteria

Participants who refused to participate, were unfit to participate, or had already completed the questionnaire on a different date were excluded.

Sampling method

The study used a mixed sampling strategy, including both probability and non-probability sampling. UNAM and NUST are the only two public universities in Namibia. The two NUST campuses, namely, the NUST main campus and the Eenhana campus, were totally sampled because they represent NUST sites nationwide. For UNAM, a systematic, simple random sampling method was used. A systematic sampling technique was used to select campuses from the 12 eligible campuses. The campuses were first arranged in a sampling frame, after which a random starting point was identified. Following this, every 3rd campus was selected according to a predetermined sampling interval until the desired number of campuses was reached. The use of a random start minimised selection bias and ensured that campus

selection remained probabilistic and representative. This yielded four UNAM campuses: the main campus and Hage Geingob (Komas region, Central), the Southern campus (//Karas region, South), and the Oshakati campus (Oshana region, North). To test the research hypotheses, a structured, self-administered questionnaires were distributed to 790 participants. The calculated minimum required sample size for the study was $n = 783$. Participants were recruited randomly, over a two-month period. The study achieved a response rate of 680 (85%). The final sample, yielding 578 completed questionnaires, was used for analysis, and from which the study findings were derived. *The sample size was determined using Yamane's formula (1973), expressed as $n=N/(1+N(e)^2)$, where N represents the population size and e denotes the margin of error, set at 0.05 (Chaokromthong & Sintao, 2021).* Estimated UNAM Undergraduate Students

$$n=(28,861)/(1+28,861 \cdot (0.05)^2)$$

$$n=(28,861)/(1+28,861 \cdot 0.0025)$$

$$n=(28,861)/(1+72.1)$$

$$n=(28,861)/73.1$$

$$n=395$$

- Estimated NUST Undergraduate Students

$$n=(13,000)/(1+13,000 \cdot (0.05)^2)$$

$$n=(13,000)/(1+13,000 \cdot 0.0025)$$

$$n=(13,000)/(1+32.5)$$

$$n=(13,000)/33.5$$

$$n=388$$

Data collection and procedures

A self-administered questionnaire was used to collect quantitative data. The questionnaire consisted of closed-ended items divided into three sections. Sections A (demographic information of the participants), B (Predictors of ADSI), and C (prevalence of ADSI) used the GAD-7 for anxiety screening and the PHQ-9 for depression screening. And suicidal ideation

drawn from the Columbia-Suicide Severity Rating Scale (C-SSRS) Version (2008). Permission to use those validated tools is included in Appendix 9.

Upon obtaining permission approval from the Ministry of Health and Social Services (MoHSS), NUST, and UNAM main campuses, and further permission to collect data from the participating campuses, the fieldwork was conducted. Data were collected by having respondents complete the questionnaires at their campuses and hand them over to the researcher. During the data cleaning stage, the researcher excluded copies of incomplete questionnaires and entered the completed ones into SPSS. A total of five hundred seventy-eight (578) data points were entered into IBM SPSS version 30 for analysis.

Data analysis

Data were imported into IBM SPSS version 30. Descriptive data analysis summarised the demographic data and the prevalence of ADSI, expressed as frequencies and percentages. Furthermore, this analysis provided a clear profile of the sample and quantified ADSI among the students, thereby enabling interpretation of the predictors' outcomes. Bivariate Regression examined the relationships among the independent variable, predictors, and outcome variables. To assess the linearity of the relationship between continuous variables, Pearson's correlation coefficient was used. Hierarchical multiple regression was conducted to examine the outcome variables as a function of multiple ADSI predictors, and a decision-making analysis was conducted to predict ADSI.

3.4.3.3 Objective 2: To explore the coping mechanisms students use to deal with ADSI

Study design

A qualitative, exploratory, descriptive, and contextual research approach enabled the researcher to gain in-depth insights into the coping mechanisms students use to address anxiety, depression, and suicidal ideation (ADSI). Using purposive sampling, data were collected through in-depth face-to-face and telephonic interviews with undergraduate students who presented at the health facility with symptoms of ADSI. In addition, participants who had previously been diagnosed with and were receiving treatment for mental health conditions were included. The purpose was to explore how undergraduates cope with ADSI. Through this approach, participants shared their voices of resilience and described strategies they use to manage these mental health challenges. Due to Namibia's diverse geography and accessibility constraints, some participants were interviewed by telephone.

Population

The participants comprised undergraduate students aged 18–24 from the UNAM and the NUST, the two public universities in Namibia. The participants who were experiencing ADSI were asked to share their lived experience of how they cope with their specific mental health problems. The study was conducted at NUST and UNAM campuses in four regions of Namibia: NUST's Main and Eenhana satellite campuses were purposively selected as the only two campuses countrywide, and UNAM's Main, Hange Geingob, Southern, and Oshakati campuses were selected through a simple random sampling framework of its 12 campuses countrywide.

Sampling method

Purposive sampling was used to recruit respondents for this objective. The researcher approached the services provider to provide the list of students who were known to experience mental health conditions. The participants in this sub-objective were intentionally selected because the researcher needed information to explore the coping mechanisms for how they handle their mental health conditions. Data collection continued until the 13th participant, at which point saturation was reached; data collection ceased. The inclusion criteria were undergraduate students aged 18-24 who were willing to participate, provide informed consent, and were currently experiencing ADSI.

Data collection instruments

The data collection instrument was a semi-structured interview guide used to collect qualitative data through face-to-face and telephonic interviews lasting 30-40 minutes. The sequence of data collection included 1) welcoming the participant and introducing the study; 2) the study aim, ground rules, and rights of the participant; 3) obtaining informed consent; 4) building a trusting relationship and harmony; 5) introducing the main question and discussion during data collection. The interview guide allowed probing to explore participants' experiences with anxiety, depression, and suicidal ideation (ADSI).

Field notes were taken during face-to-face sessions to document behaviours and emotional responses, enriching the qualitative analysis (Crozier et al., 2024). Respondents were briefed on the use of audio recording, and all consented.

Audio recordings were used to record the interviews, which were later transcribed verbatim. The data were stored securely on a password-protected device and subsequently analysed

using Braun & Clarke's Thematic Analysis framework and ATLAS.ti version 8. Interviews were conducted at NUST clinics and in private rooms at Eenhana campus to uphold ethical standards. The combination of audio recordings, field notes, and transcriptions ensured a robust, ethically sound data-collection approach.

Data analysis

Once data collection concluded, the researcher re-examined the data to verify its accuracy and comprehension. This process was applied to qualitative objectives. The qualitative data were analysed using thematic analysis as outlined by Braun & Clarke (2019). This method offered a structured process for detecting patterns in the data and generating conceptual insights pertinent to the study.

The analysis commenced with data familiarisation, during which interview transcripts were reviewed to acquire a comprehensive understanding of participants' experiences. Subsequently, the initial coding phase involved annotating significant segments of the data that encapsulated essential aspects of students' mental health experiences.

During the third stage, related codes were systematically clustered to establish categories, thereby facilitating the identification of overarching patterns within the data. These categories were then meticulously refined into themes that embody conceptual constructs, including academic pressure, emotional distress, social support, and institutional support.

In the fourth stage, each concept was explicitly delineated based on the meanings articulated by participants in the transcripts. This procedure guaranteed conceptual clarity and facilitated the establishment of theoretical relationships among the identified constructs.

The final step involved creating relational statements. These statements were developed by analysing how the identified concepts interact to influence early detection of ADSI. For example, academic pressure was recognised as a factor affecting emotional distress, while social support was seen as a moderating factor that could lessen the impact of stress on student mental health. These relational statements laid the groundwork for developing the EDM model.

- 3.4.3.4 Objective 3: To establish the practices of mental health providers in the early detection of undergraduates experiencing ADSI

Population

The population for this objective comprised mental health service providers (student counsellors, nurses, and support staff from the participating campuses). Respondents shared their practices in mental health provision, early detection, and support for undergraduates.

Sampling method

Non-probability purposive sampling was used to select mental health service providers. Sampling is the selection of a subset of the population to obtain information about the phenomenon under investigation (Omair, 2025). For this group, an all-inclusive sampling method was applied. A total of 11 mental health service providers, 4 from NUST and 7 UNAM campuses, were interviewed to describe their practices for early identification of students experiencing ADSI.

Data collection methods and procedures

A face-to-face semi-structured interview guide structured in English language was used to collect data. The data were collected between April 2025 and June 2025. The use of in-depth interviews increased the study's credibility and strengthened its triangulation of findings. To preserve the authenticity of participants' narratives, all interviews were audio-recorded and transcribed verbatim, ensuring accurate representation of the data (Rutakumwa et al., 2020).

Owing to the busy schedules of mental healthcare service providers, participants were booked and allocated a time most suitable to them before data collection, which was conducted at a time most convenient to them. Informed consent was obtained from the informants before data collection. The researcher explained ethical protocols, including confidentiality, anonymity, audio recordings, privacy, beneficence, and non-maleficence. The interview session was conducted at their workplaces and lasted 30 to 40 minutes. Service providers were interviewed and described their roles in the early detection of students experiencing ADSI. The interviews were audio-recorded with the informant's permission. Field notes were used, supplemented by audio recordings, which were stored in a secure device protected by a password.

3.4.2 Phase 2 construction of the relationship statements

According to Chinn and Krammer (2018), there should be a related statement linking the concept to the developed model. This should be used to develop a conceptualisation of the structure that contextualises the model.

Conceptual framework of the study

To develop a conceptual framework, Chinn and Krammer (2018) defined it as a crucial process for generating and constructing ideas following proper analysis. The conceptual framework guided the model's development, as highlighted in Chapter Six of this study, which provided further details on the conceptualisation.

3.4.3 Phase 3 development, description, and evaluation of the model

Clear definition and careful observation play a significant role in the development of the theory (Wacker, 2004). The identified concepts guided the development of the early detection model.

3.4.3.1 Description of the structure of the model

The purpose of the model is to support early identification and intervention for students experiencing ADSI in public universities in Namibia. The model structure established a conceptual relationship. The following criteria for model development were followed:

- Concepts: what are the concepts that formed the model?
- Definition: how was the model defined?
- Relationship: What is the relationship among the concepts within the model?
- Structure: What is the structure of the model?

The model structure is elaborated further in Chapter Six of this study.

3.4.3.2 Evaluation of the model

Model evaluation was conducted in accordance with Fawcett's (2005) procedures, using the four criteria to evaluate the nursing theory and conceptual models. Fawcett's model evaluation procedure outlines five primary criteria for evaluating nursing models:

Significance

- Did the model address the important phenomena?
- Is the model relevant to practice
- Did it contribute to the body of knowledge?

Internal consistency

- Are the concepts clearly defined and logically located?
- Is the theory free from contradictions?
- Did the assumptions proposition defined correctly?

Parsimony

- Is the theory simple without being oversimplified?
- Does it explain the phenomena with the fewest relevant concepts and assumptions?
- Does the theory avoid unnecessary complexity?

Testability

- Can the theory be empirically tested
- Are the concepts measurable and operationalised
- Does it generate a hypothesis that can be examined through research?

Empirical adequacy

- Does the evidence support the theory?
- Are the propositions validated through observation and research findings?
- Does it withstand empirical scrutiny?

Pragmatic adequacy

- Can the theory guide nursing practices, education, and research?
- Does it provide practical direction for interventions?
- Is it adaptable to different settings?

3.4.4 Phase 4 Guidelines for the operationalisation of the model

After the model was evaluated, the guidelines for its use were developed. This guide provides agents with practical guidance on using the model in a real-world setting. The guideline is discussed in Chapter Seven.

3.5 METHODOLOGICAL INTEGRATION OF THE STUDY

The study design is summarised in the table below. The figure below shows the triangulation of the study methodology.

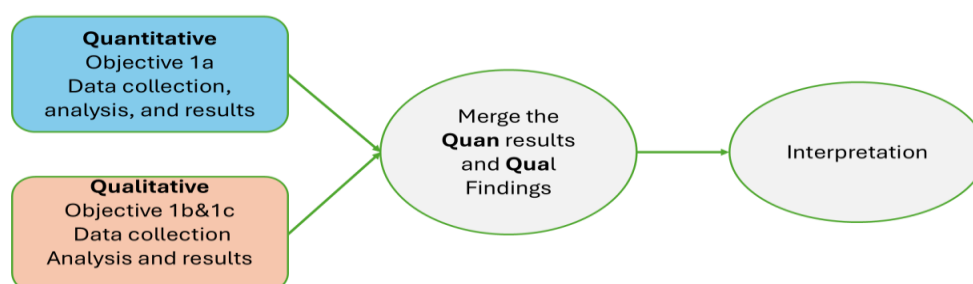


Figure 5: Flowchart illustrating the methodological convergent design by Creswell 2018

This flowchart presents the processes for the mixed-methods, qualitative, and quantitative convergent parallel design used in this study Figure 9. Data were collected concurrently, analysed separately, then merged and interpreted, yielding the concepts used for model development. To draw a scientifically sound conclusion, a mixed-methods approach was adopted; however, each method has specific limitations in addressing the study's objectives. With the supervisors' assistance, the mixed-methods approach led to the development of the Early Detection Model to identify ADSI among undergraduates. Although this design had shortcomings in integrating qualitative and quantitative methods, the study supervisor's expertise was instrumental in addressing them.

Pilot study

The pilot study was conducted at UNAM Khomasdal Campus, specifically because this campus was excluded from the study population to pre-test the appropriateness of the research

instruments and interview guide, thereby ensuring alignment with the study methodology and protocols (Kunselman, 2024). A total of eleven undergraduate students aged 18–24 participated. The data were analysed using SPSS Version 29. Their feedback led to revisions to the questionnaire, including more precise phrasing and the removal of ambiguous or irrelevant items. Quantitative results revealed high levels of academic stress and notable frequencies of anxiety, depression, and suicidal ideation, with 27% reporting active suicidal thoughts. Technical adjustments were made to improve clarity and demographic relevance, including modifying age brackets, removing religious questions, and refining academic-year categories. The study supervisors, statistician, and psychiatrist reviewed the revised tool for comprehensiveness and found it reliable for data collection to achieve the study's objectives.

3.6 MEASURE TO ENSURE VALIDITY AND RELIABILITY

Reliability is a measure of the quality of a measurement, indicating that other researchers would expect similar results if the study were conducted in the same manner, or that the original study would yield the same result if repeated. (Roberts & Priest, 2006) In this study, Cronbach's alpha (a correlation coefficient) was calculated to assess the tool's reliability (internal consistency) and to determine the degree of inter-item correlation. Data-collector bias was minimised by having the researcher self-administer and collect the data.

Validity

The study ensured instrument validity and reliability through several procedures (Estremera et al., 2024). First, face validity was assessed by presenting the questionnaire to experts in mental health and research methodology to evaluate the clarity, relevance, and appropriateness of the items with respect to the study objectives. Their feedback informed minor improvements or wording and structure of the instrument.

Content validity was established by aligning the questionnaire items with the key constructs of the study, namely, anxiety, depression, and suicidal ideation as their predictors. This instrument was developed based on literature and validated screening tools used in mental health research. Subject experts reviewed the instrument to ensure that the items adequately represent the domain under investigation.

Regarding reliability, the instrument's internal consistency was assessed using Cronbach's alpha. This statistical procedure evaluates the degree to which items measuring constructs

produce consistent responses. The reliability analysis was conducted using Statistical Package for the Social Sciences (SPSS) (Creswell & Creswell, 2018).

3.7 MEASURE TO ENSURE TRUSTWORTHINESS

Credibility refers to the congruence of research findings with reality (Lincoln & Guba, 1985). Credibility happens when the researcher collects data over an extended period. Dedicated time means the researcher spends time in the field, engaging with participants and studying their activities to enhance the researcher's understanding of the study (Ahamed, 2024). Credibility is like internal validity in quantitative analysis (Haq et al., 2023). To assess credibility, the researcher conducted in-depth face-to-face and telephone interviews, which provided a safe platform for participants to discuss their coping mechanisms with ADSI. Field notes and audio recordings captured behavioural and emotional nuances, while verbatim transcription and probing techniques ensured accurate representation of participants' experiences and minimised researcher bias (Ahamed, 2024). The interview lasted 25-30 minutes, allowing time to take field notes and audio recordings. Researchers probed and got clarity on the participants' views and experiences of the mental health condition.

Transferability refers to the extent to which research findings can be applied to similar contexts, populations, or settings. In this study, transferability was enhanced through detailed descriptions of the research environment, participant profiles, and procedures. The inclusion of students medically diagnosed with anxiety, depression, or suicidal ideation from public universities (UNAM and NUST) strengthens contextual relevance and allows for extrapolation to similar institutional settings (Ahmed, 2024; Haq et al., 2023).

Dependability was ensured through transparent documentation of the research process, enabling replication in comparable contexts (Lincoln & Guba, 1985). Confirmability was supported by presenting the semi-structured interview guide to experts and using verbatim transcripts and audio recordings to minimise researcher bias. Although peer debriefing and member checking were not feasible due to geographic constraints, the mixed methods approach enhanced objectivity. Triangulation through interviews, observations, and literature further validated the findings by cross-verifying data sources and critically analysing results using SPSS (Amin et al., 2023; Donkoh & Mensah, 2023).

Confirmability was supported by presenting the semi-structured interview guide to experts and using verbatim transcripts and audio recordings to minimize researcher bias. Although peer debriefing and member checking were not feasible due to geographic constraints, the mixed methods approach enhanced objectivity. Triangulation through interviews and the literature further validated the findings by cross-verifying data sources and critically analysing results in SPSS (Amin et al., 2023; Donkoh & Mensah, 2023).

3.8. ETHICAL CONSIDERATIONS

Ethics is an inherent and inseparable part of clinical medicine, as physicians have ethical obligations to benefit (a) beneficence, (b) avoid or minimise harm, and (c) respect the values and preferences of the patient (Varkey, 2021). Research ethics must be recognised by each researcher involving human subjects as participants. The Declaration of Helsinki (1964) is a statement of ethical principles for medical research involving human participants following the atrocities of unethical medical research during the Second World War (Parums, 2024). In addition, this ethical guideline ensures that medical researchers protect the rights of the research study population and address contemporary research challenges such as global emergencies and data privacy. For this reason, the researcher sought ethical clearance from the Ministry of Health and Social Services, NUST, and UNAM campuses that participated in this study, and it was granted.

Approval of the study

The following approvals are at hand. The researcher applied for ethical approval from the Faculty of Health and Applied Sciences at NUST (FHNRS:60/2023) on 19 October 2023. Ethical clearance for research studies protects participants' rights, dignity, and safety, ensures the study is conducted responsibly, and guarantees the credibility of the study's findings (Hanekom, 2018). The ethical clearance application for NUST was approved and granted on 19 October 2023.

Ministry of Health and Social Services

The researcher applied for permission to collect data from the MoHSS, which is the custodian of public health in Namibia. This was done to ensure that all research aligns with national health priorities, policies, and ethical standards. The permission was sought on 2nd December 2023. On 18th December 2023, the Ministry sent the research proposal to the researcher with minor comments. The updated version was sent back to the MoHSS. Ethical clearance from the MoHSS was granted on 22nd December 2023 (reference number 22/3/1/2).

Institutions

The researcher sought permission from the NUST and UNAM campuses where the study was conducted. The researcher was granted permission from all institutions: NUST main campus, 24 January 2023; Eenhana NUST campus (02 February 2024); UNAM Main campus (01 February 2024); Hage Geingob Campus (16 April 2024); and UNAM Oshakati campus 15 March 2025), Southern campus (19 March 2024). These are attached as appendices to this study.

Principle of respect for participants

Humans have rights that must always be respected. Respect for research participants means protecting individuals' autonomy. Mandatory informed consent is special protection for persons incapable of autonomous decision-making (Damtew, 2018). Study participants were given information about the study before data collection to ensure their right to full disclosure. The researcher ensures that the participant understands the informed consent form. The participants understood and decided to sign a voluntary informed consent. (The Nuremberg Code, 1949), is necessary for voluntary consent by competent human subjects, freely and without coercion (Nagai et al., 2022).

This implies that individuals make their own decisions about whether to participate in the study, without coercion. The participants had time to read the information sheet the researcher shared during data collection to ensure that they understood the study. Those who agreed to participate signed a voluntary informed consent. All participants give legal consent; hence, 18 years of age is considered the minimum age. To support autonomy and self-determination, participants were informed that they could withdraw from the study at any time. Data collection tools were coded as p1 (participant 1). The researchers are expected not to disclose participants' information to any other party without participants' authorisation (Varkey, 2021). Confidentiality was maintained at all costs by ensuring the participants' information would not be shared with anyone.

Principle of beneficence

This principle of beneficence requires the researcher to protect and defend the rights of others, prevent harm, and remove conditions that could cause harm (Varkey, 2021). This obligation is to secure the participant's well-being, maximising benefits while minimising risks. This principle also recognises benefits and promotes welfare. In this study, this principle was observed to protect participants from harm.

Nonmaleficence

Nonmaleficence is the obligation of the physician not to harm the patient. This means that the researcher should not cause harm, kill, commit offenses, or deprive others of good. The researcher prioritised the participants' safety through anonymity and confidentiality, thereby preventing foreseeable adverse effects of the study.

Principle of justice

The principle of justice in research refers to fair selection and treatment of the study participants (Gray, 2018). The researcher explained to the participant in detail why the study was conducted and its relevance. The participants were purposely selected due to their unique mental health conditions that they are experiencing.

3.9 CHAPTER SUMMARY

The Chapter outlined the research methodology and protocols that guided the study, ensuring that the reader understood the sequence and application of the methodology in model development. This Chapter also addresses the ethical principles considered during data collection. The next Chapter presents the research findings and discussions.

CHAPTER FOUR

ANALYSIS AND PRESENTATION OF QUANTITATIVE AND QUALITATIVE DATA RESULTS

4.1 INTRODUCTION

This Chapter presents the findings from quantitative and qualitative data. Quantitative results were presented using descriptive statistics to contextualise the study participants' demographic characteristics. Multivariate logistic regression and correlational analyses were conducted to estimate the prevalence and identify its predictors. A correlational analysis was also conducted to examine the relationships among the variables under investigation, in line with the study objective. The findings were presented as graphs, tables, and pie charts. The qualitative data were analysed using ATLAS.ti Version 8. This chapter discusses the themes and subthemes that emerged from the data.

4.2. QUANTITATIVE DATA ANALYSIS: PREVALENCE AND PREDICTORS OF ANXIETY, DEPRESSION, AND SUICIDAL IDEATION (PART A)

4.2.1 Socio-demographic characteristics of the respondents

The demographic information included questions about the number of undergraduate students aged 18-24 at two public universities in Namibia. The dataset included 578 undergraduates from NUST and UNAM campuses, including second- and third-year students. The demographic data include participants' ages, sex, academic year, and residential status.

Table 5. Demographic characteristics of the respondents from Namibian public universities UNAM & NUST campuses (N=578)

Table 3: Demographic characteristics of respondents (students)

Variable	Frequency	N	Percent %
Age			
18-19	66		11.4
20-25	512		88.6
Total	578		100
Sex			
Male	258		44.6
Female	320		55.4
Total	578		100
Marital status			
Single	562		97.2
Married	16		2.8
Total	578		100
Nationality			
Namibian	552		95.5
Non-Namibian	26		4.5
Total	578		100
Academic year			
Second year	310		53.6
Third year	262		45.3
Unspecified	6.		1
Accommodation			
Campus Hostel	146		25.3
Commute from urban home	253		43.8
Commute from rural home	38		6.6
Informal settlement	51		8.8
Others	79		13.7
Unspecified	11		1.9
Total	578		100

The demographic profiles of the study participants are highlighted in Table 4.1, revealing that most respondents (88.8%; n=512) were aged 20-24, whereas 11.4% (n=66) were aged 18-19. Regarding sex, females accounted for 55.4% (n=320), whereas males accounted for 44.6% (n=258). Among respondents, 97.2% (n=562) were single, and 2.8% (n=16) were married. Among the participants, 53.5% (n=310) were second-year students, and 45.4% (n=262) were third-year students. Among the respondents, 25% (n=146) were campus hostel residents; 43.8% (n=253) were urban commuters; 6.6% (n=38) were from rural areas; and 8.8% (n=8.8) lived in informal settlements.

4.2.2 Participating institutions

This study was conducted at two public universities in Namibia, NUST and UNAM, across six campuses. The figure below illustrates the number of participants from each campus, presented as frequencies and percentages.

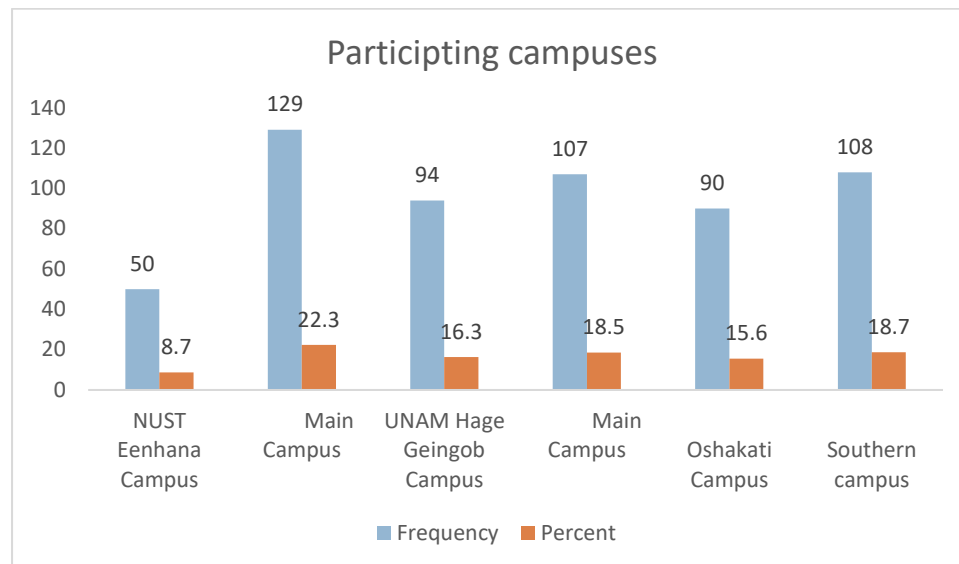


Figure 6: Participating institutions: UNAM & NUST Campuses

To achieve the objectives of this study, six campuses from two public universities in Namibia were included. NUST and UNAM are the only two public universities in Namibia. Systematic simple random sampling was applied to 12 UNAM campuses, giving each of the three campuses equal probability of selection. NUST has only two campuses, and an all-inclusive sampling was applied. Findings indicated that most participants were from the NUST main campus (22.3%; $n=129$), followed by the Southern campus (18.7%; $n=108$) and the UNAM main campus (18.5%; $n=107$). Hage Geingob campus respondents were 16.3% ($n=94$). Oshakati campus respondents accounted for 16.6% ($n=90$), whereas the NUST Eenhana satellite campus reported the lowest proportion at 8.7% ($n=50$). The lower percentages among Eenhana participants are attributed to the campus having few students and being a day campus without residential facilities, with students commuting from distant rural areas.

4.2.3 Predictors of ADSI

Section B of the questionnaire examined potential predictors of ADSI among the respondents. Biological factors included a history of mental illness, admission to mental health units, family history of mental illness, and personality types. Within the same section, economic and family predictors were assessed, including parents' marital status, financial support, childhood

upbringing, family conflicts, and family-related coping mechanisms when stressed. Participants were assessed for potential predictors of ADSI across six campuses.

Table 4: The predictor and related factors associated with ADSI

Variables	Frequency	Percentage
Mental illness before		
Yes	128	22.10%
No	445	77.00%
N/A	5	0.90%
Current mental illness		
Yes	11	1.90%
No	212	36.70%
Unspecified	355	61.40%
Admitted to the mental health unit		
Yes	8	1.40%
No	142	24.60%
N/A	421	72.80%
Unspecified	7	1.20%
Family history of mental illness		
Yes	131	22.70%
No	171	29.60%
I do not know	264	45.70%
N/A	12	2.10%
Relative to a mentally ill person		
Parent	30	5.20%
Sibling	28	4.80%
Extended family	123	21.30%
Not Applicable	397	68.70%
Personality		
Self-confident	392	67.80%
Low self-confident	113	19.60%
Lonely	62	10.70%
Unspecified	10	1.70%
Low self-esteem and loneliness	1	0.20%
Chronic diseases		
Yes	44	7.60%
No	526	91.00%
Unspecified	8	1.40%

The biological factors presented in Figure 4.2 showed that (77%; n=445) had no history of mental illness, whereas (22.1%; n=128) had experienced mental illness in their lifetime. Among those experiencing mental illnesses (1.40% n=8) were those who had been admitted

to mental health units before. This may be attributed to stigma and cultural beliefs associated with ADSI, limited infrastructure where Namibia's mental health units are under-resourced, delayed help-seeking behaviours, and preference to non-medical interventions (Australia Institute of Health and Welfare,2025). In addition, some participants indicated that family history of mental illness (22.3% n=131) had relatives experiencing mental illness, whereas (72.80% n=421) had none. About (5.20% n=30) of parents of these respondents experienced mental illness, making a significant observation of genetic predisposition to mental illness. Among the participants, 67.80% (n=392) are self-confident, while 19.60% (n=113) are very low in self-confidence.

4.2.4 Decision tree analysis for suicidal ideation among university students

The tree shows how different factors predict how recent the student experienced suicidal ideation. The root of this tree starts with 578 respondents and then splits based on the variables that separate the groups, campus-based, and their different levels of suicidal ideation.

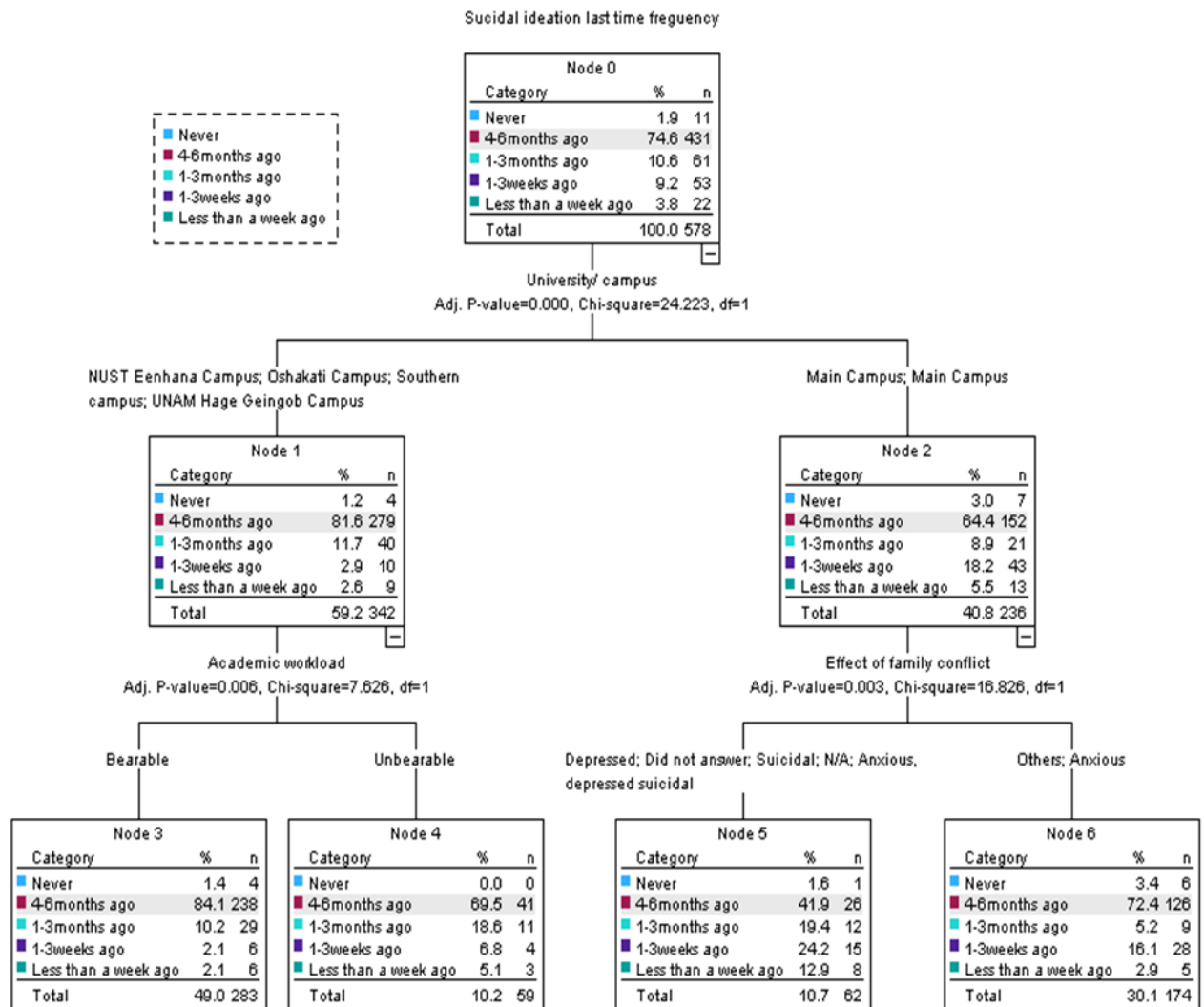


Figure 7: A decision tree for suicidal ideation predictors

The outcomes are listed as occurring 4-6 months earlier, 1-3 months earlier, or 1-3 weeks earlier- and less than a week earlier.

First Split-University campus node 1

The strongest predictors of recent suicidal ideation were the campuses where the respondent attends. NUST Eenhana campus, NUST Oshakati campus, NUST Southern campus, UNAM Hage Geingob campus. Most students, 81.5%, fall within the 4-6 months category, with very few, 2.6%, reporting suicidal ideation within one week period.

Campus 2 node 2

UNAM main campus shows a higher proportion of students having more recent suicidal ideation, compared to the other campuses, with 18.5% reporting suicidal ideation 1-3 weeks earlier, higher than the first group.

Second split: Academic workload (Node group)

Among the participating campuses, the important factor for suicidal ideation at NUST campuses was academic workload. About 84.3% reported that they had suicidal ideation 4-6 months ago, with a very low recent level of suicidal ideation, 2.1%, less than a week ago. However, some stated that their academic workload is unbearable, with recent suicidal ideation 13.8%, within 1-3 months ago, compared to 10.2% in the bearable group. In comparison, 5.1% reported ideation in the past week, higher than in the bearable group.

Second split: Effects of family conflicts (Node 2 group 2)

This group reflects the emotional state resulting from family conflicts. About 12.9% had suicidal ideation, with only 1.6% reporting never having suicidal ideation due to family conflicts.

This implies that campus environment matters, with main campuses showing more recent suicidal ideation than peripheral campuses. This may be attributed to stressors, competition, and support systems within the main campuses. Academic workload, attributed to suicidal ideation, while family conflicts lead to emotional effects, especially depression and suicidal ideation. The bulk of 74.6% students experienced suicidal ideation, 4-6 months, magnifying the high risk of suicidal ideation.

4.2.5 The prevalence of anxiety and depression among the students

The prevalence of anxiety and depression symptoms was determined using frequencies and percentages to assess the extent of these conditions among respondents. The figure below presents the symptoms of anxiety and depression, rated as mild, moderate, and severe responses. The interpretation was conducted to make sense of the data and draw conclusions.

Table 5: Frequencies of anxiety and depression symptoms among students (N=578)

Symptom Level	Anxiety Symptoms n (%)	Depression Symptoms n (%)
Minimal	35(6.1%)	29 (5.0%)
Mild	250 (43.3%)	126 (21.8%)
Moderate	246 (42.6%)	249 (43.1%)
Severe	47 (8.1%)	174 (30.1%)
Total	57800.0%)	578 (100%)

The findings revealed that, anxiety and depression symptoms were prevalent among the participants. As shown in Table 4.2, (43.3% n= 250) experienced mild anxiety symptoms, (42.6% n=246) had moderate anxiety symptoms, and (8.1% n=47) experienced severe anxiety symptoms. Regarding depression, (21.8% n=126) reported mild symptoms, (43.1% n=249) reported moderate depression symptoms, and (30.1% n=174) had severe depression symptoms.

4.2.6 Prevalence of suicidal ideation

This section showed the binary regression, showing the prevalence of suicidal ideation among university students as presented in Table 6 below.

Table 6: Frequency and percentage of suicidal ideation

Variable	Response	n (%)
Passive suicidal ideation	Yes	145 (25.1%)
	No	432 (74.9%)
Suicidal ideation without a plan	Yes	115 (19.9%)
	No	463 (80.1%)
Active suicidal ideation	Yes	88 (15.2%)
	No	490 (84.8%)
Suicidal thoughts (general)	Yes	80 (13.8%)
	No	498 (498%)
Active suicidal ideation with a plan	Yes	56 (9.7%)
	No	517 (89.4%)

The findings reveal that various responses to suicidal ideation among university students who answered “Yes” to passive suicidal ideation were (25.1% n=145), and those whose answer was

“No” (74.9% n=432) had no passive ideation. Among the respondents, there were those whose response was “yes” to suicidal ideation without a plan (19.1%, n=115), while those who had no suicidal ideation were (80.1%, n=463).

Active suicidal ideation was reported to be at (5.2% n= 88), luckily, (84.8% n= 490) had no suicidal plan. Suicidal thoughts in general were noted at 13.5%. Alarmingly, active suicidal ideation with a plan was 9.7%. Factors that contribute to active suicidal ideation may be attributed to alcohol and drug use, which can lower inhibitions and increase impulsivity, making a person prone to suicidal ideation. Although most participants responded “No” across all variables, it is essential to recognise that “Yes” indicates a significant mental health concern among students. Several factors associated with suicidal ideation are listed in Figure 12 below.

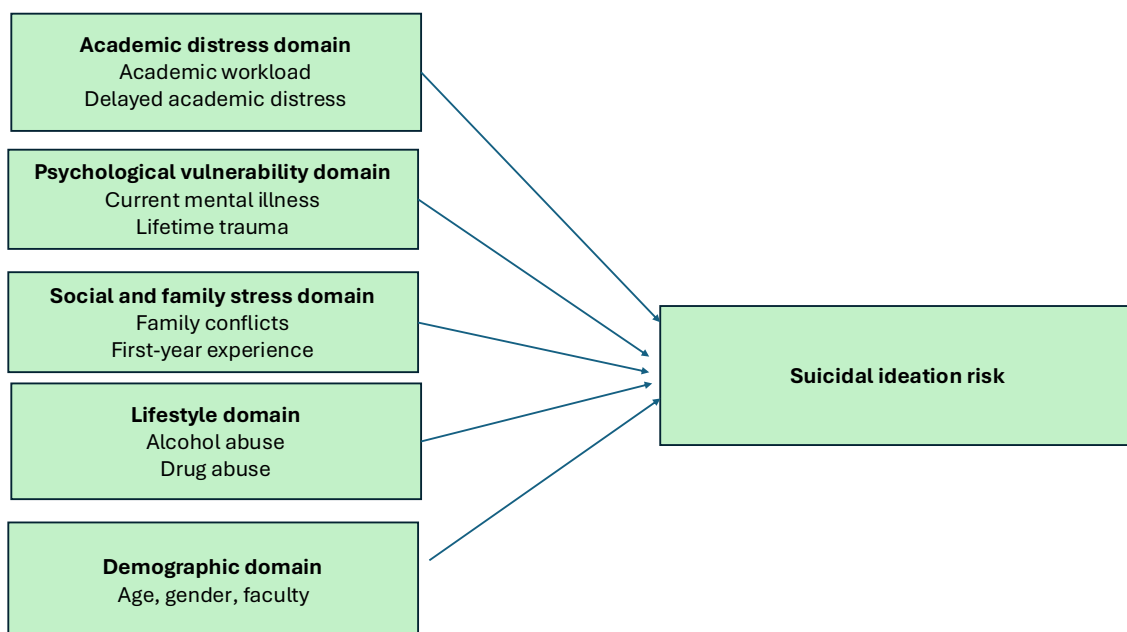


Figure 8: Suicidal ideation risk among students

The schematic presentation in Figure 12 visualises the five predictive domains contributing to suicidal ideation risk among the students.

4.2.7 Types of active suicidal ideation plans

During data analysis, some respondents indicated several ways they would die. This was captured through an open-ended question that asked, “If you selected active ideation, did you think of how you would die? Those responses are listed below, which present the types of

suicidal ideation plans that participants identified, drawn from the open-ended section in the questionnaire.

Table 7: Described suicidal plans (N=578)

<i>Suicide plans</i>	<i>Frequency</i>	<i>Percent</i>
Hanging	5	0.9
Car accident	4	0.7
Tablet overdose	2	0.3
Carbon monoxide poisoning	1	0.2
Falling from the building	1	0.2
Drowning	2	0.3
old age factors	1	0.2
Gun shot	1	0.2
Not described	33	5.7
N/A	525	90.8
Drinking poison	1	0.2
Lonely death	1	0.2
Jump from a moving vehicle into the road	1	0.2
Total	578	100

The table above visualises the frequency and percentages of the types of suicidal plans that respondents listed, of which (0.9% n=5) indicated that they wished to die by hanging. Table 4. The total of (0.7% =4) indicated they wish to die through a car accident, while (0.3% n=2) wish to die by tablet overdose, or drowning. Moreover, (0.2% n=1) indicated that they wish to die by carbon monoxide poisoning, falling from a high building, natural death, old age, gunshot, drinking poison, loneliness, and jumping from a moving vehicle. Among these respondents (5.7% n=33), although they selected being suicidal, they did not list the type of active suicidal plan. Overall, (90.8%, n=525), the selected were not applicable, since they had no suicidal thoughts or ideation.

4.2.8 Pearson's correlational coefficient analysis of ADSI

This statistical analysis described the strength and established the relationship between the two variables. It quantified the strength and direction of the linear relationship between the continuous variables.

Table 8: Correlational table for ADSI

Variable	Anxiety	Depression	Suicidal Ideation	Current Mental Illness	Family Conflict
Anxiety	1	$r = .284, p < 0.001^{**}$	$r = .166, p < 0.001^{**}$	$r = .162, p < 0.001^{**}$	$r = .088, p = 0.034^*$
Depression		1	$r = 0.362, p < 0.001^{**}$	$r = 0.276, p < .001^{**}$	$r = 0.111, p = 0.007^*$
Suicidal Ideation			1	$r = .261, p < 0.001^{**}$	$r = .117, p = 0.004^*$
Mental Illness				1	—
Family Conflict					1

Pearson's Correlation Coefficient (r)

*Note. $p < 0.05$ (), $p < 0.01$ (), $p < 0.001$ (**).*

All correlations are Pearson's r.

The findings indicated a significant relationship between anxiety, depression, and suicidal ideation Table 8. There was a positive correlation between anxiety and depression ($r = .284, p < 0.001$), and between anxiety and suicidal ideation ($r = 0.166, p < 0.001$). This indicates that those experiencing one of these conditions are highly likely to experience the others common symptoms such as restlessness, fatigue, and hopelessness. Amongst the participants, experiencing mental illness was positively associated with anxiety ($r = 0.162, p < 0.001$), depression ($r = 0.276, p < 0.001$), and suicidal ideation ($r = 0.261, p < 0.001$). Family conflict showed a weaker but significant positive correlation with anxiety ($r = 0.088, p < 0.034$), depression ($r = 0.111, p < 0.007$), and suicidal ideation ($r = 0.117, p = 0.004$), while suicidal ideation ($r = -0.111, p = 0.007$), suggesting a potential protective effect and resilience.

4.2.9 Hierarchical regression analysis of prevalence and predictors of ADSI

A series of hierarchical regression analyses was conducted to identify the prominent predictors of anxiety, depression, and suicidal ideation among students at public universities.

Table 9: Predictors of anxiety, depression, and suicidal ideation

Predictor	Anxiety (β)	P	Depression (β)	p	Suicidal Ideation (β)	p
Age	0.001	.495	.016	.352	-.103	0.007 *
Gender	0.075	0.035 *	.050	.115	-.033	.213
Academic year	-0.003	0.471	-.053	.129	-.097	0.010 *
Faculty	.077	0.031 *	-.047	.140	-.123	0.001 **
Current mental illness	-.162	0.001 ***	-.276	.001 **	-.198	0.001 **
Personality	.131	0.001 *	.087	.019 *	.054	.096
Family conflict	-.022	.302	-.144	.000 *	-.171	0.001 *
First-year experience	-.048	0.001 *	-.037	.141	-.080	0.032
Feeling after failing a module	.030	.234	-.045	.141	-.104	0.006 *
Lifestyle Smoking	-.003	.472	-.004	.458	-.072	.041
Lifestyle Alcohol abuse	0.066	.057	-.077	0.032 *	-.062	.067
Drug Abuse	.052	.105	0.038	.181	.051	.109

$p < .05$, ** $p < .01$, *** $p < .001$

+ β = higher predictor = higher outcome

- β = higher predictor = lower outcome

According to Table 9, the significant predictors of anxiety include current mental illness ($\beta = -.162$, $p < 0.001$). The beta negative suggests that students experiencing current mental illness reported lower anxiety levels, which may be linked to underreporting, coping mechanisms, and resilience. The study found that certain faculties ($\beta = 0.077$, $p = .031$), indicating that certain faculties may experience higher anxiety due to academic pressure or the lack of support. Significant predictors of Depression included current mental illness ($\beta = -.276$, $p < 0.001$), family conflict ($\beta = -0.144$, $p < 0.001$), and personality ($\beta = 0.087$, $p = .019$). For Suicidal Ideation, significant predictors included current mental illness ($\beta = -0.198$, $p < .001$), that indicates negative direction possibly due to protective factors among the diagnosed individuals, faculty ($\beta = -0.123$, $p < .001$), family conflict ($\beta = -0.171$, $p < 0.001$), and age ($\beta = -0.103$, $p = .007$), which maybe suggestive of younger students may be more vulnerable to suicidal ideation, possibly lack of coping skill and young age factors.

4.2.10 Decision-making tree for depression last time frequencies

The decision tree is a predictive modelling technique used to classify data and identify patterns based on input variables; it also presents chi-square tests and p-values for the variables.

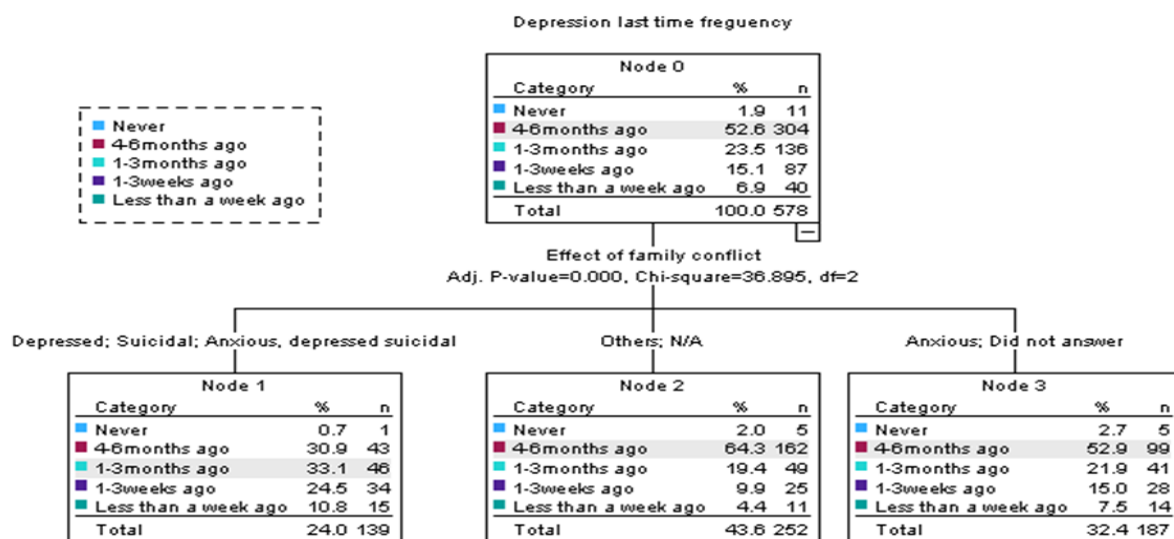


Figure 9: Decision tree-depression frequency

The decision tree shows that students who described the effect of family conflicts using terms like “depressed,” “suicidal,” or “anxious” are more likely to report depression within the last 7 days. The (Chi-square = 36.896, $p < 0.001$). The root Node (Node 0), overall depression frequency: (6.9 % $n=40$) of students reported feeling depressed, while 1.9% never felt depressed due to family conflicts. Since depression is common among students, it is due to family conflicts with a significant($p < 0.001$). With reference to node 2, some respondents report never experiencing family conflicts. So those who gave a neutral response in Node 1 were depressed, suicidal, and anxious because of family conflict. Node 1 presents students who linked family conflicts to severe emotional distress, denoting a higher proportion of recent depression in the <1 week (10.8% $n=15$), with reference to (0.7% $n=1$) who never felt depressed because of family conflict, as shown in Figure 13.

By quantifying the prevalence, the study provides empirical evidence to guide Namibian public universities and the MoHSS in prioritising mental health interventions. The identified predictors, such as academic stressors and social determinants, can inform targeted prevention strategies, rather than generic wellness programmes.

4.3 QUALITATIVE DATA ANALYSIS: EXPLORE THE COPING MECHANISMS EMPLOYED BY UNDERGRADUATE STUDENTS IN RESPONSE TO ADSI (PART B)

The following section is a qualitative presentation of the study results, describing how students cope with anxiety, depression, and suicidal ideation. The themes and subthemes that emerged from the verbatim transcriptions were discussed and supported by relevant literature.

4.3.1 Overview of data collection

The study objectives in this Chapter explored the coping mechanisms that students use to cope with anxiety, depression, and suicidal ideation. Regarding ethical issues in research, ethical clearance was obtained from the relevant institution, and informed consent was obtained prior to data collection. The participants were purposively sampled to share their lived experience and coping strategies of ADSI, specifically for students experiencing suicidal ideation or diagnosed with anxiety and depression. Data were collected face-to-face, while some participants were interviewed by telephone.

The qualitative data analysis was conducted using Brun and Clarke's (2006) six-phase thematic analysis, following the steps below:

Familiarisation with data

The researcher transcribed the semi-structured interviews and repeatedly reviewed the transcripts to develop a thorough understanding of participants' experiences. Initial notes and reflections were documented.

Generating codes

The transcripts were imported into ATLAS.TI Version 8, where segments of meaningful text related to students' experiences of anxiety, depression, and suicidal ideation, coping mechanisms, and institutional supports were systematically coded.

Searching for themes

Related codes were grouped into broader categories to identify emerging themes relating to shared patterns across participants' narratives.

Reviewing themes

The preliminary themes were reviewed and refined to ensure coherence within each theme and a clear distinction between themes. This stage ensured that the themes accurately represented the data set.

Defining and naming themes

Each theme was clearly defined and labeled to reflect its central meaning.

Report

The final themes were interpreted and presented with supporting participants' quotations to illustrate how the themes explain students' experience of anxiety, depression, and suicidal ideation.

4.3.2 Demographic characteristics of participants (students)

The demographic characteristics in Table 4.7 indicate that 13 participants were reached and interviewed, as shown in Table 5.1. The variables included pseudonyms, age, gender, and academic year, and comprised undergraduates from public universities in Namibia. The research objective included three males and nine females, indicating that females were most of the participants. The ages of the study participants ranged from 18 to 24 years across the second and third academic streams.

Table 12: Demographic characteristics of students (n=13)

Variable	Category	Frequency (n)	Percentage (%)
Age group	18–19	1	7.7
	20–24	12	92.3
Sex	Male	3	23.1
	Female	10	76.9
Academic year	2nd year	5	38.5
	3rd year	8	61.5

4.3.3 Emerged themes and sub-themes (students' coping mechanisms)

Students were interviewed to explore their coping mechanisms for dealing with ADSI. After the data analysis, six main themes emerged from the participants' interviews through coding and conceptualisation of the findings. Therefore, the main findings, compiled into themes and subthemes, were presented in Table 13

Table 13: Themes and sub-themes of students' coping mechanisms with ADSI

Number	Theme	Subtheme
Theme 1	Persistent emotional distress, anxiety, depression, and suicidality	Academic triggers Childhood trauma Undiagnosed mental illness
Theme 2	Emotional suppression and cultural silence	Gendered expectation, Family invalidation
Theme 3	Coping strategies & support system	Maladaptive coping strategies (sleep, music, and vaping-substance-related coping Escapism through music
Theme 4	Academic pressure	Module failure, exam stress, self-worth erosion Determination
Theme 5	Service accessibility and institutional gaps	Lack of visibility Missed appointments Positive experience with counselling Limited availability
Theme 6	Informal network	Disclose to trusted friends, Avoidance of family due to mistrust

Theme 1: Persistent emotional distress, anxiety, depression, and suicidal ideation

The undergraduates from public universities in Namibia experience anxiety, depression, and suicidality related to academic pressure and childhood trauma. In exploring the coping mechanisms of how students handle ADSI, the following sub-themes emerged and were identified: academic, trigger, childhood trauma, and undiagnosed mental health condition, as discussed below.

Sub-theme 1.1 Academic triggers

Although academic triggers were not asked about per se, it emerged as the main leading cause of emotional distress. Students expressed that academic pressure makes them vulnerable to emotional distress. Academic trigger may be attributed to specific events or stressors within the academic environment. This activates emotional distress. An individual's coping capacity,

the campus's support system, and personal history, among other factors, determine this. The following narratives elaborate as such:

I felt like a failure and like I did not have a purpose in life because my classmates were moving forward. P5

I felt like maybe I am not meant to be a student. Maybe I do not belong here. Maybe I would have studied something else. Yeah, it makes me feel like I am not good enough or smart enough for school. P3

The narratives above indicate that students experienced ADSI related to academic pressure. In an academic setting, common triggers may include unexpected surges in workload, examination pressure, poor grades, harsh feedback, academic failure, fear of repeating a module, and uncertainty about academic progression.

Sub-theme 2.1 Childhood trauma

Students experienced post-traumatic events linked to adverse childhood trauma, including exposure to traumatic events, which may include emotional distress, physical abuse, and parental conflicts. These experiences shape the cognitive, emotional, and behavioural patterns that continue to influence mental health in adolescence and adulthood. This makes the students most vulnerable to emotional distress, as opined in the following narratives:

I will talk about PTSD. When we were younger, we lived with our parents in Windhoek, but my father was an abuser. The abuse between my father and my mother played a significant role in my depression and anxiety as well. It was also fuelled by one of my close relatives losing one of my cousins to cancer, because of watching someone die slowly every day. It was hard, P9.

I experienced childhood trauma. Umm, physical abuse, emotional abuse. And then somehow, financial abuse also came into play. One parent started going through financial abuse, which affected the rest of us. P10

Childhood trauma disrupts the child's sense of safety, which may directly lead to increased vulnerability to anxiety disorders later in life.

Sub-themes 2.3 Undiagnosed mental health conditions

Among the participants, some were not medically diagnosed with the mental health conditions. However, they have symptoms of anxiety and depression. Undiagnosed mental health conditions highlight an important yet overlooked contributor to ADSI. Many individuals enter the universities with preexisting conditions, while others were never formally designed. The delay in health seeking may be owed to stigma associated with mental illness, as opined:

I think I am experiencing anxiety. For 6 years, I was never on medication to help me cope, since I was not medically diagnosed. P8

I have not seen a doctor concerning that. I would use medication, calmers, and to calm myself. So, they were not suitable for academics at the same time because it would calm you down to the point where your brain could not function vividly, P11.

While some students were clinically diagnosed and on treatment, others remain undiagnosed and untreated. The consequences of undiagnosed mental health issues among university students are frequently attributable to stigma, lack of awareness, limited services, and cultural norms that dissuade help-seeking behaviours. With this study, the researcher explored the participants' awareness of mental health available at their campuses and opined as follows:

Theme 2 Emotional suppression and cultural silence

Cultural norms and expectations discourage males from freely expressing their emotions. This leads to masking of the symptoms, owing to fear of being judged, while internalising emotional distress. In many cultures, emotional expression is constrained by norms that encourage endurance, discretion, and resilience while concealing emotional distress. The following subthemes, elaborated further in this context, are below:

Subtheme 2.1 Gender expectations and family invalidation

Male students shared their childhood experiences and how their cultural background influenced their coping strategies. These cultural expectations shape emotional patterns and how individuals cope with academic and personal pressures. Thus, cultural silencing and family validation remain significant barriers to emotional well-being and openly addressing psychological distress. That is how the male participant narrated that they concealed their emotions, because

Men in our family should not show signs of weakness. You grow up with that image, this is how you should be. This is how you should look outside. As a man, you are indeed a strong person.

So, there was never freedom of expression, basically. So, yeah, I think that was probably a result of growing up. That is why I cannot tell my mom if I feel depressed, because she never gave me the platform. P3

Emotional suppression was also discovered, as the students would rather suppress their emotions, due to cultural silence, especially for a boy child. A boy child in many cultures is socialised from a young age to suppress their emotional vulnerability, avoid expressing fear or sadness, and adopt a posture of strength and resilience.

Sub-theme 2 Family invalidation

Family invalidation also emerged as a subtheme, indicating it as a psychosocial factor contributing to anxiety, depression, and suicidal ideation among the students. Invalidation occurs when a child's emotional concerns or experiences are dismissed, minimised, or criticised rather than acknowledged.

Sorry. So yeah, with family. I guess there is a point where I tried to turn to them a lot, and talking to people helps, but there is a point where, under certain conditions, it's pretty hard to figure out what to do. Moreover, many people, especially those who are very loving towards you and really want you to get better, try to solve it, and when they can't, they stop. However, it's not easy to give advice and then have the person be OK. You know, so either they get sad or, you know. They become frustrated and depending on how desperate they are for you to get better. Their frustrations can boil over, leading them to attack you as well. So, I guess that caused me to become more resistant to letting friends and family in because I feel P2

Family invalidation contributes to anxiety, where the child grows up in an environment where their emotions are suppressed, discouraged, or criticised.

Theme 3: Coping strategies and support system

With persistent signs of mental health conditions among students, there are several coping strategies used, including avoidance, problem-focused coping, and emotional coping. Coping

strategies play a significant role in how students manage emotional distress and respond to academic, social, and personal challenges. The following subthemes emerged and are discussed below.

Subtheme 3.1: Maladaptive and avoidance coping strategies

Avoidance emerged as a commonly used, although maladaptive, coping strategy among students. Students conceal their emotional pain through avoidance and pretence, which includes withdrawing from the stressful situation, procrastinating, emotionally shutting down, or distracting oneself rather than addressing the distress directly. This masks their emotional vulnerability, extending the invisible struggle of mental illness alone and numbing the feeling through smoking, vaping, sleeping, and alcohol use.

I avoid everybody. I become quiet, avoiding people, thinking it allows me to be alone and avoid dealing with anything, and I slip into isolation mode, drinking alcohol and smoking. P12

The only thing I have is God. I try to avoid having many people around. I find it hard to want to talk to people every day. I try to isolate myself so I can have my own space. P4

Avoidance as a coping strategy among undergraduate students is maladaptive, as it provides short-term relief while prolonging long-term suffering. Avoidance may reduce stress temporarily; however, this may lead to anxiety in the long term. This pattern may lead to other mental health conditions, such as depression.

Subtheme 3.2: Mindfulness and emotional regulation

In contrast with the above coping strategies, supportive family support was found to play a critical role in emotional regulation. Mindfulness increases awareness of the present moment and acceptance of thoughts and feelings without fear of being judged. A sense of resilience is picked up in the following narratives:

My mom is a nurse, so she is very supportive. I think, to some extent, because of my character, they are sensitive about how to approach me throughout life, so they remain supportive. I can say that my environment at home is good at. (P7).

Mindfulness and emotional regulation are powerful adaptive strategies that help students manage daily stress, anxiety, and academic stressors. It reduces anxiety by grounding the student in the present moment, breaking the cycle of overthinking.

Theme 4: Academic pressure

Academic pressure emerged as the prominent factor influencing the emotional well-being of the students, related to anxiety, depression, and suicidal ideation. Several students experienced ADSI that was related to examination stress, delayed academic progression, and academic failure. However, resilience was strongly evident despite the challenges, as students are purpose-driven.

Subtheme 4.1: Module failure, exam stress, and self-worth erosion

Module failure emerged as a significant emotional stressor that deeply affects students' sense of self-worth and contributes to heightened anxiety, depression, and suicidal ideation. This subtheme elaborates on the experience of academic failure and examination stress, which significantly erode self-worth, leading to emotional distress, avoidance behaviours, and reduced help-seeking within the university environment, as opined below:

When I failed my modules, I felt less deserving of the opportunity to come to university. Yeah. P10

It isn't easy, like you must balance. You must force yourself to put in the work even when you are feeling very low, because they are not going to wait for you. Unfortunately, so you just must. You must try. To work through the pressure. (P5)

Students often face intense internal and external expectations from family, peers, and even the university to meet university standards. In an academic environment, where performance is closely tied to identity, achievement becomes a measure of competence and personal values. Module failure is linked to increased anxiety, due to fear of repeating a module, worry about academic progression, and uncertainty about the future.

Subtheme 4.2: Delayed academic completion and determination

Delayed academic completion and determination were significant triggers that affected the psychological aspect of the student, leading to anxiety, depression, and suicidal ideation. Due to academic pressure, students fear repeating coursework while others are completing it, due to a disrupted academic timeline. Academic challenges, including failure, lead students to

spend more time at the academic institution than expected, but determination for academic achievement was highlighted as follows.

I started attending university in 2020, but I should have finished a long time ago due to all those effects. I am still here. P7

Generally, failing a module has adverse effects on students, including delayed graduation, prolonged time at the university, increased risk of further failures, and the risk of being left behind by peers. These students may also experience emotional burden due to this, with increased vulnerability to depression.

Theme 5: Service inaccessibility and institutional gaps

Service inaccessibility is considered a serious structural factor that affects students' emotional well-being and influences levels of anxiety and depression among the undergraduates. At public universities in Namibia, while some students accessed counseling services, others described the devastating effects of missed appointments. This was associated with a lack of visibility and delayed collaboration.

Now, honestly, I feel like they do not really take mental health seriously. I am not sure if they have a therapist. I was supposed to have an appointment for a session last week. I tried to find the office, but I could not locate it. My information is on the system, but I have not received a call. I would have committed suicide within like 2 minutes. P12.

The keyway in which inaccessibility affects students is through heightened anxiety, because when academic or personal challenges arise, the inability to access counseling or even academic advisors leads to emotional strains.

Subtheme 5.1: Lack of visibility and missed appointment

Lack of visibility and missed appointments emerged as indicators of how institutional and personal barriers influence students' emotional well-being. As a result of the lack of signage and availability of mental health care, it was identified as a stumbling block in the accessibility of mental health care to at-risk students.

I spent many months suffering and then having to commute to see different psychologists and psychiatrists at another location. However, I met a friend who told

me there are student counsellors. If I had not met her, I would not have known about them because they don't share that information. P9

No, I do not think we have those mental health things. Alternatively, maybe if we have, I do not really engage with people, you know. However, I do not think there is. P13

Uh, well. Fear of being judged. I fear they will not validate my situation, make it seem small, or not give the reception I would like. Maybe, yeah. P3

No. I do not know if there are mental health services here. P1

Lack of visibility arises when students feel less regarded and less supported in academic environments, especially in counselling settings. Missed appointments are another concern, as students miss them due to fear, shame, barriers, or accessibility challenges.

Subtheme 5.2: Limited availability and lack of mental healthcare professionals

Limited availability of campus mental healthcare services leads to frequent missed appointments, which is a barrier to the provision of adequate mental health support. While some campuses have mental healthcare professionals, others still lack such provision, negatively impacting students experiencing mental health challenges.

She is the only one who visits both campuses and supports them. She is just on campus for two days a week. Sometimes when you need help, she might be helping students from the other campus. P8

No, I don't think we have those mental health things. Alternatively, maybe if we have, I don't really engage with people, you know. However, I don't think there is. P13

On campus, we have a social worker. So, she gives counselling. Umm, she is the first person that I went to talk about my issues, and then she referred me to the central hospital. We also have a clinic on campus, so that is another option. P7

Fragmented mental health support leads to poor coordination, delayed care, and compromised service delivery. At the institutions studied, some have no mental health professional to provide mental health care to students. This is a serious gap that calls for the provision of mental health care for all students from public universities in Namibia. Limited availability intensifies anxiety among students, who are already struggling with academic and personal issues.

Theme 6: Peer advocacy and informal network

Peer advice and informal networks emerged as meaningful protective factors that shape how students cope with stress. Peer counsellors, roommates, and trusted friends serve as the support system for students experiencing mental health crises. Some students confide in friends rather than family members.

I am also a peer counsellor now, and I think it is more noticeable because we have social media platforms like WhatsApp, and our numbers are visible to every student on campus. P9

Peer educators and informal networks play a significant role in mental health support, fostering trust, reducing stigma, and ultimately bridging gaps in the formal care system. Peer educators often have personal experience with mental health challenges, which enables them to offer empathetic, relatable support that professionals may lack.

Subtheme 6.1: Disclosure to trusted friends due to family mistrust

Disclosure to a trusted friend rather than family emerged as a good coping pattern among students who experienced emotional distress. Due to fear of being judged and avoidance of sharing with family due to mistrust, some students feel more comfortable sharing their mental health conditions with their trusted friends, as narrated below.

I do not tell them because I feel they do not understand me. They will say it is just a fear of failing. I told them at some point, and she went to the rest of the family. I decided not to share anything with them anymore, but rather with my friends, who motivate me. P8.

Family mistrust undermines students' emotional security, leading students to confide in their friends for support rather than mental health care. Students who cannot rely on their families for emotional support feel unsafe to express their vulnerability. This objective implies that coping mechanisms are diverse, context-driven, and deeply tied to students' social realities. In addition, the public universities in Namibia must design student-centred, culturally sensitive, and holistic interventions that strengthen adaptive coping and reduce factors ADSI.

4.4 QUALITATIVE DATA ANALYSIS: ESTABLISH THE PRACTICES OF THE MENTAL SERVICE PROVIDERS RELATED TO THE EARLY IDENTIFICATION OF UNIVERSITY STUDENTS EXHIBITING ADSI (PART C)

The objective established the practices of the mental health care providers, in early detection and support of students experiencing ADSI. These data were collected from mental health providers at public universities who participated in this study.

4.4.1 Overview of data collection

The dataset for this objective was collected from mental health providers across the UNAM and NUST campuses to examine their practices regarding the early identification of students experiencing anxiety, depression, and suicidal ideation. Mental healthcare providers also described their practices for supporting the student. Data were collected face-to-face, and some participants were interviewed by telephone. The data were analysed using ATLAS.ti, version 8, following the six steps of Braun and Clarke's inductive thematic analysis, as discussed in Chapter Three.

4.4.2 Data analysis

Thematic analysis identified six themes and sixteen subthemes that emerged from the interviews. This qualitative study explored the practices that expose the challenges mental health care providers face in the early detection of ADSI across Namibia's public universities. The Thematic analysis identified six major themes, revealing systematic gaps in the early detection of at-risk students and highlighting deficiencies in the university's existing mental health support framework.

4.4.3 Demographic characteristics of the participants

The participants for these objectives comprised mental health care providers, registered nurses, student counsellors, and support personnel from six public university campuses in Namibia.

Table 10: Demographic characteristics for service providers (n=11)

Variable	Category	Frequency n
Age (years)	30–35	2
	36–40	2
	41–45	3
	46 –50	1
	51 and above	2
Sex	Male	1
	Female	10
Qualification	Diploma	2
	Degree	7
	Doctorate	1
Site of Study	NUST Main Campus	2
	Eenhana Satellite Campus	2
	UNAM Main Campus	4
	Hage Geingob Campus	1
	Oshakati Campus	1
	Southern Campus	1
Work Experience	Registered nurses (<10 years)	3
	Student Counsellors (<10 years)	6
	Support Persons (>10 years)	2

Eleven mental health service providers participated in this study, including three nurses, six student counsellors, and two support persons from the participating public universities in Namibia. See Table 10 for the demographic characteristics of the participants: 10 were female, and 1 was male, all of whom held a higher degree; about 2/3 of the participants were aged 41 years or older.

Table 11: Themes and sub-themes of the mental healthcare service providers

Theme	Sub-theme
Institutional gaps	Lack of protocols and screening tools Absence of on-campus professionals Fragmented infrastructure
Peer-led detection and support	Peer educator involvement WhatsApp and social cues
Stigma and cultural resistance	Religious and cultural framing Family denial and criticism Student masking and partial framing
Socioeconomic vulnerability	Poverty Unwanted pregnancy Substance abuse
Informal psychosocial support from non-mental healthcare professionals	Trusted staff as first contact Advice and listening as an intervention
Structured screening and referral tools	The use of a validated tool by some campuses

The themes and subthemes that emerged from the mental health services providers were coded in Table 11. The discussion of each of them will be elaborated in the subsequent section of this thesis.

4.4.3.1 Theme 1: Institutional gap

Among all six campuses, only two provide health services and mental health support. The major subthemes that emerged were the lack of screening tools, the absence of on-campus mental health professionals, and, within those settings, service gaps in the following areas.

Subtheme 1.1: Lack of protocols and screening tools

The institutional gap emerged as a structural factor, hindering service delivery due to a lack of screening tools. As a result, students are left vulnerable to ADSI. The lack of early detection tools was observed across all campuses. However, some sites use the validated PHQ-9 and checklist, which the institutions did not fully adopt. Participants opined as follows:

We do not have a specific mental health protocol or screening tools. We use our basics. Remember when we did our studies as registered nurses, P1, RN.

The institution did not adapt the screening tool. It was just my own thing; I always did it because I needed to remember to ask about mental health. P3 RN

At this point, we do not have specific protocols and guidelines in place. The protocols and procedures I use are usually those I have learned or experienced during my time here. So, if a student is referred, I will usually ask certain questions regarding their mental health. And then there is a referral. If at this point, I do not feel qualified to assist a student.SC 1

A major institutional gap relates to the absence of validated mental health screening tools, without routine or systemic screening. Some students experience emerging emotional difficulties, which remain untreated. The absence of formal protocols, screening, tools, and on-campus professionals was identified as a critical barrier.

Subtheme 1.2: Absence of on-campus professionals

Absence of on-campus professionals further increases the risks of ADSI, because of unfragmented mental health services delivery. Participants were concerned about the lack of health professionals and on-campus health facilities. One participant remarked as follows:

We do not have a clinic or a social worker here; we do not have a permanent station on campus. P10, SS.

Because one thing is, we do not have trained health practitioners. Our SRC are all first aiders. P11.

The absence of on-campus professionals leads to fragmented care, whereby mental health support is dispersed across unrelated departments, resulting in unclear referral pathways, inconsistent communication, and poor follow-up. This gap in institutional mental health can have serious consequences for student well-being, retention, and campus safety.

Subtheme 1.3 Fragmented infrastructure

Fragmented infrastructure emerged as a critical institutional gap affecting the students' well-being. This implies that, in a university setting, mental health and academic support systems exist in isolation rather than operating as an integrated continuum of care. Some mental health professionals operate from the fragmented site, which may compromise service delivery, as stated here.

On this campus, I am serving four campuses. As a result, some campuses are neglected. I am the one coordinating all health services. We do not have a clinic here. P6 SC

Our hospital is over 20 kilometers away, and the clinic is approximately 11 kilometres away. That is not good,.P11, SS.

A single mental healthcare provider supporting multiple campuses, each with several students experiencing mental health challenges. This leads to compromised healthcare and burnout, which further contributes to heightened anxiety by creating chaos as to where support can be accessed.

4.4.3.2 Theme 2: Peer-led detection and informal referral

Peer-educators play a significant role in identifying and referring students in distress to us. However, some study sites also desire to have peer educators. As a result, peer educators and support emerged as a powerful mechanism in safeguarding students' mental health regarding ADSI.

Subtheme 2.1: Peer educators' involvement

Peer educators are closely embedded within the same social and academic spaces, enabling them to detect these mental health shifts in a timely manner and initiate quick responses, as opined below.

Peer educators help with identifying students on some campuses; they serve as our eyes and ears, P2 RN.

This year, we are initiating peer counselling training to identify students in the community who can recognise issues and refer peers to social workers or psychologists if necessary. P4 SC.

Peer educators play a significant role in identifying at-risk students because of their proximity to students on UNAM campuses. However, NUST campuses did not have peer educators during data collection. Peer-led detection plays an important role in identifying emerging anxiety symptoms and acting as a buffer to depression.

4.4.3.3 Theme 3: Stigma and cultural resistance

Stigma and cultural silencing emerged as social barriers that shape students' understanding and response to emotional distress. Mental health care providers highlighted the challenges they face in providing care. Stigma and cultural beliefs emerged as a great hindrance to mental health provision. In many cultural settings, mental health challenges are often associated with weakness, shame, or emotional inadequacy.

Subtheme 3.1: Religious and cultural framing

Religious and cultural framing shapes how students interpret, express, and respond to emotional distress. A significant observation that emerged was that participants are aware of the stigma and cultural beliefs associated with mental illness, thus hindering students from seeking mental health care.

Yeah, sometimes it is a cultural issue, or even biblical or religious ones, things like that.

Yeah. So maybe witchcraft, biblical or religious issues, P1 RN.

Cultural and religious beliefs intensify stigma. While cultural framing also plays a significant role in the development of depressive symptoms, students are compelled to hide sadness, fatigue, or loss of motivation. In some instances, depression may be framed as a lack of faith, failure to fulfil expected roles, or being not strong enough.

Subtheme 3.2: Family denial and criticism

Family denial and criticism are rational factor that shapes emotional vulnerability and influences ADSI. In some households, emotional struggles are not openly acknowledged, and mental health issues may be dismissed. Among participants, the fear of being labelled mad was prevalent among students, as stated here.

The student faces the fear of being labelled "Mad", and their family calls them an attention seeker. P9, SC.

So, for me, it was basically just an engagement meeting with the family. But it came out that the student had been diagnosed before; however, the family, or in a specific case, the parents, referred to it as witchcraft. P9 SC

Family criticisms and denial significantly worsen students experiencing ADSI, which leads to emotional isolation, delayed help-seeking behaviours, and increased psychological distress. Criticism also contributed to emotional instability.

Subtheme 3.3 Students masking and partial disclosure

Student masking and partial disclosure are notable behavioural pattern that shapes how emotional distress is managed. Students often conceal their symptoms due to fear of stigma or academic repercussions. As a result, students delay help-seeking, leading to prolonged suffering.

“Students from this campus are brilliant; they are great at masking their emotions. They give half-baked information. This is a challenge, P7 SC”.

Stigma around mental illness remains a key barrier to seeking help in this study. Therefore, student intentionally conceal their emotional difficulties, while partial disclosure involves sharing of partial or carefully selected information about their struggles. Participants, especially males, fear labels, bullying, and the lack of family support, discouraging treatment.

4.4.3.4 Theme 4: Socioeconomic vulnerability

Social-economic vulnerability, including poverty, substance use, financial instability, and unwanted pregnancies, emerged as a contextual factor that influences the mental health resilience of students. The most prevalent mental health conditions are discussed below, with anxiety linked to examination stress.

Subtheme 4.1 Substance use

Substance use may be used as both a coping mechanism and a risk factor, where students turn to alcohol and drugs to escape academic pressure, family difficulties, and financial strain. Although student faces challenges, including academic pressure and mental health conditions, some resort to the use of substances and alcohol, as narrated below:

The most common ones are anxiety attacks, especially during exam time. Then the person will just come with panic attacks, and suicide attempts, and be a suicidal student, as if they used drugs (P3 RN).

Student abused drugs and alcohol, affecting their schoolwork and behaviour. P11, SC

Subtheme 4.2 Poverty

Poverty and financial issues contribute to chronic anxiety, since students are unable, and often experience worry about tuition fees, accommodation, food, security, and the ability to remain enrolled. The service providers noted that some students from disadvantaged financial backgrounds face the challenges outlined below.

Poverty contributes to mental health issues because, as students face financial difficulties, it affects their academic performance, P11 SS.

Student experiencing poverty results in continuous emotional tension, difficulty concentrating, and a heightened sense of vulnerability.

Subtheme 4.3 Unwanted pregnancy

Unwanted pregnancy adds another layer to emotional distress, among students who fear being judged by their families and peers, due to financial hardship and academic hardship. A case of unwanted pregnancy leads to acute anxiety among students who are unsupported or unprepared. As opined below.

A student may be pregnant and suicidal, and some are stressed. Can you get a call too? Then you do what you can to help students when they have issues, resolve them, or refer them. P10 SS.

The shock of an unplanned pregnancy leads to fear of disappointing the family or losing educational opportunities, which contributes to sadness, shame, and a sense of being overwhelmed. As a result, the student struggles academically due to psychological distress.

4.3.3.5 Theme 5: Informal psychosocial support from non-mental healthcare professionals

Informal support from non-mental health care professionals emerged as a significant yet under-recognised layer of support for students. Some campuses lack professional counsellors or adequate health services. The site provides only supportive mental healthcare.

Subtheme 5.1 Trusted staff as first contact, listening, and advice

Trusted staff play a significant role in student support. In context, trained mental health professionals are scarce or inaccessible, and students frequently rely on lecturers, mentors,

academic advisors, and residence staff, even spiritual leaders and administrative personnel, for guidance.

I am not a trained or professional counsellor – however, given that I work with students, students always approach the person with whom they are comfortable. I help them speak P10, SS.

Some problems can be resolved without professionals, just advice and listening. P11 SS

The participants' narrative indicated a lack of mental healthcare professionals who work with students, who are available to give a listening ear and pastoral care. In the absence of mental healthcare professionals, support persons, such as the secretary and campus directors, offer pastoral care to provide emotional relief and spiritual guidance, thereby enabling early detection. However, pastoral care should know the referral point for specialised mental health care support.

Subtheme 5.2 Self-referrals

Students refer themselves to the counselling office when they feel they need mental health care. Self-referral is an important behavioural indicator, independently seeking help through campus services, off-campus, or even a religious leader.

Typically, students contact my office when they have a mental health issue or symptoms, and poor academic performance, because they are concerned about their academic performance, P6 SC.

The narrative above elaborated that some students directly seek mental healthcare support without the need for formal referral from faculty or medical providers.

4.4.3.5 Theme 6: Structured screening and referral

Structured screening and referral are essential components of a comprehensive mental health framework, yet they remain underdeveloped, even in higher education environments. Structured screening tools are crucial for early detection and support of students experiencing ADSI. Some study sites used validated tools, such as the PHQ-9 and GAD-7, as stated here.

Subtheme 6.1 Use of structured screening tools by some campuses

Structured screening plays a significant role in the early identification of students experiencing ADSI. This allows the institution to detect students' emotional struggles. Some campuses are proactive in using the validated tools, such as PHQ-9, DSM-5, and cognitive behaviour therapy

I use the PhQ-9 for depression assessment and GAD-7 for anxiety screening, and when I refer, I use counter-referral forms P5 SC.

It is not a tool for early detection. I use DSM-5. Students will find themselves in that situation. However, it should also be noted that it is an adapted tool. It is not that the university developed approved tools. Moreover, all the social workers and psychologists use it. P6 SS

So, they come in for individual counselling, which is therapy-based, chiefly my technique: a user-specific cognitive behavioural approach. PC SS

Structured screening plays a crucial role in early detection, enabling meaningful, sound interventions. Although the public universities in Namibia face systemic challenges, it is essential to note that UNAM campuses are proactive in multidisciplinary collaboration, family engagement, and participation in Continuous Professional Development (CPD). To sum up, this study implies that, while mental health service providers are already engaged in early identification practices, these practices are inconsistent and context-dependent. The development of standardised training, institutional guidelines, and an integrated system that enables systematic, scalable, and culturally sensitive early detection.

4.5 MERGING AND TRIANGULATION OF THE RESEARCH FINDINGS, QUALITATIVE AND QUANTITATIVE, AND IDENTIFICATION OF CENTRAL CONCEPTS

The study utilised a convergent parallel mixed-methods design in which quantitative and qualitative data were analysed separately and integrated during interpretation (Creswell & Creswell, 2018). Quantitative data were analysed using statistical methods to determine the prevalence of ADSI among the undergraduates. Currently, qualitative interview data were analysed using Braun and Clarke's thematic analysis, yielding themes that reflect students' lived experiences, coping strategies, and gaps in institutional support.

Data comparison and triangulation were conducted by comparing quantitative results, identifying the prevalence and predictors of ADSI, with qualitative themes derived from Braun

and Clarke's thematic analysis. The integration of the findings was synthesised through triangulation and joint display analysis, enabling the researcher to identify areas of convergence and complementarity between the data sets. This process facilitated the synthesis of findings from Objectives 1, 2, and 3, informing model development.

The synthesis of the study findings was necessary to consolidate the results across all phases of the study, which aimed to identify the concepts underpinning the early detection model. The merging of the study findings was done by summarising the results, identifying significant patterns and challenges, and deriving central concepts, as shown in Table 5.6.

Table 12: Merging of qualitative and quantitative findings by objectives. Mixed-methods convergent parallel design

Objective	Quantitative Findings	Qualitative Findings	Condition for Merging	Concepts Derived	Central Concept
1. Determine the prevalence and predictors of anxiety, depression, and suicidal ideation (ADSI) among undergraduate students	Quantitative analysis showed the prevalence of anxiety, depressive symptoms, and suicidal ideation. Key predictors: campus environment, academic workload, family conflict, socio-economic vulnerability, and substance use.	Participants described emotional distress linked to academic pressure, family invalidation, cultural silencing, poverty, childhood trauma, and lack of support and episodes of suicidal ideation triggered by academic and relational stressors.	Quantitative predictors aligned strongly with the psychosocial triggers described in qualitative narratives. Qualitative data provided contextual explanations for the statistical associations, strengthening the interpretation of ADSI determinants.	Academic pressure as a psychological stressor, Family conflict and emotional invalidation Cultural silencing and stigma Childhood trauma, Socio-economic vulnerability Emotional distress and hopelessness	Student vulnerability to ADSI, manifested through: • Anxiety • Depression • Suicidal ideation
2. Explore coping mechanisms used by undergraduate students experiencing ADSI	Quantitative findings reflected patterns of help-seeking behaviour, disclosure, and support utilisation. Certain coping behaviours, such as avoidance and substance use, were associated with higher psychological distress.	Students reported coping by avoiding, masking emotions, partial disclosure, mindfulness practices, peer support, emotional regulation, and disclosing to trusted friends. Additional strategies included self-referral, peer-led support networks, and spiritual coping.	Quantitative results identified behavioural trends, while qualitative narratives explained motivations and contextual influences behind coping strategies. Qualitative findings expanded coping strategies not fully captured in the survey.	Avoidance coping Emotional masking and partial disclosure Mindfulness and emotional regulation Peer advocacy and informal networks Disclosure to trusted friends Spiritual and cultural coping	Student coping and help-seeking behaviours influencing psychological well-being
3. Examine the practices of mental	Quantitative findings indicated limited	Mental health providers reported practices including	Quantitative findings highlighted patterns of	Early mental health screening	Institutional early detection and

health service providers in early detection and support of ADSI among undergraduate students	utilisation of institutional mental health services and delayed help-seeking among students.	screening and assessment, counselling and psychosocial support, referral to specialised services, crisis management, psychoeducation, and collaboration with academic staff. Challenges included a shortage of professionals, limited-service visibility, and missed appointments.	low service utilisation, while qualitative data explained institutional and systemic barriers affecting service accessibility and early detection practices.	Counselling and psychosocial support Referral systems and crisis intervention Psychoeducation and awareness programmes Institutional service gaps and resource limitations	support systems for students experiencing ADSI
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The triangulated findings suggest that undergraduate students' vulnerability to anxiety, depression, and suicidal ideation, Table 12. This is shaped by psychosocial stressors, coping behaviours, and institutional mental health support systems, highlighting the need for comprehensive early detection and intervention frameworks within university settings (Braun & Clarke, 2006).

4.6 CHAPTER SUMMARY

This chapter presented the study's results in line with its objectives. The prevalence and predictors of ADSI among students were presented in frequency, percentages, and descriptive statistics. The chapter also presented qualitative findings, showing the theme and subthemes that emerged from this objective of how undergraduates cope with ADSI. The findings of the practices of mental health providers were also presented in this chapter.

CHAPTER FIVE

DISCUSSION OF THE STUDY FINDINGS

5.1 INTRODUCTION

Chapter four presented the quantitative and qualitative findings of this study. Chapter five will present the discussion of the study results in relation to the study objectives. Discussions of the study findings led to the identification of the central concepts and the formulation of the central statement that guided the development of the early detection model for anxiety, depression, and suicidal ideation for the early detection of ADSI among students. The results of this mixed-method analysis include descriptive analyses of the quantitative objectives and narratives from the two qualitative analyses. The quantitative variables derived from the first objective, namely, prevalence and predictors of anxiety, depression, and suicidal ideation among public university students in Namibia, are presented in the descriptive results.

5.2 THE PREVALENCE AND PREDICTORS OF ADSI AMONG THE UNDERGRADUATES OF PUBLIC UNIVERSITY IN NAMIBIA

The study's quantitative objective identified and analysed the prevalence and predictors of anxiety and depression symptoms and suicidal ideation among public university students. It also examined the relationship between ADSI, demographic factors, and predictors such as academic year, family conflicts, faculties, current mental health issues, misuse, gender, and age. Using primary-source data, the prevalence of ADSI was determined in detail. The sample reported higher levels of anxiety and depression symptoms compared to suicidal ideation.

In this study, scientific evidence showed that 50.7% of students reported experiencing moderate to severe anxiety symptoms, and 73% reported having moderate to severe depressive symptoms. These findings were notably higher than those from studies carried out in other countries. The prevalence of anxiety and depressive symptoms in our study exceeded 25%, with depression at 45.3%, compared to a study conducted in Germany (Karing, 2021). Interestingly, in Ghana, the prevalence of anxiety symptoms was 53.3%, and depression symptoms were 25.2% concurrently (Amu et al., 2021). Concurrent with Huran et al. (2025), the prevalence of depression, anxiety, and stress among undergraduates was 49%, 75%, and 73.26%. Moreover,

depression significantly correlates with suicidal ideation ($r = 0.362$, $p < .001$). Higher levels of depression severity increased the likelihood of suicidal ideation and suicidal thoughts. This mirrors the findings of Chiang et al. (2022), that among patients with depression, service providers should be aware of rumination and its impact on suicidal ideation among young patients. Higher rates of depression among undergraduates are caused by heavy academic workload, competitive grading, and fear of failure, leading to chronic stress and burnout. In addition, social isolation and loneliness, as well as the transition to university, disrupt the support network (Heinze, 2023). Irregular sleeping patterns and sedentary lifestyles contribute to biological vulnerability to depression, while romantic breakups, family conflicts, and gender may trigger emotional distress and depressive symptoms.

Factors such as students migrating from rural areas to universities, academic pressure, and the transition process highlight their contributions to ADSI. These factors can negatively affect the student's mental stability, thereby affecting their academic performance. Students from satellite campuses often report lower participation in academic extramural activities due to limited resources, reduced campus presence, and geographical isolation (Ilonga et al., 2020). Although the Oshakati campus is also a day campus, 15.6% ($n=90$) of participants were obtained compared to the Eenhana satellite campus, where only 50 participants were obtained. Students reside in on-campus rented residences, and the student population exceeds 1,000.

Assessment of suicidal ideation revealed that some students experienced active thoughts of suicide, with 9.7% of them reporting a specific plan to carry it out. This study's findings contrast with the Nigerian study, which found a much higher rate: 85.2% of students had passive suicidal ideation compared to active ideation (Adebowale et al., 2024). In this study, multiple predictors of suicidal ideation were identified, including age, academic year, faculty of study, current mental illnesses, family conflicts, and educational failure. Adebowale et al. (2024) identified academic difficulties, substance use, family conflicts, and various psychological stressors as key factors that increase the risk of suicidal ideation among Nigerian undergraduates.

Transitioning from suicidal thought to attempts represents a distinct phenomenon with unique predictors that were beyond the scope of this study (Klonsky et al., 2016). Passive suicidal ideation may be attributed to psychological, social, and academic stress, presumably related to

loneliness, and mental health stigma may contribute to passive suicidal ideation (Kukoyi et al., 2023; Fadipe et al., 2018). Active suicidal ideation is often caused by a combination of untreated mental illness, such as major depression, bipolar disorder, PTSD, and severe anxiety, overwhelming academic stress, social isolation, trauma, and hopelessness about the future (Alfakeh et al., 2023). This may be attributed to fear of stigma, emotional discomfort, lack of trust in the confidentiality process, and uncertainty about one's own thoughts (Barnett et al., 2024).

Among those with a history of mental illnesses (1.9 % n=11) who were currently experiencing a mental disorder, anxiety, depression, and bipolar disorder are strongly associated with biological factors, including genetic, brain, chemical, hormonal, and even neuroinflammatory factors (APA, 2020). This justifies assessing participants for chronic diseases. Previous mental illness is a predictor of ADSI, consistent with a study in Sudan, indicating that a prior psychiatric diagnosis of General Anxiety Disorder (GAD) corresponds to the prevalence of GAD, which ranges from 4-7% (Ibrahim et al., 2024).

Alcohol was identified as a predictor of anxiety, consistent with a study that found social anxiety to be associated with alcohol use. Meanwhile, 25% of participants identified rising alcohol consumption among students as a matter of concern (Hardee et al., 2025; Samek et al., 2024). Academic pressure has increased over the years, as the study predicts that the academic year correlates with suicidal ideation, which can be linked to students contemplating their careers and the competitive job market. In Bangladesh, for instance, higher unemployment has been identified as a contributing factor to student stress (Kamaruzzaman et al., 2024).

According to a Namibian youth survey conducted by Mpako & Ndoma in 2024, the unemployment rate among youth aged 15-35 was 46.1%. These socio-economic pressures compound the academic and psychological stress faced by students, potentially leading to poor mental health outcomes and suicidality. A systematic review done in Africa among people living with mental illness showed that the Quality of Life (QoL) was 45.93% (95% CL=36.04, 55.3), reflecting poor QoL among adults with mental illness (Alemu et al., 2024). Among Chinese students, self-esteem was identified as a predictor of anxiety, which makes an individual prone

to negative self-evaluation, feelings of worthlessness, and increased negative sensations, leading to anxiety and discomfort (Cao et al., 2024).

The study did not investigate the association between age, sex, or academic year and the development of ADSI symptoms. However, females are typically more likely to present with depression and twice as likely to suffer from anxiety and suicidal attempts at an earlier age than males who suffer from depression (Toro et al., 2025). The study showed that the faculty of study had no significant effect, implying that age and academic year were negatively linked to suicidal ideation, suggesting that maturity and academic progress might offer protective benefits (Salek et al., 2024).

5.3 EXPLORING THE COPING MECHANISMS THAT NAMIBIAN UNDERGRADUATES USE TO DEAL WITH ADSI

This qualitative objective explored and discussed the findings from the data collected from undergraduate students at a public university in Namibia since 2024. The students' discussions centred on six themes, as listed in Table 12. The study findings revealed that students experienced stressful events related to academic pressure, childhood trauma, and PTSD. Students also discussed their unique coping strategies, including avoidance, emotional, and problem-focused coping strategies. While some students were clinically diagnosed and on treatment, others remain undiagnosed and untreated.

5.3.1 Persistent emotional distress

This finding revealed the central theme of persistent emotional distress, associated with ADSI, which shaped the sub-theme, academic trigger, childhood trauma, and undiagnosed mental health problems. Academic triggers emerged as a constant factor in the deterioration of undergraduates' emotional states. Concurrent with the findings of Owusu & Essel (2023), academic stress is widely recognised as a major predictor of students' mental health difficulties, while high performance expectations and ongoing student assessment contribute to chronic emotional exhaustion. Academic stress combined with limited institutional support worsens depressive symptoms with a risk of suicidal ideation. This aligns with prior work, which stated that overwhelming academic stress increases vulnerability to hopelessness (Gao, 2023).

Childhood trauma and academic triggers also emerge as an overarching theme. According to Otieno (2025), students with these disorders are likely to lose interest in learning, leading to

poor academic achievement and failure to graduate. A student who experienced childhood trauma is more likely to experience emotional distress. Mirroring the findings of Chen et al. (2024), college students who experienced child maltreatment are at a potential risk of depression, which can have a lifelong impact on the mental health of university students. Furthermore, this may lead to students developing maladaptive coping strategies to cope with past trauma, including isolation and difficulty in trusting others.

Participants who experienced childhood trauma were at high risk of emotional distress. These findings align with the findings of Fan et al. (2024), who found that college students who experienced child maltreatment may develop maladaptive coping strategies to cope with past trauma, including isolation and difficulty in trusting others. Among people who experienced childhood trauma, they often develop maladaptive coping strategies, such as avoidance, isolation, distrust, and emotional withdrawal, which may worsen their mental health condition. Furthermore, studies done in China discussed that mental disorder in adulthood is relatively associated with childhood trauma, and the relationship between childhood trauma and suicide risk is resilience and mental distress (Yao et al., 2023; Wang et al., 2025).

Undiagnosed mental illness was the third subtheme, which highlights the challenges undergraduate students encounter and how they navigate the emotional symptoms without formal identification and support. The lack of mental healthcare services at the university leads to delayed intervention, late identification, and support for the student. These delayed help-seeking leads to increased emotional strains, consistent with evidence that untreated mental health conditions escalate in severity under academic pressure (Auerbach et al., 2018).

5.3.2 Emotional suppression and cultural silencing.

Emotional suppression was also discovered, as the students would rather suppress their emotions, due to cultural silence, especially for a boy child. Concurrent with findings of Tsai & Lu (2018), cultural norms around emotional suppression led to poor psychological and physiological health outcomes, because the individual internalises distress, rather than seeking help. In contrast, Vu & Nguyen (2025) argued that collective culture suppression may sometimes lead to adaptive, fostering social harmony and reducing interpersonal conflict, and highlighted that suppression is not universally harmful but context dependent.

Gender expectations reinforce unequal emotional roles while providing social clarity. Cultural silencing in males is a significant barrier to emotional well-being, as supported by the participant's narrative, "males do not show emotion, you have to be strong." These findings align (Mogano et al., 2025) with a study conducted in Northern Sotho, which found that male youth believe that strong adherence to culture discourages emotional expression, contributing to untreated psychological distress and worsening mental health outcomes in this population. Another scholar also contradicts this perspective, arguing that cultural silencing serves as a short-term coping mechanism, allowing men to preserve dignity and avoid stigma in an environment where mental health is highly stigmatized (Okafor, 2025).

Family invalidation contributes to suicidal ideation, anxiety, and depression. This study elaborated on how family members disregarded students' mental health feelings through criticism, rather than support. According to Peng et al. (2023) and Shu et al. (2024), poor family functioning, invalidation, and lack of emotional support were directly linked to suicidal ideation and depression among college students.

5.3.3 Coping strategies and support

Coping mechanisms influence how students manage stress; however, they can also lead to maladaptive strategies such as withdrawing from stressful situations, procrastinating, and emotionally shutting down. The participants described, "I isolate myself, and want to be alone." Although avoidance may provide temporary relief from discomfort, it ultimately results in increased anxiety, which can be worsened by declining academic performance and feelings of being overwhelmed. This supports the findings of Okechukwu et al. (2022) and Parugao (2024), that academic stress predicts suicidal ideation, and that avoidance coping weakens resilience.

Negative coping strategies, such as alcohol and smoking, emerged. These findings were consistent with the work of Liverpool et al. (2024), which stipulated that isolating while engaging in other avoidance coping techniques, such as talking to friends, using entertainment, practicing religious or spiritual activities, and immersing oneself in hobbies, was a strategy to promote improvement. Students fear judgment, invalidation, or being perceived as weak, which is consistent with Cogan et al. (2022), who found that negative beliefs, stigma, and fear of judgment were evident among Asian international Students. In this study, students who were at higher risk of stress were vulnerable to impaired mental well-being.

As discussed, students feel safest in familiar environments, such as their homes. Mindfulness and cognitive-emotional regulation are crucial for developing awareness and improving (Malik & Perveen, 2023), as well as for moderating the role of emotional regulation in the relationship between mindfulness and psychological distress. This suggests a way to promote mental health among students (Hasan & Uddin, 2024).

5.3.4 Academic pressure

Academic pressure contributed directly to anxiety when students were compelled to meet strict deadlines, maintain higher grades, and satisfy expectations from family and peers. As a result, students experienced persistent worry, tension, and fear of failure. According to the literature, academic stress is a significant concern affecting students' mental well-being (Drescher et al., 2025). Students felt less deserving of the opportunity afforded to them through university admission, reflecting a deep-seated distress over academic failure. Concurrently, Talley (2024) emphasised that academic pressure significantly impacts student well-being, with strict deadlines and performance leading to anxiety and depression. Identifying academic stress and mental health issues among undergraduates is crucial to reducing their adverse effects and enhancing students' coping mechanisms, resilience, and well-being (Slimmen et al., 2022; Predrelli et al., 2015). Self-worth erosion following failure leads to the risk of depression, as students believe this is evidence of personal inadequacy, rather than a challenge. This aligns with Orto et al. (2020), who found that academic failure is strongly associated with reduced self-worth and increased depressive symptoms among university students.

5.3.5 Services accessibility and institutional gaps

The present study highlighted the inaccessibility of services and institutional gaps, as evidenced by low visibility and missed appointments. A challenge to accessing mental health care due to the invisibility of institutional mental health services. As a result, missed appointments and delayed referrals to specialised care. This inconsistency highlights a service gap in mental health infrastructure, as other campuses lack such services. In line with Murali & Avudaiappan (2024), a university's mental health support tends to be relatively reactive, addressing issues only after they have emerged. This concurs with Zhai et al. (2025), who accentuate that despite the higher rates of clinically significant ADSI among medical students in the US, counseling services are still underutilised, with missed appointments and treatment indicating a systemic barrier.

A challenge to access mental healthcare due to the invisibility of institutional mental healthcare services. As a result, missed appointments and delayed referrals to specialised care. This inconsistency highlights a service gap in mental health care infrastructure, as other campuses lack such services. In contrast, students may miss appointments due to stigma, fear of judgment, or academic pressure, leading to a discontinuity of care (Siseho & Mahalie, 2025). The university setting presents an opportunity to improve mental healthcare (Osborn et al., 2022). Therefore, students who are aware of available mental health support provide positive feedback to service providers.

5.3.6 Informal network

One of the strongest forms of informal support is accessibility, in which students interact more frequently with non-mental health care professionals than with counsellors, making it easier to detect distress earlier. Peer support has been found to have a positive effect on the disclosure of students experiencing mental healthcare problems (Pointon-Haas et al., 2024). These vulnerable students are reached through various channels, including roommates, peer counsellors, and informal gatekeepers. Aligning with Lynch et al. (2023), informal sources of help play a crucial role in young people's access to professional care. These findings are supported by Hornsby et al. (2025), who reported that students benefit from peer counselling, underscoring the link between peer counselling and emotional regulation. However, Abdulraof (2023) contrasts these findings, stating that guidance counsellors themselves face challenges in providing comprehensive mental health care due to administrative burden and stigma.

5.4 THE PRACTICES OF MENTAL HEALTH SERVICES PROVIDERS IN EARLY DETECTION OF STUDENTS EXPERIENCING ADSI

This qualitative study aimed to explore the practices that expose the challenges mental health care providers face in the early detection of ADSI across Namibia's public universities. The Thematic analysis identified six major themes, revealing systematic gaps in the early detection of at-risk students and highlighting deficiencies in the university's existing mental health support framework. Social work and nursing are female-dominated; thus, 10 of these participants were female, while one male participant plays a pastoral care role. According to Secker & Williams (2024), low male representation in mental healthcare professions contributes to persistent stigma, a limited role model for male students, and reduced gender sensitivity for male students

5.4.1 Institutional gaps challenge the early detection

The study revealed a lack of mental healthcare services and expressed participants' desire for mental health professionals. The absence of formal protocols, screening tools, and on-campus professionals was identified as a critical barrier. While some campuses use validated tools like PHQ-9 and GAD-7, others rely on clinical history and informal questioning for mental healthcare screening. The lack of a standardised screening tool was noted across the participating campuses. The study's findings align with Zaib & Ali (2025), who state that higher education institutions need policies that address mental health, ensure support for every student, and value everyone. While this is true in this study, it is important to recognise that effective screening implementation requires standardised practice guidelines (Villarreal & Petersen, 2025). The Early Warning Model, established in 2024 by Quan in China, highlights the importance of early-warning and intervention mechanisms for addressing psychological health issues among college students.

5.4.2 Peer-led early identification mechanisms

Peer educators play a crucial role in identifying at-risk students because of their close connections with students on UNAM campuses. However, NUST campuses lacked peer educators during data collection. Peer relationships are essential for early detection of at-risk students, as solidarity helps reduce feelings of isolation and normalises peer support in building resilience among young adults (Segú-Odrizola, 2025). Involving academic staff in early identification improves the recognition of students facing mental health challenges. Yet, faculty and staff often felt unsure about how to support students with mental health needs, creating tension between academic and pastoral care (Ramlluggun et al., 2022). This gap was caused by the lack of clear guidelines and a disconnect between faculty and student support services in Namibia. Echoing the findings of Pyne (2022), it is emphasized that university policies and systems should establish clear regulations to support students' needs and foster strong collaboration with mental health professionals for consultation as needed.

5.4.3 Stigma and cultural beliefs affect help-seeking behaviours

Stigma around mental illness remains a key barrier to seeking help in the current study. Participants, especially males, fear labels, bullying, and lack of family support, discouraging treatment. This may be attributed to masculine norms and stigma that discourage them from emotional expression (Al Azdi et al., 2025; Carretta et al., 2023). This data also revealed that

most participants were in the 3rd year. This may be due to the seniority of academic progression and resilience, where participants wanted to share their coping strategies. Concurrent with Güden et al. (2024), who note that attitudes and fears hinder mental healthcare, with stigma being most prominent. Cultural and religious beliefs intensify stigma. Barnett et al. (2021) found that students avoid help due to stigma, uncertainty, and believing issues are not serious, reflecting low mental health literacy. Negash et al. (2020) report that students often believe problems can be improved without help, lack awareness of available services, prefer to solve issues independently, deny having problems, or opt for alternative care. Ebert et al. (2019) add that students feel more embarrassed discussing problems with friends (32.2%) than with health professionals. To counteract this, engaging religious leaders in mental health support and designing campaigns that challenge misconceptions and promote help-seeking behaviour.

Despite ongoing efforts, the accessibility and visibility of these services remain inadequate, with some campuses lacking mental healthcare professionals and healthcare services. Consistent with the findings of Nielsen et al. (2024), successfully building capacity among students, university staff, and faculty requires leadership, infrastructure development, organisational reforms, workforce enhancement, partnerships, and resource allocation. This approach highlights that mental health support should go beyond isolated initiatives and be integrated into all aspects of the university environment. The findings also support expanding outreach through psychoeducation campaigns and incorporating mental health awareness into academic curricula and orientation programs to increase student engagement. Although university environments have the potential to reduce the development of mental health issues, this preventive effect was not observed in a study conducted in the United Kingdom (Barnett et al., 2021).

5.4.4 Alcohol and drug abuse

Among some of the study participants, alcohol and drug misuse were identified within the university setting, affecting their academic success and increasing symptoms of anxiety and depression. This aligns with previous literature that among college students, alcohol use can worsen depression, impacting academic performance, while students use drugs and alcohol as a coping strategy (Burlaka et al., 2024; Kejriwal, 2025). Drugs and alcohol use disrupts young people's cognitive and emotional development, leading to accidents and death due to drug dependency (Paula et al., 2024). Concurrent with Burke et al. (2023), hazardous alcohol

consumption was associated with sexual violence towards female students by male students. People with good mental health are better able to handle stress, build positive relationships, and succeed both personally and academically (Mirbahaeddin & Chreim, 2024).

A good coping strategy can improve the experience of students affected by higher education institutions. However, students may resort to negative coping strategies. A study among nursing students found that distractions, including running, yoga, and reading, help them cope by dampening recurrent thoughts and worries, allowing them to disconnect from reality (Waterhouse & Samra, 2024). Nonetheless, smoking and alcohol use are associated with increased stress levels among nursing students in Manila, Philippines, thus strengthening education and awareness is absolutely needed among university students (Resano et al., 2023).

5.4.5 Collaborative and preventative activities

Although the public universities in Namibia face systemic challenges, it is essential to note that some other campuses are proactive in multidisciplinary collaboration, family engagement, and participation in Continuous Professional Development (CPD). Collaboration between support services and families offers a protective and promotive factor, leading to better social, emotional, physical, and academic outcomes (Bachman et al., 2024). Although the professionals are passionate about their work, fragmented service provision creates serious challenges for student support and accountability, thereby compromising service delivery. According to Kisch et al. (2014), college students' mental health needs have increased drastically, leaving mental healthcare professionals struggling to meet the demand.

Academic staff involvement in early detection improves the recognition of students experiencing mental health challenges. However, faculty and staff faced uncertainty about how to support students with mental health needs, leading to tensions between academic and pastoral care (Ramlluggun et al., 2022). This disparity was due to a lack of guidelines and a severed connection between faculty and student support services in Namibia. Mirroring Payne's (2022) findings, it is emphasised that university policies and systems must regulate staff support for students' needs, and strong collaboration with mental health experts is necessary for consultation as needed.

Collaboration between support services and families offers a protective and promotive factor, leading to better social, emotional, physical, and academic outcomes (Bachman et al., 2024). However, there is limited evidence on the most effective ways to support students, consistent

with the findings of Bennett et al. (2024), who report that existing evaluations predominantly focused on counselling with low intervention intensity, such as a lack of mental health support and welfare services.

5.5 MERGING OF THE STUDY FINDINGS ACROSS ALL OBJECTIVES

The integration of quantitative and qualitative findings offers a comprehensive understanding of anxiety, depression, and suicidal ideation (ADSI) among undergraduate students in Namibia. Quantitative results indicated a high prevalence of ADSI, with academic pressure identified as the most significant predictor, alongside contributory factors such as adverse childhood experiences, gendered expectations, and limited access to mental health services. These findings align with qualitative insights, wherein students articulated emotional distress, psychological exhaustion, and overwhelming academic demands as core components of their mental health challenges.

5.6 CHAPTER SUMMARY

This chapter discussed the study findings, which reveal a silent mental health crisis developing among university students, characterised by high rates of anxiety, depression, and suicidal ideation. Students experience emotional distress, cultural silencing, and institutional gaps, including infringements on mental health. The chapter's findings reveal that academic stress, socio-cultural influences, and institutional gaps interact to drive ADSI among students, necessitating an integrated early detection and intervention model. Health-seeking behaviours are hindered by stigma and inconsistent access to services, along with a shortage of mental health service providers. This insight directly proved the need for an early detection model for anxiety, depression, and suicidal ideation within the Namibian public universities. Qualitative findings further enriched the understanding by highlighting coping mechanisms, including avoidance, mindfulness, and reliance on peer support. However, avoidance coping was found to exacerbate long-term psychological distress. Additionally, institutional and systemic gaps were identified, including the absence of standardised screening protocols, limited mental health personnel, poor service visibility, and fragmented support systems across campuses.

The merged findings demonstrate convergence between datasets, confirming that academic stressors, socio-cultural influences, and institutional limitations collectively shape students' mental health outcomes. Importantly, both strands emphasise the urgent need for early

detection mechanisms, integrated mental health services, and contextually relevant interventions. These insights directly informed the development of the Early Detection Model (EDM), which addresses the identified gaps through structured screening, collaborative care, and strengthened institutional support systems.

CHAPTER SIX

CONCEPTUAL FRAMEWORK OF THE STUDY AND DEFINITIONS OF CONCEPTS AND STATEMENTS

6.1 INTRODUCTION

Chapter five outlined the qualitative objectives of this study and discussed the integration of its findings. In this chapter, the conceptualisation of the study findings is derived from the study objectives. Chapter six presents the key concepts and statements, followed by the integration of the phase 1 study results. This chapter focuses on phase two, which will lay the foundation for developing the early detection model.

6.2 IDENTIFICATION OF CENTRAL CONCEPTS

The findings of the current study serve as the building blocks for the central concepts. The model was built using the identified concepts. After merging the study findings, the central concepts that emerged were early detection, anxiety, depression, and suicidal ideation, as listed in Chapter 5. Early detection of these mental health conditions is far from reality, as the institution lacks mental health screening tools for early detection measures. As a result, undergraduates continue to suffer from mental health issues without proper diagnosis, which adversely affects their academic output.

6.3 DEFINITION OF CENTRAL CONCEPTS

Phase 1: Primary concepts that constitute the central concepts

Based on the integrated quantitative and qualitative findings across objectives 1, 2, and 3, five key concepts emerged as the foundation of the model.

The first concept was psychosocial and environmental risk factors, including academic pressure, family conflicts, cultural silencing, childhood trauma, socioeconomic vulnerability, and substance use, which contributed to student psychosocial distress. Secondly, student psychological distress vulnerability was a second concept, which amplifies ADSI, resulting from the interaction of multiple psychosocial stressors. The third concept is the student coping mechanism, in which students employ maladaptive coping strategies to manage psychological distress. These included avoidance, emotional masking, mindfulness practices, peer support, and spiritual coping. The

fourth concept is evidence-based practice used by mental health professionals in addressing students' mental health needs, including screening, counselling, crisis intervention, referral systems, and psychoeducation. Finally, an institutional early detection and support system, representing organisational-level mechanisms within universities, that facilitates early identification, referral, and support for students experiencing ADSI.

Establishing the relationship among concepts

Phase 2: Establishing relationships among concepts

This model development process focused on establishing relationships among the key concepts identified during Phase 1. The purpose of this phase was to determine how the concepts interact and influence one another within the context of the early detection and support of undergraduate students experiencing anxiety, depression, and suicidal ideation (ADSI). The relationships among the concepts were established by integrating and interpreting quantitative and qualitative findings, with support from relevant literature.

The analysis revealed that psychosocial and environmental risk factors, including academic pressure, family conflict, cultural expectations, socio-economic challenges, and childhood trauma, contribute to students' psychological vulnerability, manifested through anxiety, depression, and suicidal ideation. In response to this vulnerability, students adopt various coping mechanisms, which may be either adaptive (e.g., peer support, mindfulness, emotional regulation) or maladaptive (e.g., avoidance, emotional masking, substance use). The model further identifies the role of mental health service providers, whose practices, such as mental health screening, counselling, crisis intervention, and referral systems, facilitate the early identification and management of students experiencing psychological distress. These practices are supported by institutional early-detection and support systems, including accessible campus mental health services, awareness programs, and integrated referral pathways.

The relationships among these concepts form a systematic pathway, whereby psychosocial stressors influence student vulnerability, coping responses mediate the impact of distress, and institutional mental health practices support early detection and intervention. These interconnections provide the structural foundation for the proposed model.

Chin and Kramer (2018) define a concept as a complex formulation of experience. The concepts emerge from people's experience of the world around them. The challenges and barriers faced

by the student and the mental health provider are within the public university sector. The identified concepts were early detection, anxiety, depression, and suicidal ideation, which will be defined independently, using dictionaries, thesauruses, published peer-reviewed articles, and the internet, to get multiple interpretations of each concept. Early detection is the central focus of the current study and is therefore considered significant.

The development of relational statements followed three steps: statement synthesis, statement derivation, and statement analysis. Statement synthesis involved integrating quantitative and qualitative findings to identify key concepts. Statement derivation involved formulating relational statements explaining how the concepts interact within the model. Finally, statement analysis ensured logical coherence and alignment between the statements, empirical findings, and theoretical literature (Chinn & Kramer, 2018)

Early detection

According to the (2007) Oxford Dictionary of Public Health, early detection is the prompt identification of incipient disease and, by implication, the timely intervention to arrest, treat, and cure, including environmental, social, and behavioural hazards to health. This may refer to the use of screening tools, such as questionnaires, interviews, physical examinations, and laboratory tests, to detect a condition before it becomes severe. In the context of primary health care, early detection may be used to identify conditions such as cardiovascular disease, cancer, and cervical cancer through screening tests like Pap smears and breast examinations.

According to the APA Dictionary of Psychology (2013), early detection means identifying signs and symptoms of a condition at an early stage, before it becomes more severe or progresses. The goal is to initiate early interventions to improve treatment outcomes.

According to the Cambridge Dictionary, detection means the act of noticing or discovering something early, at the beginning of a period, or before the usual expected or planned time. Together, “early detection” implies noticing or discovering something, often a health condition, sooner than usual, enabling timely intervention.

Subject definition: Early detection

According to Chacheda et al. (2019), early detection is critical for rapid intervention, which can help prevent the disorder from escalating.

According to Kaywan et al. (2023), it is essential to develop a mass screening integrative approach that identifies people with depression at an early stage to avoid a potential crisis.

Context definition of “early detection.”

The contextual definition defines how early detection measures would facilitate early identification of students experiencing mental health challenges. Early detection through screening would be an ideal approach for identifying and supporting students experiencing issues. Early detection in context has the following barriers:

- Lack of a screening tool
- Lack of mental health services
- Lack of mental health services provision
- Inadequate mental health providers
- Stigma associated with mental illness
- Delayed appointment
- Delayed diagnosis

As listed above, there are several barriers to early detection of students experiencing mental health challenges because of the shortage of staff and fragmented service provision, causing burnout and compromised care. The indications and support currently given are reactive rather than proactive, meaning intervention is provided only when the condition has worsened.

Essential and related criteria for the concept “early detection.”

Early detection involves identifying diseases or health risks at an early stage, often through screening, environmental monitoring, or behavioural assessment criteria.

Early detection is a critical process that enables the screening, assessment, recognition, diagnosis, and identification of students experiencing mental health conditions, supported by student screening and adherence to ethical data-collection principles. The service providers thus far should raise mental health awareness within university settings to create an enabling environment towards the reduction of stigma and discrimination of mental illness. This will enhance mental health screening, early detection, and support of students experiencing mental health conditions.

Table 13: Subject definition of early detection

Concept	Subject Definition	Essential Attributes / Criteria	Contextual Factors (Barriers & Enablers)	Related Concepts	Concept Reduction
Early Detection	Early detection refers to the prompt identification of a condition at its initial stage to enable timely intervention and prevent progression (Oxford Dictionary of Public Health, 2007; APA, 2013; Cambridge Dictionary). This study involves identifying early signs of mental health challenges (e.g., anxiety, depression, suicidal ideation) among students to enable rapid support and intervention (Chacheda et al., 2019; Kaywan et al., 2023).	• Screening and assessment of students • Recognition of early symptoms • Timely identification of mental health risks • Early diagnosis and referral • Use of tools (questionnaires, interviews, screening instruments) • Promotion of mental health awareness	Barriers: • Lack of screening tools • Inadequate mental health professionals • Delayed appointments and diagnosis • Fragmented service provision Enablers: • Availability of screening systems • Institutional support and policies	• Screening • Mental health assessment • Diagnosis • Early intervention • Mental health awareness • Risk identification	Early detection can be reduced to the timely identification of mental health risks through screening and assessment, enabling early intervention and preventing progression.

Reduction of identified criteria of the concept “early detection”

The reduction in the number of identified criteria stems from the definitions used by the researcher: the Cambridge Dictionary, the Medical Dictionary, the Thesaurus, and research methodology glossaries.

Table 14: Reduction of identified criteria of the central concept for early detection

Dictionary Source	/	Reduction Synonym	/	Criteria	Example used in the study
Oxford Dictionary	English	Detection, Recognition		Focuses on the act of discovering or identifying something. Reduction removes “early” but implies timeliness in context.	“Detection of ADSI symptoms among students.”
Cambridge Dictionary		Identification, Diagnosis		Emphasises recognizing or naming a condition. Reduction shifts toward clinical/academic precision.	“Identification of risk factors for ADSI.”
Medical Dictionary (Mosby’s / Dorland’s)		Screening, Early diagnosis		In health contexts, reduction often becomes “screening” or “diagnosis,” stressing preventive action.	“Screening for anxiety and depression.”

Subject definition of Help-Seeking Behaviours

Help-seeking behaviour refers to the actions individuals take to obtain assistance, advice, or support from others when experiencing difficulties, stress, or health-related concerns. According to the American Psychological Association Dictionary of Psychology, help-seeking behaviour is defined as: “the process of actively seeking assistance from other people to address problems or distress (PA, 2023)

Help-seeking is: “the act of asking for support, advice, or information when needed (Cambridge Dictionary, 2015). Similarly, “the act of trying to obtain assistance from others when facing difficulties or challenges, (Oxford Learner’s Dictionaries, 2005)

In mental health research contexts, help-seeking behaviour is often conceptualised more broadly as: the intentional effort to access formal sources (such as counsellors, psychologists, nurses, or teachers) or informal sources (such as friends, peers, or family members) for support in managing emotional, psychological, or social problems (Rickwood et al., 2005)

This concept aligns with constructs of the Health Belief Model, which posits that individuals are more inclined to engage in health-related behaviours when they perceive benefits of acting and when barriers to action are manageable.

Subject definition of anxiety

Anxiety, according to the Oxford Academic Dictionary (2005), is defined as the state of feeling nervous or worried that something bad will happen. In this context, waiting for the examination results is highlighted as the greatest state of anxiety.

According to the Cambridge Dictionary, anxiety is an uncomfortable feeling of nervousness or worry about something that is happening or might happen.

With reference to the APA Psychological Association. (2013), anxiety is defined as an emotion characterised by apprehension and somatic symptoms of tension in which an individual anticipates impending danger, catastrophe, or misfortune.

According to Thesaurus, anxiety is an uneasy state of mind, usually over the possibility of anticipating misfortune, of trouble:

Anxiety represents both a personal emotional experience and a measurable psychological construct, making it crucial for the early detection model, as it often precedes depression and suicidal ideation. According to Evans et al. (2005), anxiety refers to multiple mental and psychological phenomena, including a person's conscious state of worry over a future unwanted event or fear of an actual situation. According to Stein et al. (2021), anxiety is the most common mental health disorder, characterised by excessive fear, anxiety, and avoidance of perceived threat.

Context definition of anxiety

Anxiety in context is an unpleasant state of uneasiness, nervousness, or apprehension that arises in specific situations, such as public speaking, examinations, and unfamiliar environments (WHO, 2025). A particular circumstance in each setting triggers context anxiety. This happens due to intense fear and worry that are excessive, very difficult to control, and may interfere with daily activities.

The definition of anxiety in context could include the following:

- Performance anxiety tied to the audience evaluation
- Situational anxiety triggered by a specific event

The evidence drawn from the study outcome highlighted that students experience anxiety within their academic settings, based on examination experience. Certain situations, such as class presentations, were also identified as triggers for anxiety episodes.

Essential and related concepts of anxiety

Anxiety is defined by WHO (2025) as a condition where fear and worry are intense, excessive, and challenging to control, accompanied by physical tension and other behavioural and cognitive symptoms. This definition emphasised that anxiety is not just a normal emotional response, but it becomes a disorder when excessive, persistent, and impairing, conditions that prevent students from academic achievement. The study established the correlations between anxiety and depression in a correlational matrix (Table 4.6). The following section will define the concept of depression as part of the central concepts.

Reduction of term anxiety

A reduction of the term “anxiety” is substituted by different terms like worry, concern, unease, apprehension, or nervousness, depending on the dictionaries consulted in Table 16.

Table 15: Reduction of anxiety as central concept

Dictionary / Source		Reduction / Synonym	Criteria	Example use in a study
Thesaurus.com		Angst, apprehension,	Highlights tension and dread;	“Angst was common
		disquiet, dread, jitters, restlessness	reduction leans toward emotional agitation.	among undergraduate students.”
Oxford Dictionary	English (general usage)	Worry, concern, nervousness	Defines anxiety as mental distress or uneasiness. Reduction simplifies to everyday terms.	“Worry about finances, failing contributed to ADSI.”
Cambridge Dictionary		Nervousness, unease, apprehension	Emphasises anxiety as nervous discomfort or fear of future events.	“Apprehension before clinical placements was reported.”

Subject definition of Depression

Depression is part of the condition under investigation, which can negatively affect the students' behavioural function towards education and academic performance. Oxford Dictionary, APA, Thesaurus, and Cambridge Dictionaries will define the concepts.

According to the Oxford Dictionary, depression is a medical condition in which a person feels sad, anxious, and hopeless, and often has physical symptoms such as being unable to sleep. A clinical depression is a diagnosable disorder with emotional and physical symptoms. Combining those difficulties, depression is both a clinical disorder and a subjective emotional state, making it a central concept in the Early Detection Model (EDM).

WHO (2025), depression disorder, known as depression, is a common mental disorder that involves depressed mood or loss of pleasure or interest in activities for a long time.

Context definition of depression

Table 16: Context definition of depression

Concept	Context Definition	Contextual Dimensions	Implications in Student Population	Concept Reduction
Depression	Depression becomes clinically significant when symptoms are persistent, excessive, and interfere with daily functioning. It is influenced by various contextual factors, including social and academic environments.	Social Context: • Feelings of hopelessness or low mood • Social isolation • Relationship breakdown Academic Context: • Financial stress • Emotional distress linked to academic pressure • Uncertainty about future outcomes • Lack of institutional support	• Reduced academic performance • Decreased motivation and engagement • Barriers to learning and participation • Increased vulnerability to mental health challenges (Talley, 2025)	Depression can be reduced to: A persistent state of emotional distress characterised by low mood and impaired functioning, influenced by social and academic stressors.

Context: It becomes diagnosable when symptoms are persistent, excessive, and interfere with daily life.

Social context: depression may be described as low or hopeless, arising from social isolation, relationship breakdown, or financial stress.

Academic context: Among the student population, depression is often defined as emotional distress, from academic pressure, uncertainty about the future, or lack of institutional support, which is framed as a barrier to learning and performance (Talley, 2025).

Reduction of the term depression

Depression reduction and its synonyms vary depending on whether it is emotional, psychological, or economic in nature.

Table 17: Reduction of identified criteria of the central concept of depression

Dictionary / Source	Reduction / Synonym	Criteria / Nuance	Example Use in the Study
Oxford English Dictionary	Low spirits, despondency, gloom	Frames depression as a general emotional state of sadness or discouragement.	"Students reported low spirits during exam periods."
Cambridge Dictionary	Sadness, unhappiness, misery	Simplifies depression into everyday emotional terms, emphasizing affective experience.	"Unhappiness was common among first-year students."
Thesaurus.com	Hopelessness, sorrow, grief, despondency	Provides synonyms with greater emotional intensity, often associated with loss or despair.	"Hopelessness correlated with suicidal ideation."

Subject definition: Suicidal ideation

Suicidal ideation is broadly defined as having thoughts, ideas, or a preoccupation with ending one's own life, according to the Oxford dictionary, Harris & White. (2018), suicidal ideation is having thoughts about committing suicide, commonly associated with depression and bipolar disorders. Suicidal ideation includes a formulated plan, though most individuals experiencing suicidal ideation do not carry out those plans. Suicidal ideation is defined by the Cambridge dictionary (Brown et al., 2013) as an activity, an idea in mind, and suicidal ideation. Taking these drugs may increase suicidal ideation. This dictionary frames suicidal ideation as the mental activity of forming ideas about suicide.

The WHO 2025 did not define suicidal ideation separately, but framed it within suicide prevention, as for any suicide, many more people attempt suicide. A prior suicidal attempt is an important risk factor for suicidal behaviour in the general population.

Context definition of suicidal ideation

In context, suicidal ideation is recognised as a significant factor for suicidal attempts. According to the APA Dictionary of Psychology (2013), thoughts about or preoccupation with killing oneself are often synonymous with a major depressive episode. These definitions will strengthen the Early Detection Model by showing suicidal ideation as both a clinical symptom and risk marker requiring early intervention.

Suicidal ideation is not a uniform concept, but varies depending on setting, circumstances, and perspective; here, it refers to thoughts, preoccupation, or planning about ending one’s own life. Suicidal ideation is associated with depression, anxiety, and bipolar disorders as risk factors for suicidal ideation. In an asocial context, suicidal ideation may arise from social isolation, stigma, bullying, or family conflicts, as reflected in Table 4.6. Based on academic context, suicidal ideation is often linked to academic stress, financial hardship, and lack of support, which become a barrier to learning and participation that requires institutional mental health interventions. A cultural context views suicidal ideation as a taboo subject, leading to deep concealment; others may frame spiritual issues as discussed in Chapter 4 of this study.

Reduction of the concept of suicidal ideation

Reduction of suicidal ideation is substantiated by several concepts involved in suicidal thoughts and suicidal behaviours, which an individual experiences as outlined.

Table 18: Reduction of identified criteria of the central concept of suicidal ideation

Dictionary Source	/	Reduction / Synonym	Criteria	Example use in the study
Oxford English Dictionary		Suicidal thoughts, contemplation of suicide	Defines ideation as the formation of ideas; reduction simplifies to “thoughts” or “contemplation.”	“Students reported suicidal thoughts during high-stress periods.”
Cambridge Dictionary		Thinking about suicide, suicide-related thoughts	Frames ideation as the act of thinking or considering suicide.	“Thinking about suicide was measured using C-SSRS items.”
Thesaurus.com		Suicidal thoughts, self-destructive ideas	Provides synonyms that reduce ideation into everyday phrasing.	“Self-destructive ideas were noted among vulnerable students.”

6.4 THEORETICAL FRAMEWORK THE GUIDE THE MODEL DEVELOPMENT

To conceptualise the results, the researcher employed three guiding theoretical frameworks. First, the e-IP-SDM model (Légaré, 2010) was adopted to provide a structured approach to health decision-making. The core idea of IP-SDM is to promote collaborative decision-making among

the health professionals, the patient, and the stakeholders. Student mental health detection requires the involvement of multiple stakeholders, including lecturers, student counsellors, nurses, and student leaders. Furthermore, this integration enhances shared responsibility in identifying and managing mental health concerns among university students. The constructs of IP-SDM strengthen the referral and intervention process, ensuring a holistic approach and preventing students from being left unsupported.

Second, the (Health Belief Model Rosenstock, 1974) was integrated as the overarching theoretical lens, guiding all stages of the thesis. The student's willingness to engage in screening or counselling depends on their perceived risks of ADSI. With the HBM construct, awareness campaigns will reduce the fear of disclosure. On the other hand, the HBM also provides a behavioural lens for understanding why students may or may not participate in early detection initiatives.

Knowledge Development Theory, as outlined by Chinn and Kramer (2018), was incorporated to inform the interpretation and conceptualization of the findings. This theory provided a structured way to conceptualize and generate nursing- and health-related theory, focusing on clarity, consistency, simplicity, and applicability. The central concepts were anxiety, depression, coping mechanisms, and referral pathways. Figure 14 shows how these theories were used in this study. Theory generation supported the conceptual framework on how the variables were operationalised.

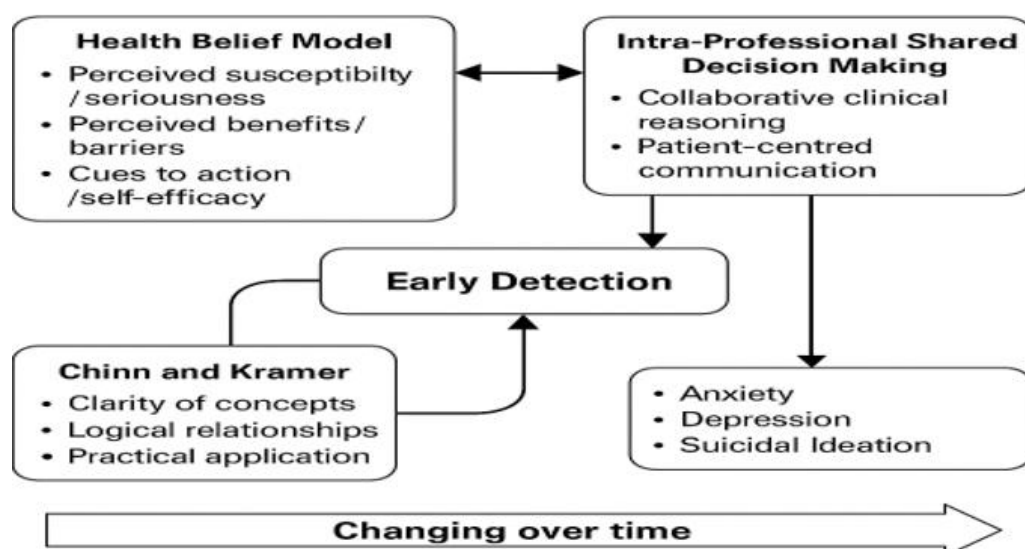


Figure 10: Theoretical framework underpinning the model development

This integrative framework in Figure 14 illustrates how early detection of ADSI is shaped by HBM (individual perception and motivation, IP-SDM, collaborative clinical reasoning and communication) and by Chinn and Krammer's theory development (conceptual clarity, logical coherence, and practical relevance). Positioned centrally, early detection serves as a conduit through which theoretical constructs translate into improved mental health outcomes, with the entire process evolving dynamically over time.

Synthesis of multiple theories in the model

The synthesis of multiple theoretical frameworks underpinned the integrative foundation of the Early Detection Model (EDM) by demonstrating how complementary theories collectively strengthen its conceptual and operational coherence. Chinn and Kramer's theory generation framework provided the methodological foundation for model development, ensuring systematic clarification of concepts, precise definitions of constructs, relational propositions, and structural organisation. This framework enhanced conceptual clarity and ensured scholarly rigor in constructing the model.

The Interprofessional Shared Decision-Making (IP-SDM) model contributed a collaborative dimension by emphasising coordinated engagement among key stakeholders, including nurses, social workers, counsellors, psychologists, students, and families within the university setting. This strengthened the model's responsiveness and reinforced interdisciplinary accountability in early identification and intervention processes.

In addition, the Health Belief Model (HBM) provided behavioural insights into students' engagement with early detection initiatives. By addressing constructs such as perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy, the HBM provided a theoretical explanation for help-seeking behaviour, disclosure, and participation in screening programmes.

The integration of these theoretical perspectives created a coherent, contextually relevant, and academically robust framework for the Early Detection Model of student mental health in Namibia. This multi-theoretical synthesis not only strengthened the model's internal logic but also enhanced its explanatory power, practical applicability, and scientific credibility.

6.5 CONCEPTUAL FRAMEWORK OF THE MODEL

This framework combines the key theories and concepts that guide the model's development. Additionally, including these theorists within a single framework ensures it is grounded in scientific principles. Based on IP-SDM (Legare, 2010), this conceptual framework covers the actor, assessment, environment, dynamics, and outcome, as illustrated in Figure 15 below.

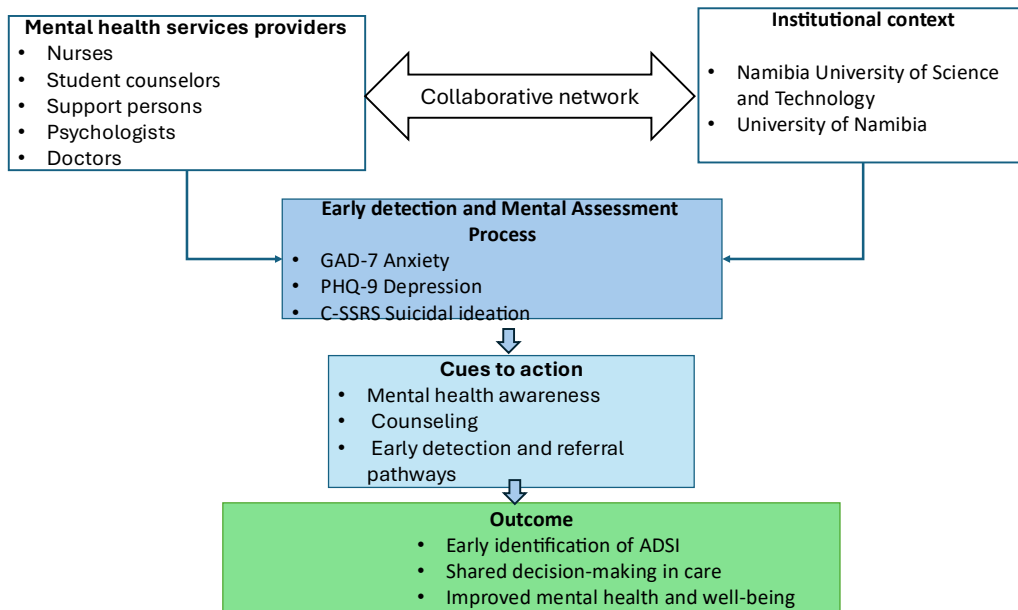


Figure 11: Conceptual framework to guide the model development

The Health Belief Model explains how individuals decide to seek early care or screening by focusing on their beliefs about the vulnerability and seriousness of the condition within the context of ADSI. Perceived susceptibility is the student's belief that they are at risk of emotional distress. The IP-SDM model involves relevant professionals when shared decision-making is needed for the patient's health.

6.6 CHAPTER SUMMARY

This chapter explained the key concepts for model development and then interpreted the study's findings. The relationship statements were created based on the identified central concepts. The study used the HBM and IP-SDM models, which together formed the conceptual framework; Chapter Seven describes, develops, and evaluates the model.

CHAPTER SEVEN

DEVELOPMENT OF EARLY DETECTION MODEL, EVALUATION, AND OPERATIONALISATION

7.1 INTRODUCTION

This chapter introduces the developed model for early detection of anxiety, depression, and suicidal ideation, along with its evaluation and operationalisation. The context was derived from the study's findings, which informed the concepts guiding the model's development and aligned with the study objectives. The model was evaluated, and its operationalization was defined.

7.2 MODEL DEVELOPMENT

The conceptual model was developed following Chinn and Kramer's theory development framework, which emphasises systematic concept clarification, relational propositions, structural organisation, and logical coherence. Guided by this framework, the Early Detection Model (EDM) was created to explain the early identification and response to anxiety, depression, and suicidal ideation (ADSI) among students in public higher education institutions in Namibia.

The EDM is novel in its design and is contextually adapted for the higher education environment. In line with Chinn and Kramer's approach, key concepts were carefully identified, clearly defined, and organised around the core phenomenon of early detection of ADSI. Relationship statements were formulated to demonstrate how these concepts interact within the model. Furthermore, the model was structured to ensure logical flow and directional relationships between components, reflecting theoretical coherence and internal consistency.

The prominent indicators that informed the development of the model were derived from student-level inputs, particularly evidence reflecting the burden of anxiety, depression, and suicidal ideation (ADSI) among university students. These inputs are addressed through primary detection and response agents within the university setting, including nurses, social workers, counsellors, and psychologists. At the institutional level, inputs include the availability of trained mental health professionals and validated screening tools responsible for systematic student assessment.

The early detection process is implemented through structured screening procedures that use standardised tools (GAD-7, PHQ-9, and C-SSRS) to identify mental health issues at an early stage.

This screening is part of a systemic risk stratification system, in which students are categorised into minimal, mild, moderate, or severe risk levels. The model's process includes primary detection and hypothesis testing to explore links between ADSI and variables such as age, sex, and academic year. These connections were confirmed by statistically significant results, thereby enhancing the model's explanatory power.

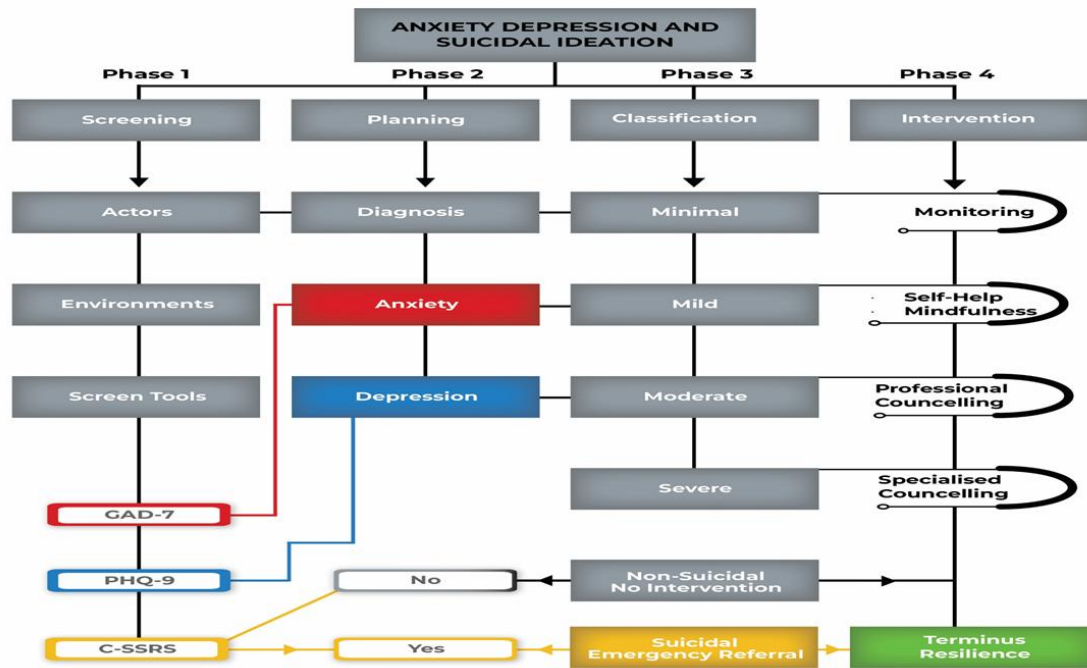
The model's outputs are conceptualised at three levels. Immediate outputs include mental health awareness campaigns, facilitation of disclosure, and stigma-reduction initiatives, all of which are enshrined in a conceptual framework that guides model development. Intermediate outputs involve integrated shared decision-making processes and family engagement to support student care. Long-term outcomes focus on activating appropriate intervention pathways and preventive strategies aimed at reducing the progression and severity of anxiety, depression, and suicidal ideation within the university population

7.3 THE DESCRIPTION OF THE MODEL

The overview was prepared based on Chinn and Krammer (2018), including six proposed descriptive strategies: the purpose, concepts, definitions of the central concepts, and the relationship statement, and the model's assumptions, for the early detection and support of students experiencing ADSI. The development of the EDM model followed the inductive theory-generation approach suggested by Chinn and Kramer, which emphasises the emergence of concepts from empirical data. In this study, concepts related to early detection of ADSI were first identified through both qualitative and quantitative analyses. These concepts were then interpreted and refined using established theoretical perspectives to strengthen the conceptual coherence of the emerging model.

The model description phase explains the model's structure, components, and connections. This includes a detailed explanation of how early detection is enabled through interaction among students, mental health providers, and institutional systems. The explanation ensures the model's clarity, logical flow, and real-world usefulness in university settings. The model is presented with a visual diagram that shows how the parts are connected, and the explanation describes how the model works to facilitate early detection of ADSI. Finally, the model was evaluated using established criteria to confirm its scientific validity, clarity, and usefulness.

Early Detection Model



Figure

12: Early detection Model for anxiety, depression, and suicidal Ideation: *Siseho, 2025*

The model in Figure 16 demonstrates a structured process for the early detection and intervention of ADSI, integrating screening, planning, classification, and intervention within a responsive system.

The purpose of the model

The Early Detection Model (EDM) for Anxiety, Depression, and Suicidal Ideation (ADSI) was developed. The insight of this model was derived from the Health Belief Model which helped explain how students' perceptions of susceptibility, severity, benefits, and barriers influence their willingness to recognise symptoms and seek support for mental health concerns.

The Interprofessional Shared Decision-Making Model provided a framework for understanding how collaborative decision-making among students, counsellors, and other stakeholders contributes to identifying and managing mental health risks.

Together, these theoretical perspectives functioned as interpretive lenses that supported the conceptualisation of the EDM model. Although the concepts originated inductively from empirical findings, the theories facilitated explanations of the relationships among them and strengthened the model's theoretical foundation.

The purpose of this model is to show how universities can identify and support students experiencing ADSI. It outlines a step-by-step process from screening, planning, and diagnosis to intervention and the outcome. Early detection aims to improve students' mental health outcomes through regular screening with validated tools, including the PHQ-9, GAD-7, and C-SSRS. Universities can use the EDM to improve health-seeking behaviours. Better collaboration among stakeholders enhances mental health results. Universities can embed this model into students' dashboards to make it more user-friendly. Building capacity for long-term sustainability requires ongoing training for nurses, student counsellors, academic staff, and peer educators. Developing mental health policies for public universities is essential to formalize ethically grounded screening practices.

The structure of the model

The model is structured as an Inputs-Process-Feedback system, designed to facilitate early detection and management of anxiety, depression, and suicidal ideation (ADSI) among undergraduate students within public university settings in Namibia.

Phase 1: Screening aimed at early detection through health-seeking behaviours, referring to actions taken by students to obtain assistance when experiencing psychological distress or mental health concerns. When a student goes through mental health issues, they can seek help from nurses, s

- Input

The input component comprises contextual and influencing factors derived from both quantitative and qualitative findings. These include:

- Student-related risk factors such as academic pressure, prior trauma, and gendered expectations
- Institutional constraints, including the absence of standardised screening protocols and limited mental health professionals
- Barriers to help-seeking, such as stigma, cultural beliefs, and poor service visibility

- Inconsistent availability and utilisation of mental health services across campuses

These inputs form the foundation upon which the model operates, highlighting the need for a structured and responsive early detection system

Process

The process represents the core operational component of the model and is organised into four sequential and interrelated phases:

Phase 1: Screening

This phase involves the systematic identification of students at risk of ADSI using validated screening tools (e.g., C-SSRS, PHQ-9, GAD-7) and structured engagement with trained personnel. It addresses the current gap in informal and inconsistent identification practices.

Who is involved?

The first step in this model is screening students for mental health conditions. The actors in this context are the student counsellors, nurses, and psychologists. This will be conducted at public universities, which is the environment.

Assessment tool

- C-SSRS

Using C-SSRS, students will be screened for suicidal ideation. Any “Yes” response is a point of referral, as there is a thin line between active passive suicidal ideation and active suicidal ideation. The referral logic here had to be activated within 48-72 hours, with accurate documentation of the referral protocols.

- GAD-7

GAD-7 is a validated screening tool for generalised anxiety that has stratified scoring, ranging from mild 5-9, moderate (10-14, and severe (>15). This screening will guide the service provider on how to handle the participant's score, as mild is self-help, moderate is psychoeducation, and severe is formal counselling

- PHQ-9

The use of PHQ-9 was adopted for its scientific measurement of depression symptoms. It also uses a four-point Likert scale and stratified scoring, with mild, moderate, and severe classifications (see Table 7.3).

Population

This EDM is intended for use by mental health care providers at public universities in Namibia as a guide to collecting data from students. The students are the recipients of the screening. Service providers are responsible for implementing proactive mental health screening to ensure early detection and support for students experiencing ADSI. The service provider ensures that students have regular follow-up until self-efficacy and resilience are fully established.

Phase 2: Planning

Following screening, this phase focuses on decision-making regarding appropriate care pathways. It involves multidisciplinary collaboration among healthcare providers, academic staff, and peer supporters to determine the level and type of support required.

Who is involved?

Primary responsibility lies with counsellors, nurses, and support persons. These team members are responsible for interpreting the results, which will determine the level of care and appropriate support for the student. The supporting role lies with academic staff to identify academic-related stressors. The university support services coordinated referrals and enhanced accessibility of mental health care. Students' willingness to seek help should be considered in decision-making.

Table 19: Planning Phase in the model

Component	Description	Key Stakeholders Involved	Roles and Responsibilities
Purpose of Phase	To determine appropriate care pathways based on screening results	Multidisciplinary team	• Interpret screening results • Plan appropriate interventions
Decision-Making Process	Collaborative process to identify the type and level of support required	Counsellors, nurses, support persons, academic staff, peer supporters	• Joint evaluation of student needs - And intervention strategies
Primary Responsibility	Clinical and psychosocial assessment and planning	Counsellors, nurses, support persons	• Interpret screening outcomes, determine severity level, and recommend appropriate care and referrals
Supporting Role	Identification of contributing academic stressors	Academic staff	• Identify academic challenge, provide academic support input
Coordination of Services	Ensuring access to appropriate mental health services	University support services	• Coordinate referrals and ensure continuity of support
Student Involvement	Inclusion of student preferences in care decisions	Student	• Express willingness to seek help, and participate in decision-making

Phase 3: Classification

In this phase, students are categorised based on the severity and urgency of their mental health condition (e.g., mild, moderate, severe risk). This classification informs prioritisation and ensures that high-risk cases, particularly those involving suicidal ideation, receive immediate attention

Who does the classification?

The same group as screening: nurses, student counsellors, and support persons. The planning phase is where the actors will classify students' data:

Table 20. Classification Phase of the Model

Variable	Category	Score Response	Range	/
Anxiety Symptoms	Minimal	0–4		
	Mild	5–9		
	Moderate	10–14		
	Severe	≥15		
Depression Symptoms	Minimal	0–4		
	Mild	5–9		
	Moderate	10–14		
	Severe	≥15		
Suicidal Ideation	Yes	Presence of suicidal thoughts		
	No	Absence of suicidal thoughts		

The student will be classified as having minimal, mild, moderate, or severe symptoms. This stage indicates that early detection and support for students experiencing ADSI will be achieved. Service providers are expected to adhere to the screening tools and guidelines outlined in this model. These will lead to informed decision-making, foster self-efficacy, and enable the student to make informed choices about their mental health.

Positive mental health and reduced stigma are anticipated outcomes of this model. The rights and dignity of participants will be restored. Universities should disseminate information through notice boards and ongoing mental health awareness campaigns, thereby reducing the stigma linked to mental illness. The support provided may enhance mental health-seeking behaviour and help retain resilient students. Depending on the severity, the appropriate intervention will be administered.

Phase 4: Intervention

The intervention phase represents the implementation of targeted strategies to address identified cases of anxiety, depression, and suicidal ideation (ADSI). Beyond immediate symptom management, this phase is central to building student resilience, ensuring not only recovery but also long-term psychological well-being.

Who is involved?

This phase is initiated following classification and a multi-disciplinary student-centered approach. The key interventions included the model:

Table 21: Interventions Phase in the EDM Model

Symptom Level	Description / Response	Interventions / Support Required
Minimal Symptoms	Students show minimal distress but require observation	• Monitoring by peers • Monitoring by academic staff • Early identification for potential intervention
Mild Symptoms	Students begin to experience noticeable distress	• Mindfulness techniques • Breathing exercises • Grounding techniques • Peer support initiated
Moderate Symptoms	Symptoms interfere with daily functioning and require support	• Nurses • Peer supporters • Support persons
Severe Symptoms	Significant distress requiring professional intervention	• Student counsellors • Psychologists • Medical doctors
Suicidal Ideation (Reported)	Response based on level of risk	• High risk: Emergency referral • Non-suicidal risk: Structured support required • No risk: Routine care and monitoring

Student counsellors, psychologists, and medical doctors play a vital role in supporting students throughout the mental health care process. During the classification phase, suicidal ideation is evaluated using a binary (yes/no) criterion. A “yes” response is considered indicative of a severe risk and mandates immediate emergency referral to a medical facility, given the student’s clinical history. However, a “no” response suggests no immediate risk of suicide; necessitating further assessment of other mental health conditions may still be necessary.

Resilience during the intervention phase

Resilience is conceptualised as the capacity of students to adapt, cope, and recover from psychological distress. In this model, resilience is not treated as an outcome alone, but as an integral component of the intervention process.

Interventions actively promote resilience through:

- Strengthening coping strategies (problem-solving, emotional regulation, mindfulness)
- Enhancing social support networks (peer and institutional support)
- Promoting help-seeking behaviour and reducing stigma
- Fostering self-efficacy and adaptive thinking patterns
- Addressing contextual stressors, particularly academic pressure

Terminus

The terminus of the model is the achievement of improved mental health outcomes through early detection, timely intervention, and the strengthening of student resilience within a responsive institutional support system

- Improved student mental health outcomes
- Early and effective management of ADSI
- Strengthened resilience among undergraduate students
- Reduced risk of severe psychological distress and suicidal behaviour
- Sustainable and responsive institutional mental health system

The colour codes of the model

There are code words on the model that have a significant meaning. The meaning of each colour is highlighted in the model and elaborated in the Table, based on symptoms, recommended responses, and referral logic. 18 below, the colours were defined in detail.

Table 22: Colour composition of the model

Colour codes	Description
	Anxiety - symbolises uncertainty and unease, heightened alertness, and a sense of danger and stress.
	Depression and suicidal ideation. Universally associated with sadness and melancholy (feeling blue), the grey background symbolizes dullness, a lack of vitality, and hopelessness.
	Suicide prevention. Yellow represents hope and positivity in prevention efforts.
	Green represents hope, growth, renewal, and healing, suggesting that students have reached a state of resilience.
	It symbolises neutrality or emotional numbness and provides ample space for reflection, grounding, and mindfulness.
	Black was chosen for the model's text as it conveys authority, elegance, and formality while enhancing readability.

7.4 MODEL EVALUATION AT THE THEORETICAL LEVEL

A comprehensive model manual was developed prior to finalising the Early Detection Model (EDM). The manual gave a detailed overview of the model structure, operational guidelines, implementation steps, and evaluation framework. This document was submitted to the study supervisors for critical review to ensure conceptual clarity, logical consistency, and feasibility before fully completing the model development.

An expert consultation was later conducted to enhance content validity. Invitation letters were sent to ten purposively selected participants, including two registered nurses, six student counsellors, one senior mental health officer, one medical doctor, and one psychologist. These stakeholders were selected for their professional expertise and direct involvement in student mental health services in higher education settings. Their feedback helped refine the model's conceptual structure, screening procedures, and response pathways.

The model was pretested among undergraduate students at public universities in Namibia to evaluate its clarity, usability, and practical applicability. An online survey was conducted, and 38 responses were received. During this pilot stage, the validated screening tools within the model were used for student self-screening. This pretesting enhanced the model's face validity, feasibility, and relevance to the university setting.

Measurable outcome and evaluation strategies

The effectiveness of the Early Detection Model (EDM) was evaluated using measurable outcomes, including reductions in anxiety, depression, and suicidal ideation, increased early identification of at-risk students, improved service utilisation, and strengthened institutional capacity. A mixed-methods evaluation approach was employed, combining quantitative measures (e.g., PHQ-9 and GAD-7 scores) with qualitative insights from mental health care providers to assess acceptability and feasibility (Creswell, 2018). Process and outcome evaluations were further assessed to implement fidelity and overall impact, while model quality was guided by established criteria of clarity, simplicity, and applicability (Fawcett, 2005).

7.5 MODEL EVALUATORS AND FEEDBACK

The model evaluation was conducted using Fawcett's (2005) framework for theory appraisal. Each criterion was employed to assess different aspects of the model. Significance evaluated the model's relevance to student mental health. Internal consistency was analysed to determine the logical relationships among the model components. Parsimony measured the simplicity and clarity of the model structure. Testability assessed whether the relationships within the model could be empirically tested. Empirical adequacy gauged how well the model aligned with the study's findings. Pragmatic adequacy evaluated the model's usefulness for guiding early detection and intervention in university settings. This framework demonstrates that the EDM model was systematically evaluated using a well-established nursing theory evaluation approach, thereby strengthening the study's methodological rigor.

- Significance

Does the model address the significant health concerns?

The researcher asked the examiners whether the model addressed an important problem and contributed to knowledge. The EDM model addresses the significant issue of early detection of ADSI among undergraduate students and helps improve understanding of factors influencing student mental health.

- Internal consistency

Are the concepts logically connected?

The evaluators were asked to evaluate the logical coherence of the concepts and relationships within the model. The constructs within the EDM model (academic stressors, social support, institutional factors, and early detection mechanisms) are logically connected and rooted in established theoretical frameworks, including the Health Belief Model and the Interprofessional.

- Parsimony

Is the model simple without overly simplifying?

Parsimony assesses whether the model explains the phenomenon with simplicity and clarity. The model is easy to follow. The researcher provided a detailed yet concise explanation of the model, outlining its structure for early detection and support for students experiencing ADSI. The colour codes were assigned to the model-scoring phase, with blue for anxiety and yellow for depression and suicidal ideation. The concepts in the model are simple for readers to understand. The model sequence is precise to ensure that the user follows it effortlessly.

- Testability

Can this model be evaluated through research?

Testability determines whether the propositions or relationships within the model can be empirically tested. The EDM model was developed from both quantitative and qualitative findings, ensuring that the conceptual relationships it represents are supported by empirical data from the study. The use of (GAD-7, PHQ-9, C-SSRS) provides measurable outcomes and clear classification criteria, supporting quantifiable evaluation. This study employed a mixed-methods approach, including an extensive literature review that identified gaps. The prevalence of ADSI was established, the coping strategies used by students were identified, and the practices of mental health providers in early detection of students experiencing ADSI were discussed. Merging the study findings led to the development of concepts incorporated into the model. Because data was collected from all actors involved, they strengthened the model's development, as the concepts guiding it were derived from these findings. Based on the study results, the EDM was developed, and the EDM screening tool was tested among users (students).

- Empirical adequacy

The screening tools used are evidence-based, internationally validated, and the interventions are suitable. The triangulated data (interviews and screening tools) confirmed the model

assumptions and logic. This increased the confidence level reported by Fawcett (2005), who assessed the model's empirical adequacy. The concepts were derived from the study's findings and supported by the literature review. The study's outcomes offer empirical evidence of the effectiveness of early detection and support for students experiencing ADSI.

- Pragmatic adequacy

Is the model practical for real-world applications?

Pragmatic adequacy evaluates how useful the model is for guiding intervention practices. In this study, the EDM model provides a practical framework that can assist universities, counsellors, and health practitioners in developing early detection strategies and support systems for students facing anxiety, depression, or suicidal ideation.

Mental health care providers evaluated the model from two public universities in Namibia. The participants included nurses, student counsellors, support persons, and senior mental health officers, medical doctors, and psychologists from MoHSS.

Table 23: Demographic Characteristics of the model evaluators

Respondents	Designation	Institution
1	Registered nurse	NUST
2	Registered nurse	UNAM
3	Student counsellor	NUST
4	Student counsellor	UNAM
5	Student counsellor	UNAM
6	Student counsellor	UNAM
7	Senior Health Program Officer, mental health	MoHSS
8	Campus Director (Support person)	NUST
9	Medical Doctor	MoHSS
10	Psychologist	MoHSS

The evaluation is complete, and the model's usability has been tested to ensure it is error-free.

Therefore, mental healthcare providers should adhere to this criterion:

- The results of the evaluation were implemented effectively, and feedback should be provided on how their input was utilised.
- The process and outcome were evaluated.
- The researcher should provide as much information to the participant as possible, to know what is expected of them.

The evaluation process was conducted with mental health care providers, registered nurses, doctors, and psychologists from all campuses. This was essential to assess stakeholders' processes and outcomes and compare them with the goals of the early detection model. A thorough and transparent evaluation process produces more consistent results

Feedback from the model evaluators

The model was shared with nurses, doctors, psychologists, student counsellors, and support staff. The registered nurse, student counsellors, and doctor indicated that their roles were not clearly defined. This issue was addressed by including these participants in the revised model and clearly outlining their functions. The agent's expectations were also not clearly defined in the original model. In the updated version, the expectations are explicitly clarified. One

participant mentioned that the expectation depends on the recipient's willingness to undergo screening. It was also recommended to use a validated tool. However, adding more data sources, such as primary and secondary data, could improve the model and give a more complete understanding of individual mental health and context.

The usability and language were straightforward and appropriate for mental health screening. Suggestions included adding open-ended questions to determine if the participant is willing to be referred to another facility. This data will be collected over time as primary data and referenced as needed. Incorporating a student leadership portfolio into the model is recommended. Peer educators are integrated into the model to provide peer support and represent the student leadership portfolio. One participant suggested using standardised mental health colours, such as blue for anxiety, red for depression, and yellow for suicidal ideation, which have been included in the revised model. The revised model emphasises its strengths as follows:

- Strength of the model

The model is easy to follow, concise, and comprehensive. While vague responses may require agents to gather more information to make informed decisions rather than relying solely on validated tools, the tool itself is excellent, and participants are already familiar with the GAD-7, PhQ-9, and C-SSRS. Having such a tool will reduce the time spent on assessments. The use of standard tools can support treatment interventions and informed decisions. Another participant mentioned that the model is suitable for quick evaluation of anxiety, depression, and suicidal ideation for students, learners, and staff, facilitating early identification, referral, and intervention. Additionally, another participant stated, *"In my view, the model has indeed reflected the screening tools, the scoring criteria are comprehensive, which will lead to a correct diagnosis and the expected outcome."* The model features an algorithm that health professionals can use as a standard operating procedure. It can be implemented at all public universities.

- Weaknesses of the model

The environment and institution were not clearly defined initially. These were specified in the revised version of the model, including public universities and health facilities. The information-sharing section of the model's outcome explained how students become aware of available resources, enabling them to make informed decisions.

- Suggestion

The following questions were suggested:

- Are you willing to receive counselling?
- Are you willing to see a mental healthcare professional?
- Are you open to being admitted if needed?
- Identify potential mental health risks and advise accordingly.
- Training for service providers with simulations on the actual data collection tool will be highly appreciated.

These open-ended questions were incorporated into the survey, and students were consulted during the consultation. The feedback was clear, timely, nonjudgmental, specific, and based on participants' responses during the evaluation, excluding personal emotions and opinions. All recommendations were recorded and incorporated into the final model (Figure 16).

7.6 THE GUIDE FOR THE OPERATIONALISATION OF THE MODEL

To formulate the guideline, the American Psychiatric Association (APA, 2017) stated that it must be based on the Population, Intervention, Comparison, and Outcome (PICO). The operationalisation of the EDM was guided by the Population, Intervention, Comparison, and Outcome (PICO) Framework, which is widely used in health research to structure research questions and develop evidence-based interventions. A guideline is a systematically developed set of instructions or principles designed to help practitioners, researchers, or institutions make decisions and implement procedures consistently and effectively (Field & Lohr, 1990). The PICO framework offers a systematic way to translate conceptual models into practical guidelines by clearly defining the target population, the intervention or strategy, the relevant comparison, and the expected outcome.

Table 24: Indicators for ADSI

Construct	Indicators	Measurement / Evidence
Depression	Depression screening scores, self-reported emotional distress, frequency of depressive symptoms	• PHQ-9 scores • Student self-reports
	Reduced academic functioning	• Academic performance indicators
Suicidal Ideation	• Suicidal ideation screening scores • Expressions of hopelessness or suicidal thoughts • History of suicide attempts or risk behaviours • Referral to support services	• Screening tools • Clinical/observational reports • Referral records

Application of the PICO framework for operationalisation of the model

The Population, Intervention, Comparison, and Outcome (PICO) framework was employed to systematically guide the development and operationalisation of the guidelines. PICO is widely recognized in evidence-based practice for structuring clinical questions and ensuring that guideline development is grounded in rigorous, transparent processes (Richardson et al., 1995; Centre for Evidence-Based Medicine). Its application in this study ensured that the recommendations were aligned with the best available evidence and relevant to the target population of undergraduate students.

The Early Detection Model (EDM) was validated using established approaches for theory evaluation and model validation. The study adopted the criteria proposed by Fawcett (2005), which include significance, internal consistency, parsimony, and testability. These criteria ensured that the model is conceptually sound, logically structured, and applicable in real-world university settings.

In addition, the model development and validation were guided by the theory-generating approach of Chinn and Kramer (2011), which emphasises systematic concept identification, relational statements, and empirical relevance. This approach strengthened the linkage between empirical findings (quantitative and qualitative) and the final model structure.

Furthermore, validation was enhanced by integrating findings from a convergent parallel mixed-methods design (John W. Creswell, 2018), ensuring that the model reflects both statistical trends and lived experiences. This triangulation improves the credibility and applicability of the EDM. Collectively, the use of PICO, theory evaluation criteria, and mixed-methods integration provides a robust scientific foundation for both the operationalisation and validation of the model. The components of the PICO Framework are presented in Table 25 below.

Table 25: Steps for operationalisation of the model

PICO Element	Application in EDM Guideline
P-Population	• Students from a public university in Namibia • Mental healthcare team and academic team
I-Intervention	• Implementation of the Early Detection Model • Student screening tools (C-SSRS, GAD-7, and PHQ-9) • Coordinated referral dashboard, peer educator training, and intersectoral collaboration
C- Comparison	Current reactive mental health support is to be proactive. • Academic staff involvement in early detection • Holistic care for the student • Confidentiality of student information • Policy formulation
O-Outcome	• Improved early identification of ADSI • Increased referral feedback system • Prompt linkage to care to reduce symptom severity • Enhanced institutional capacity • Policy adoption to sustain mental health support

PICO was used to evaluate whether the model improves outcomes compared to current practices. It links the intervention to measurable outcomes, demonstrating the model's effectiveness in practice.

7.7 MODEL IMPLEMENTATION FRAMEWORK

The framework adopts a collaborative, interprofessional approach in which counsellors, academic staff, and peer mentors work synergistically to ensure early identification, referral, and support for students experiencing ADSI.

Table 26 Stakeholders in the model implementation framework

Stakeholder / Responsible Agent	Roles and Responsibilities in the Screening Phase	Expected Contribution to Early Detection of ADSI
Counselors / Mental health professionals	Conduct screening using validated tools (C-SSRS, GAD-7, PHQ-9); assess risk levels; provide counselling, referrals, and crisis intervention; lead awareness and intervention programmes	Ensure accurate identification of anxiety, depression, and suicidal ideation and facilitate timely psychosocial support
Academic staff (lecturers, tutors)	Identify early warning signs such as absenteeism, declining academic performance, withdrawal, and behavioural changes; provide academic support; refer students to counselling services; create supportive classroom environments	Support early recognition of distress and strengthen referral pathways to professional services
Peer mentors/student leaders	Offer peer support and emotional encouragement; promote help-seeking behaviour's; participate in awareness campaigns; assist with early identification of distressed students	Reduce stigma and improve accessibility of informal support systems for students
University management / institutional leadership	Develop and implement institutional mental health policies; allocate resources (staff, funding, infrastructure); strengthen accessibility and visibility of services	Provide structural support for sustainable and coordinated mental health screening systems

Activities for screening in the model implementation

The agent conducts the assessment using PHQ-9, C-SSRS, and GAD-7. The student's data will be captured and scored to stratify symptom levels in the second phase of this study.

The students are the recipients of this exercise, from whom data will be collected to provide a clear picture of their mental well-being.

Table 27 Screening phase of the model implementation

Severity Classification	Scores are categorised as minimal (0–4), mild (5–9), moderate (10–14), and severe (>15) to guide decision-making and prioritisation of intervention needs. Suicidal ideation responses are classified as yes/no to ensure immediate response where necessary.
Aim of the Planning Phase	To identify and classify the severity of ADSI among university undergraduate students through structured interpretation of screening results, enabling early detection, prioritisation of at-risk students, and development of targeted evidence-based intervention strategies.
Responsible Agents	Nurses, student counsellors, and support personnel from public universities in Namibia collaborate within an interprofessional framework to ensure coordinated and timely student mental health care.
Roles of Agents	Interpret screening findings; classify severity levels; determine urgency of intervention; prioritise students requiring immediate support; coordinate referrals and care planning.
Activities of Classification	Screening scores guide decisions regarding appropriate interventions tailored to student needs; classification assists in determining whether conditions are mild, moderate, or severe; suicidal ideation responses trigger immediate intervention pathways for high-risk students.
Expected Outcome	Accurate grading of ADSI severity supports structured referral pathways, timely intervention, and coordinated multidisciplinary student support services.

Phase 3: Classification in the model implementation

Phase 3 concentrates on the practical implementation of early detection and intervention strategies for anxiety, depression, and suicidal ideation (ADSI) among university undergraduates. The participants apply the screening results from Phases 1 and 2 to categorise symptoms as minimal, mild, moderate, or severe. During this phase, mental healthcare providers give priority to high-risk (severe) cases for immediate intervention. Students are advised according to their respective criteria. Specifically, for suicidal ideation, individuals responding 'no' are classified as non-suicidal risk, whereas those responding "yes" are considered at high risk of suicide.

Table 28 Classification phase of the model implementation

Responsible Agent	Roles and Responsibilities	Purpose in EDM Process
Counsellors Nurses Mental health professionals	Provide counselling and psychological support; conduct further assessments; refer students to specialised services such as psychiatric care; monitor students' mental health status	Ensure accurate interpretation of severity levels and initiate appropriate referral pathways
Academic staff (lecturers, tutors)	Provide academic flexibility and guidance; identify struggling students; refer at-risk students to counselling services	Support early intervention through academic monitoring and structured referral
Peer mentors / Student leaders	Provide emotional and social support; encourage help-seeking behaviour; assist with follow-up and student engagement	Reduce stigma and strengthen informal support networks

Terminus stage

The terminus marks the final stage of the model, where intervention outcomes are assessed to gauge effectiveness, guide future practices, and promote the sustainability of mental health support for university undergraduates. The terminus phase focuses on evaluating the effectiveness of the implemented interventions in addressing anxiety, depression, and suicidal ideation among university undergraduates. This stage involves assessing student outcomes, reviewing intervention success, identifying gaps, and informing continuous improvement of the model to enhance long-term mental health support

7.8 DISCUSSION

The study provided a detailed overview of a model for the early detection of students at public universities experiencing ADSI. The model was developed based on scientific evidence from this study's quantitative and qualitative findings and an extensive review of the existing literature. An undergraduate from a public university in Namibia encountered ASDI within the institution, facing challenges due to gaps in human resources, the lack of standardised screening tools, fragmented mental health support, limited mental healthcare services, and the absence of screening tools and guidelines. Consequently, Osborne et al. (2022) reported that two-thirds of university students arrive on campus exhibiting symptoms of common mental health disorders, many of which remain undiagnosed, emphasising the variability in services and student access. Enhancing coordination between mental health support teams and academic staff is crucial for

facilitating early detection and appropriate support for affected students. Furthermore, strong collaboration between the line ministry and the public university is needed to better assist students facing mental health challenges.

7.9 CHAPTER SUMMARY

The model follows a sequence of screening, planning, classification, and intervention. The input from the model evaluators was incorporated, and the model was updated accordingly. This chapter discussed the model's contextualisation, drawing on the key concepts that guided its development. The chapter also clearly defined how the model is utilised.

CHAPTER EIGHT

CONCLUSION, LIMITATIONS, UNIQUE CONTRIBUTION, AND RECOMMENDATIONS OF THE STUDY

8.1 INTRODUCTION

The previous chapter introduced the early detection model and how it is used to help identify and support students experiencing ADSI. This chapter is the final chapter of the study and includes the conclusions, limitations, recommendations, unique contributions, and a discussion. It also offers recommendations based on analyses of ADSI prevalence and predictors, students' coping strategies for managing ADSI, and service providers' delivery of mental health care to university students. Additionally, this chapter discusses the study's limitations.

8.2 CONCLUSIONS OF THE STUDY'S KEY FINDINGS

This study provides a comprehensive examination of anxiety, depression, and suicidal ideation among undergraduates in Namibia. Firstly, quantitative findings revealed the high prevalence of ADSI, with academic pressure emerging as a significant predictor of psychological distress. These findings align with existing literature, which identifies academic demands and performance expectations as key contributors to student mental health challenges.

Furthermore, qualitative data provided more comprehensive insights into students' lived experiences. Participants articulated feelings of emotional distress, anxiety, and exhaustion associated with academic demands, thereby corroborating the quantitative results. Additionally, factors such as childhood trauma, gendered expectations, and family invalidation were identified as exacerbating psychological distress. Importantly, cultural norms, particularly among males, that discourage emotional expression contributed to unaddressed mental health issues.

Furthermore, the research identified both adaptive and maladaptive coping mechanisms. While some students employed positive strategies such as peer support and mindfulness, others depended on avoidance coping strategies, which, although offering temporary relief, were correlated with increased long-term distress and suicidal ideation. Accordingly, these findings underscore the necessity for interventions that foster adaptive coping and resilience. Additionally, the study uncovered significant deficiencies in mental health service provision, including limited professional availability, inadequate service visibility, and missed opportunities for early intervention. These findings indicate that institutional barriers considerably impede

access to mental health care. Consequently, strengthening service delivery systems is vital to improving student outcomes.

Subsequently, integrating quantitative and qualitative findings provided a more holistic understanding of ADSI among university undergraduates. This triangulation not only enhanced the validity of the findings but also informed the development of a contextually relevant early detection model. Finally, the study underscores the urgent need for targeted, collaborative, and evidence-based interventions. Thus, the proposed model offers a structured and comprehensive approach to early detection and management of ADSI, with the potential to improve mental health outcomes among university undergraduates in Namibia.

The prevalence and predictors of anxiety, depression, and suicidal ideation among Namibian public university students

This objective was achieved through a quantitative approach, which established the prevalence and predictors of SI among students. The findings revealed significant institutional gaps in mental health service provision, including a shortage of mental health professionals and fragmented service delivery across campuses, where a single provider often served multiple sites. Several key predictors of ADSI were identified, including academic year, age, sex, faculty of study, family conflict, current mental illness, and alcohol misuse. Notably, existing mental illness consistently emerged as a strong predictor across all outcomes, underscoring the urgent need for early detection and targeted support interventions.

Moreover, socioeconomic factors such as rural-to-urban migration, unemployment, and academic pressure were also identified as significant contributors to ADSI. These findings suggest that students from resource-constrained settings may experience a disproportionate burden of mental health challenges.

Interestingly, academic progression emerged as a protective factor against suicidal ideation, possibly due to increased maturity, resilience, and the development of effective coping mechanisms over time.”

The lived narrative and coping mechanism for students' experience of ADSI

The qualitative data were analysed thematically using ATLAS. ti version 8, yielding several key themes from students’ narratives, including persistent emotional distress, emotional

suppression, coping strategies and support systems, academic triggers, and experiences of stigma and judgment. Furthermore, the study identified both adaptive and maladaptive coping strategies. Maladaptive strategies, such as avoidance, emotional suppression, and substance use (alcohol and drugs), were commonly associated with heightened anxiety and depression, as well as impaired academic performance. In contrast, problem-focused coping strategies demonstrated more adaptive outcomes.

Cultural silencing among male students emerged as a significant barrier to help-seeking behaviours, reinforcing the influence of gendered norms on emotional expression. Moreover, fear of judgment and feelings of unworthiness were closely linked to academic difficulties and reluctance to seek support. Peer support emerged as a protective factor, with students disclosing their mental health challenges to friends and roommates. This finding underscores the importance of strengthening peer-led interventions to enhance early detection and support for students experiencing ADSI.

The practice of the mental health services provider in the early detection of students experiencing ADSI

The mental healthcare service provider practices in the early detection of ADSI among university students were thematically analysed. The institutional gap includes the absence of screening protocols, a lack of trained mental healthcare professionals, and inconsistent use of validated mental health screening tools across campuses. However, some campuses use instruments such as PHQ-9 and GAD-7, while others rely on informal questioning, resulting in fragmented care. During data collection, peer supporters were not available at NUST campuses, despite their significant role in early identification at UNAM campuses. Several faculty and academic staff expressed uncertainty about how to support struggling students, citing a lack of guidelines and fragmented student support services. While some campuses had mental health professionals, others lacked such provisions, highlighting the broader tension between academic and pastoral roles taken on by non-mental health staff. Service providers emphasized that cultural and belief systems hinder help-seeking behaviours among males, with religious and cultural practices leading to denial and avoidance, often resulting in seeking mental healthcare elsewhere. Additionally, the invisibility of services and missed appointments due to a shortage of mental

health professionals underscores the need for an integrated, visible, and proactive mental health infrastructure.

Despite certain challenges, some campuses demonstrated proactive engagement by promoting multidisciplinary collaboration, involving families, and emphasising ongoing professional development. This uncovered effective strategies for enhancing resilience and reducing stigma through peer counselling and psychoeducation programs.

8.3 LIMITATIONS

This study was limited by methodological and theoretical constraints that could affect the generalisability of the findings to the entire population.

- Methodological limitations

The cross-sectional mixed-methods design limited the study in several ways. Since data were collected at a single point in time, the study could not establish causality or capture changes in ADSI, coping mechanisms, or early detection practices over time. Although the mixed-methods design enhanced understanding through the complementarity of quantitative and qualitative findings, both components remained time-bound to the same data collection period. In addition, limited participant availability across six campuses led to some interviews being conducted telephonically, which may have reduced the depth of qualitative data by limiting rapport and the observation of nonverbal cues.

The absence or unavailability of some mental health care service providers on the Southern and Northern campuses further constrained representation. Moreover, the study was limited to undergraduate students aged 18–24 years at selected NUST and UNAM campuses, restricting the transferability of findings to postgraduate students, private universities, and other higher education settings. The researcher expects that in-depth interviews with the service provider might require significant time during data collection. Therefore, consulting the research respondents before scheduling the face-to-face interview was appropriate. Due to university students' busy schedules, the researcher anticipated a low response rate to the research questionnaires. As a result, the researcher planned to recruit a larger sample to offset the expected low return rate of the research instrument. Generalising the data from this study to the entire study population, private universities, and non-university students is impractical; therefore, the assumptions underlying ADSI might differ.

- Implementation limitation

The developed model and guideline were not implemented due to time constraints, as implementation is a comprehensive, time-consuming process. However, the model was tested with service providers, which already shows its feasibility, and implementation on the student portal will be part of post-doctoral work. The model's operationalisation was tested among mental healthcare service providers, which might lead to different interpretations from other mental health professionals. Therefore, future studies could include psychologists and psychiatrists to compare perspectives, thereby improving the model's adaptability across different contexts.

8.4 UNIQUE CONTRIBUTION OF THE STUDY

These mixed methods made several significant theoretical, methodological, empirical, and practical contributions to health research in Namibia.

The study offered one of the few comprehensive analyses of anxiety, depression, and suicidal ideation among public university students in Namibia. By assessing the prevalence and predictors of ADSI, the student provided locally relevant data in a context where empirical evidence on mental health remains scarce.

Methodologically, the study filled a gap in the literature by using a mixed-methods approach: quantitatively examining the prevalence and predictors of ADSI, and qualitatively investigating mental health service providers' practices in the early detection and support of ADSI, as well as undergraduates' coping mechanisms with ADSI. By combining both methods, the study went beyond isolated symptoms and measurements and incorporated a service-delivery perspective. This integration deepens the validity, detail, and contextual relevance of the student findings. Additionally, merging anxiety, depression, and suicidal ideation into one comprehensive framework offers a more holistic view of students' mental health, ensuring each objective contributes to fully addressing the study's purpose.

In practical terms, the most significant contribution of this study is the development of a novel early-detection model to identify students experiencing ADSI. The model supported proactive screening, assisted mental health personnel with early detection, and enabled timely referral to strengthen mental health provision within public universities in Namibia.

Scholarly contribution, three peer-reviewed articles further enhanced the academic value of this study. An article on the prevalence and predictors of ADSI among Namibian public university students, an article examining the mental health services providers in early detection support of undergraduate students, and coping mechanisms of undergraduates experiencing ADSI.

On the policy system, by highlighting contextual challenges in mental health care provision, the study informed university mental health policies, strengthened institutional screening strategies, and supported the allocation of mental health resources while promoting early detection within university systems.

8.5 RECOMMENDATIONS

Ministry of Health and Social Services

- Namibia's MoHSS should strengthen the integration of mental healthcare services into educational institutions by allocating resources for early detection programmes, training non-mental healthcare professionals as gatekeepers, and ensuring accessible referrals.
- Namibian National Mental Health Policy should prioritise student mental health as a public health concern, with emphasis on reducing stigmas, expanding services, and supporting research on anxiety, depression, and suicidal ideation among young people.

Higher educational institution

- Higher education institutions and the Ministry of Health and Social Services must create and implement comprehensive mental health policies tailored specifically for university environments, ensuring consistent service standards across all campuses.
- Namibian public universities (UNAM and NUST) should raise mental health awareness in academic and social settings by establishing sustainable counselling units and building collaborations with external health partners.
- Higher education should expand the number of trained mental health professionals, including counsellors, doctors, and psychiatric nurses, to address workforce shortages and enhance service accessibility across campuses.

- Namibian public universities should invest in capacity building for faculty and academic staff to identify distress early, promote resilience, and create a supportive learning environment.

Recommendation for community members

- Families, peers, and community stakeholders are encouraged to actively participate in mental healthcare promotion by offering informal support tailored towards reducing stigma, to create safe dialogue.
- Community engagement should focus on building trust, validating student experience, and reinforcing protective factors such as connectedness and cultural sensitivity.

Future research

- It is recommended that future research explore culturally responsive models for early detection and intervention and evaluate the effectiveness of the integrated campus-community approach.
- To investigate the impact of academic pressure, family expectations, and avoidance coping strategies on mental health outcomes.
- Mixed-methods and longitudinal designs should be prioritised to generate evidence that informs policy, practice, and curriculum development.

8.6 CHAPTER SUMMARY

Mental health challenges among Namibian public university students remain widespread and pose a significant public health issue. Public universities in Namibia (NUST and UNAM) lack dedicated mental health policies, leading to fragmented care due to poor coordination and a shortage of mental healthcare professionals within the university setting. This study emphasizes the urgent need for targeted mental healthcare services and highlights the importance of policy development to guide the way forward, enhance mental healthcare delivery, and achieve positive outcomes. Addressing students' mental health needs can greatly improve retention and academic completion rates, ultimately fostering the development of competent, resilient, and socially responsible graduates.

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APPENDICES

APPENDIX 1: FHNRAS ETHICAL CLEARANCE



13 Jackson Kaujeua Street T: +264 61 207 2970
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NAMIBIA W: www.must.na

FACULTY OF HEALTH, APPLIED SCIENCES AND NATURAL RESOURCES

DECISION/FEEDBACK ON RESEARCH PROPOSAL ETHICAL CLEARANCE

Dear Prof/Dr/Mr/Ms/Other(s):

Kristine Ndeuyamunye Siseho

Student No (if applicable): 219146284

Research Topic:	An Early Detection Model for Anxiety, Depression, and Suicidal Ideation among students at Public Universities, Namibia
Supervisor (if applicable):	Dr. Roswitha Mahalie
Co-supervisor(s): if applicable	Dr. Tuwilika Endjala
Qualification registered for (if applicable):	Doctorate in Health Sciences

FHNRAS:60/2023

Re: Ethical screening application No:

The Research Ethics Screening Committee has reviewed your application for the above-mentioned research project. Based on the recommendation of the expert reviewer, the research as set out in the application is hereby:

(Indicate with an X)

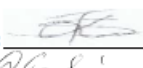
Approved: i.e. may proceed with the project	X	
Approved provisionally: i.e. may proceed but subject to compliance with recommendation(s) listed below		
Not approved: Not to proceed with the project until compliance with recommendation(s) listed below and resubmit ethics application for consideration		
IS MINISTRY OF HEALTH & SOCIAL SERVICES (MoHSS) APPROVAL REQUIRED?	YES: X	NO:

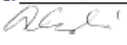
It is important to note that as a researcher, you are expected to maintain ethical integrity of your research, strictly adhere to the ethical policy of NUST, and remain within the scope of your research proposal and supporting evidence as submitted to the REC. Should any aspect of your research change from the information as presented, which could have an impact or effect on any research participants/subjects/environment, you are to report this immediately to your supervisor or REC as applicable in writing. Failure to do so may result in withdrawal of approval. Kindly consult your supervisor or HoD if you need further clarification.

We wish you success in your research endeavour and are of the belief that it will have positive impact on your career as well as the development of NUST and the society in general.

Ethical issues that require compliance/ must be addressed		
No.	Ethical issues	Comment/recommendation
1.		
2.		

NB: May attach additional page as required

Full Name (reviewer) Dr Lamech Mwapagha Signature:  Date: 19 October 2023

Full Name: Dr Larai Aku-Akai Signature:  Date: 06 November 2023

Chair: Ethics Screening Committee

APPENDIX 2: ETHICAL CLEARANCE FROM MOHSS



REPUBLIC OF NAMIBIA

MINISTRY OF HEALTH AND SOCIAL SERVICES

Ministerial Building
Harvey Street
Private Bag 13198, Windhoek

OFFICE OF THE EXECUTIVE DIRECTOR

Tel: No: 061 -203 2507
Fax No: 061-222 558
Andreas.Shipanga@mhss.gov.na

Ref: 22/3/1/2

Date: 21 December 2023

Enquiries: Mr. A. Shipanga

Ms. Kristine N. Siseho
Namibia University of Science and Technology
Windhoek

Dear Ms. Siseho

Title: An early detection model for anxiety, depression and suicidal ideation among students at public universities, Namibia.

1. Reference is made to your application to conduct the above study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
 - 3.1 The data to be collected must only be used for academic purposes;
 - 3.2 No other data should be collected other than the data stated in the proposal;
 - 3.3 No any specimen should be collected from Human Subjects;
 - 3.4 Stipulated ethical considerations in the protocol related to the protection of Human Subjects' information should be observed and adhered to; any violation thereof will lead to termination of the study at any stage;
 - 3.5 A quarterly report to be submitted to the Ministry's Research Unit;
 - 3.6 Preliminary findings to be submitted upon completion of the study;
 - 3.7 Final report to be submitted upon completion of the study;
 - 3.8 Separate permission should be sought from the Ministry for the publication of the findings.
4. All the cost implications that will result from this study will be the responsibility of the applicant and **not** of the MoHSS.

Yours sincerely,

BEN NANGOMBE
EXECUTIVE DIRECTOR



All official correspondence must be addressed to the Executive Director.



22521

APPENDIX 3: PERMISSION TO COLLECT DATA FOR UNAM MAIN CAMPUS

CENTRE FOR RESEARCH SERVICES

Office of the Pro-Vice Chancellor: Research, Innovation & Development

University of Namibia, Private Bag 13301, Windhoek, Namibia

340 Mandume Ndemufayo Avenue, Pioneers Park, Office F223 - Block, Second Floor

☎ +264 61 206 4673; E-mail: kimbui@unam.na; URL: <http://www.unam.edu.na>



RESEARCH PERMISSION LETTER

Date: 30/1/2024

Researcher's Name: Ms Kristine Ndeuyamunye Siseho

Academic Institution Registered with: Namibia's University of Science and Technology

Academic Programme: PhD, Health Sciences

Approved Research Title: *An Early Detection Model for Anxiety, Depression and Suicidal Ideation amongst students at Public Universities, Namibia.*

TO WHOM IT MAY CONCERN

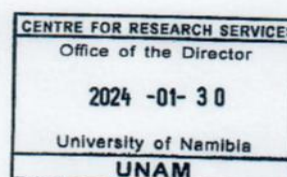
I hereby confirm that the above-mentioned researcher has requested to be issued with the Research Permission from the University of Namibia, having already obtained an Ethical Clearance Certificate from the University the student is currently registered with, namely, the Namibia's University of Science and Technology (NUST).

The Ethical Clearance Certificate was duly attached, as required by UNAM.

Permission is hereby granted to carry out the research as described in the approved proposal.

Best Regards

Dr. AEE Shikongo
Head: Postgraduate Research Support Services
Tel: +264 61 206 3129
E-mail: aeshikongo@unam.na



APPENDIX 4: PERMISSION LETTER FROM NUST MAIN CAMPUS



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

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Windhoek
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F: +264 61 207 9118
E: registrar@nust.na
W: www.nust.na

Office of the Registrar

29 January 2024

Kristine Ndeuyamunye Siseho
Email: ksiseho@nust.na
Windhoek
NAMIBIA

Dear Ms Siseho

**RE: CONSENT TO CONDUCT YOUR RESEARCH WITH THE NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY STAFF AND STUDENT**

Approval is hereby granted for you to conduct the research on "*AN EARLY DETECTION
MODEL FOR ANXIETY, DEPRESSION, AND SUICIDAL IDEATION AMONG STUDENTS AT
PUBLIC UNIVERSITIES, NAMIBIA*".

Any information gathered during the research is to be used for the purpose of the study only and must be treated as confidential. The results of the study should be shared with the University. Individual information of staff and students will not be made available, nor will biographical information of students be made available in such a way that individual students can be identified.

I wish you all the best with your research.

Yours sincerely,

Ms Selma Heelu
ASSISTANT REGISTRAR: Academic Administration

CC:
Deputy Vice-Chancellor: Research and Innovation
Assistant Registrar



APPENDIX 5: OSHAKATI PERMISSION TO COLLECT DATA

UNAM Oshakati Campus
Private Bag 13301
Windhoek
Namibia
08 March 2024



Request for Permission granted:
L. Mbatumba; Asst. Dir. OPERATIONS

Dear Dr. Pinchas

RE: REQUEST FOR PERMISSION TO COLLECT DATA FROM STUDENT COUSELOR AND UNDERGRADUATE STUDENTS (INTERVIEWS AND SURVEY QUESTIONNAIRE) UNAM OSHAKATI CAMPUS

My name is Kristine N. Siseho, and I am a Registered Nurse at the Namibia University of Science and Technology, NUST health services. Currently, I am in the process of collecting primary data, as part of completing a doctoral research study undertaken at NUST. Recently NUST and UNAM Main Campuses has issued ethical clearance for data collection to commence. Similarly, Ministry of Health and Social services has also issued ethical clearance for data collection.

The title of the research is: "An Early Detection Model for Anxiety, Depression and Suicidal ideation [ADSi] among students at public universities in Namibia.". The purpose of this study to develop and evaluate EDM for early detection of ADSi among university students at public universities in Namibia.

I am writing this letter to seek permission to collect data from small cohort of UNAM Oshakati campus undergraduate students aged 17-25 years old and the student counsellors to participate in this study. The data collection concurrently following these protocols:

- ✦ For qualitative data set, interview guide will be used to collect data from the social worker /counsellor. The providers will be interviewed regarding the practices on early detection of ADSi among undergraduate students. Interview will be audio typed once the participant has consented to such approach. Data collection is expected to take about 30-40 minutes.
- ✦ The qualitative data from students, interview guide will be used during data collection process. This data set will be audio-taped. Data collection procedures is a non-formal approach, and it will take 40 minutes only. I am hoping to capture thoughts and experience of how students cope with anxiety, depression, and suicidal ideation and how it may impact students' academic performance.
- ✦ For quantitative data set from the students, using self-administered questionnaire, a survey will be conducted among the undergraduate students to investigate the factors associated with ADSi among undergraduate students.

All responses will be kept confidential. Ethical considerations, such as the right to privacy, voluntary participation, refusal to answer certain questions, and informed and coercion-free

consent will be observed. Each response will be codified, to ensure that personal identifiers cannot be revealed during the analysis and write-up phases of the study. The interview guide and audio taped interviews will be kept in a safe place and will be destroyed five years after the study is completed.

I have provided the following documentation to Dr. Nyambe, in support of my request:

Ethical Clearance from Ministry of Health and Social Services Ref: 22/3/1/2

A copy of my approved proposal.

Your help in this matter is highly appreciated.

Yours sincerely,

.....
PHD in Health Science student researcher: Kristine Ndeuyamunye Siseho

Student No: 219146284

Mobile No: +264812808397

Email: kristinehamunye@gmail.com

PHD SUPERVISOR: DR Roswith Mahalie (NUST)

PHD CO- SUPERVISOR: Dr. Tuwilika Endjal (UNAM)

APPENDIX 6: UNAM SOUTHERN CAMPUS

RE: Data collection



Eiseb, Dr. Seth Johannes <seiseb@unam.na>

To: Siseho, Kristine Ndeuyamunye

Cc: Swartbooi, Coretta; Vries, Nadia; Poulton, Errolleen; Namukwambi, Rauna; Otela, Muutwe; Esterhuizen, Michael; Mbanga, Belinda; Absai, Vatuva



Fri 02/08/2024 4:47 pm

Dear Ms. Siseho,

Thanks for your message.

I am copying my response to colleagues based at the Southern Campus to inform them about your imminent arrival at our campus (17 to 19 August).

We agreed to provide you access to our campus for your data collection activities. The agreement was communicated to you sometime in March this year with the following conditions:

- Kindly inform Mr. Michael Esterhuizen (Student Leadership & Development Officer) and Mr. Muutwe Otela (Campus Security Officer) closer to the time before you travel to Keetmanshoop. They are both CC'ed in this message.
- Appointments must be done with the students during a time that is convenient to them, and which will have minimal impact on their studies.
- You must provide us with your findings at the end of your research.

Take note that we don't have a Student Councillor on site; this position is vacant since early 2024.

Best wishes,



Dr. Seth J Eiseb

Campus Director

Southern Campus

University of Namibia

Tel: +264 63 220 1301/083- 220 2001

Fax: +264 63 222211

E-mail: seiseb@unam.na

Web: <http://www.unam.edu.na>

Private Bag 13301, 340 Mandume Ndemufayo Ave, Pionierspark, Windhoek, NAMIBIA

APPENDIX 7: NUST EENHANA SATELLITE CAMPUS

Re: Data collection



Siseho, Kristine Ndeuyamunye

To: Dr Shikulo, Lukas

Cc: Kuuivilwa, Ester



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

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Windhoek W: www.nust.na
NAMIBIA

Disclaimer: Everything in this email and its attachments relating to the official business of the Namibia University of Science and Technology is proprietary to the Namibia University of Science and Technology. If the email is used other than for official business of the Namibia University of Science and Technology or the views and opinions expressed in the email are not authorised by the Namibia University of Science and Technology, the views and opinions expressed are those of the individual sending the email. The content of this email is confidential, legally privileged and protected by law. The person addressed in the email is the sole authorised recipient. Please notify the sender immediately if this email and its attachments have unintentionally reached you; do not read, copy, disseminate or use the content in any way and delete the email and any copies of it. Whilst all reasonable precautions are taken to ensure the accuracy and integrity of the information, and that this email and its attachments are free from any virus, the Namibia University of Science and Technology accepts no liability however arising or responsibility whatsoever in this regard, and in keeping with good computing practice, the scanning of files and attachments is advised.

From: Dr Shikulo, Lukas

Sent: 20 August 2024 08:33:30

To: Siseho, Kristine Ndeuyamunye

Cc: Kuuivilwa, Ester

Subject: RE: Data collection

Dear Kristine

Well noted, will be expecting you.

Best wishes

Dr Lukas Shikulo

Head of Campus

Eenhana Satellite Campus

Namibia University of Science and Technology

T: +264 61 207 2104

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E: lshikulo@nust.na

W: www.nust.na



Our Values



APPENDIX 8: PERMISSION FOR HAGE GEINGOB CAMPUS

FW: Permission to collect data at Hage Geingob Campus



Titus, Dorothy <dtitus@unam.na>
To: Siseho, Kristine Ndeuyamunye



You replied to this message on 17/04/2024 10:24 am.

UNAM letter seeking permission - Pilot Study.pdf 98 KB	Ethical Approval Certificate_KSiseho2.pdf 117 KB	UNAM Permission.pdf 328 KB
MoHSS Permission.pdf 334 KB	Approved Research proposal for PHD 2023 (002).pdf 544 KB	

Dear Kristine Siseho
Registered Nurse
Student Services
Namibia University of Science and Technology

Approval is granted to collect data for your research at Hage Geingob Campus.

With kind regards



Dorothy Titus
Campus Administrator: Hage Geingob Campus
Faculty of Health Sciences & Veterinary Medicine
University of Namibia
Tel: +264612085044
Fax: 0888524934
E-mail: dtitus@unam.na
Web: <http://www.unam.edu.na>
Private Bag 13301, 340 Mandume Ndemufayo Ave, Pionierspark, Windhoek, NAMIBIA

UNIVERSITY OF NAMIBIA

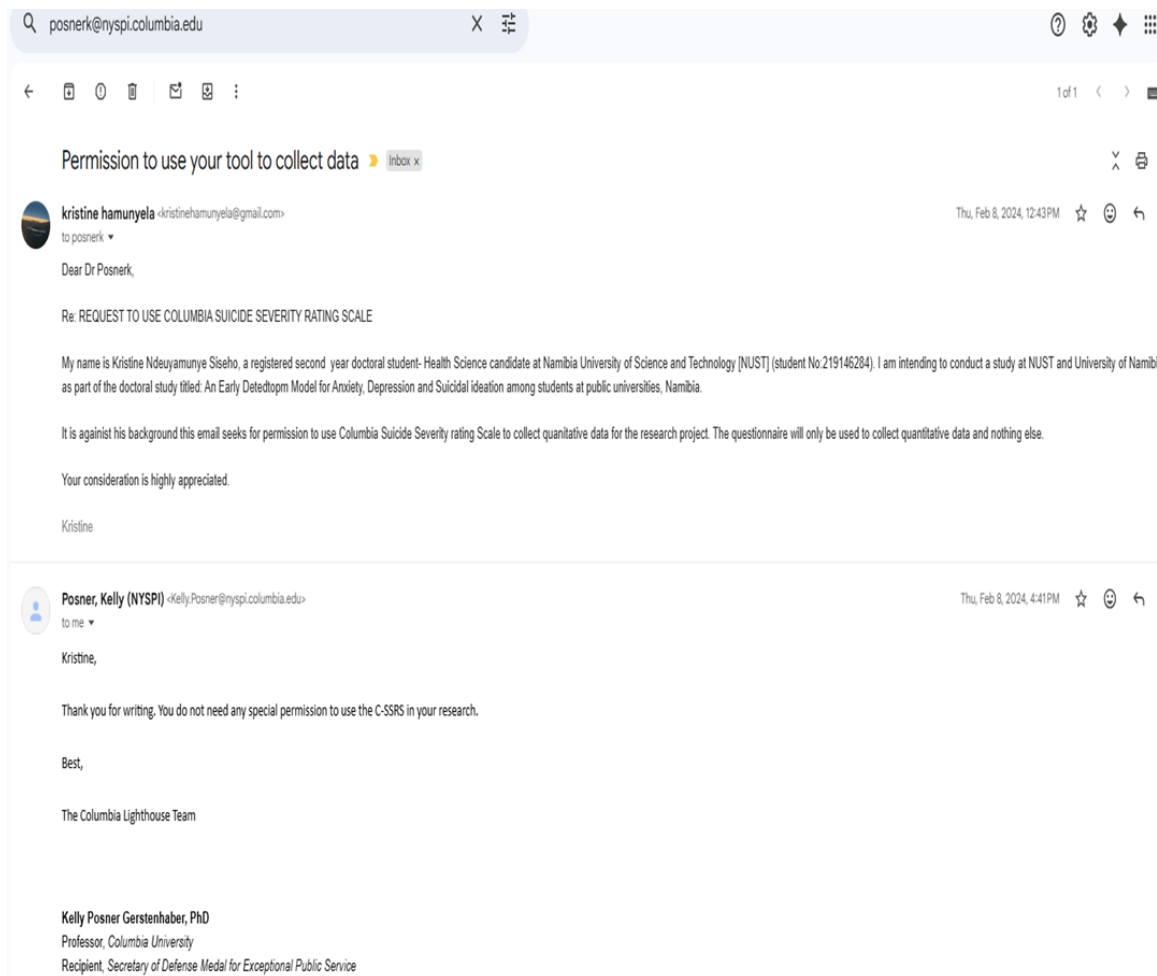
2024 Graduation Dates

Southern Campus: Friday, 05 April
Rundu Campus: Tuesday, 16 April
Northern Campuses: Friday, 26 April

Windhoek Ceremonies: Wednesday, 10 April | Thursday, 11 April
Katima Mulilo Campus: Thursday, 18 April

www.unam.edu.na

APPENDIX 9: COLUMBIA PERMISSION TO USE C-SSRS



APPENDIX 10: QUESTIONNAIRE FOR DATA COLLECTION

Informed Consent Form participating in the research titled "Early detection model for anxiety, depression and suicidal ideation among public university students in Namibia" 18-24 years

The principal investigator's name is Kristine N. Siseho

Title PhD candidate at Namibia University of Science and Technology

Student Number: 219146284

Conduct details: +264812808397

Supervisor: Dr. Roswitha Mahalie Co-

supervisor: Dr. Tuwilika Endjala

Information sheet: UNAM Campuses

Before you decide whether to participate in this study, you should read the information provided below, and please do not feel rushed or pressured to make an immediate decision to participate in this study. Please take time to understand the risks and benefits of your participation in this study. Your consent is necessary before proceeding with the study. Please feel free to ask for clarification if needed. I am here to ensure that everything is well understood, before data collection. Should you need clarity during the study, please feel free to contact me. You should clearly understand the risks and benefits so that you can make informed decisions, which is known as informed consent.

If you do not want to take part in this study, it will not be counted against you now or in the future. Please note that if you change your mind even after you have already answered some questions, you can do that without being asked to give reasons. If you opt out, please note that you will not be punished for that.

Why is the study being done?

The study is about the Early Detection of Anxiety, Depression, and Suicidal ideation among university students at public universities in Namibia. The aim is to develop an Early detection Model of Anxiety Depression and Suicidal ideation among university students in Namibia. The objective is to investigate the factors associated with ADSI among undergraduate students at public universities in Namibia. To establish the prevalence of ADSI, I need to collect data from the students, and the service providers from UNAM and NUST campuses in Khomas, !Karas, Ohangwena, and Oshana regions. Data will be used to develop an Early Detection Model for Anxiety, Depression, and Suicidal ideation among university students. Early identification leads to early intervention and prompt linkage to care.

Who is conducting and funding the study?

The researcher is Mrs. K Siseho, under the supervision of Dr. R. Mahalie and Dr. T Endjala, who has arranged the study as part of PhD study at Namibia University of Science and Technology. The study is not funded.

Reimbursement

You will not be provided with any payment for participating in this research study. Participation in this study is voluntary and you can withdraw anytime without punishment.

Why am I being asked to participate in this study?

I believe that your input in this study will add value to the study outcome. I am interested to know about your mental well-being as a university student.

Procedure during data collection

As a participant, you will be asked for the time that is most convenient for you, which will take 30 minutes of your time. You will be asked to complete a questionnaire that will cover certain aspects, demographic data, factors associated with ADSI, and prevalence of ADSI. You may be asked to have an interview with you if you meet the criteria for the face-to-face interview. It will be an informal interview chat, composed of open-ended questions.

What will happen if I agree to participate?

You will be given a questionnaire to answer. You will also be asked to participate in the face-to-face interview if you have experienced any of the mental health conditions so that I can establish how you cope with mental health challenges and academic pressure.

Is there a special benefit if I participate in this study?

Participating in this study holds potential benefits for university students living with mental health conditions.

- ✚ **Informing Early Detection Measures:** The information gathered will contribute to a better understanding of ADSI that will aid in the development of an Early Detection Model for Anxiety Depression and Suicidal ideation among students at public universities in Namibia.
- ✚ **Mental Health Policy:** Insight gained from this study might inform the policymakers to develop a mental health policy for the academic institution, that potentially leads to better mental health care for students at the universities that will ultimately benefit the entire Namibian population.
- ✚ **Inform the body of knowledge:** Your participation in this study means there will be a collective knowledge database that has the potential to inform other researchers about mental health care for students at universities.

Are there any risks?

The interview will be conducted in the room closed, to ensure that there are no risks of distress at all. You will be asked to speak about your experience that you are comfortable to discuss

Confidentiality and safety measures

At no stage does your name appear in any written report. I will not share your personal information. Your information will not be identifiable hence I will identify you as a participant or respondent 1-100. The questionnaire will be locked up in a lockable cabinet. The research data will be kept until published.

What will happen if something goes wrong during the interview?

The interview is designed in such a way that you will not get upset. Thus, why you will only be asked things that you are comfortable sharing, if you become distressed, I will refer you for counseling and discontinue the interview.

Where can I get further information?

For any inquiry, please feel free to contact Ms. Kristine N. Siseho at cell: +264 81 2808 397 Office Number: +264 61 207 2876 or E-mail at kristinehamunyela@gmail.com. The supervisor Dr R. Mahalie, at 061-2072897: E-mail: rmahalie@nust.na Faculty of Health and Applied Science at NUST, and Dr. T Endjala. +264817562981 or tendjala@unam.na

Questionnaire ☐ ☐ ☐

Instruction to the respondents

- Please answer all questions by marking with an "X" in the empty box next to the corresponding answer.
- Your participation is highly confidential, no name or identity is required.
- Your participation is voluntary.
- Some questions have more than one response.

1. SECTION A: Demographic information

1.1 How old are you now?

1	18-19	
2	20-24	

1.2 What is your gender?

1	Female	
2	Male	

1.3 Select your marital status.

1	Never married	
2	Married	
3	Divorced	
4	Widowed	

1.4 What is your home language?

1	English	
2	Oshiwambo	
3	Afrikaans	
4	Damara	
5	Rukwangari	
6	Silozi	
7	Herero	
8	Others	

1.5 What is your nationality?

1	Namibian	
2	Non-Namibian	

1.6 Region where you grew up?

--

1.7 Which academic year are you now?

1	2 nd	
2	3 rd	

1.8 Please select your faculty of study.

1	Faculty of Computing and Informatics	
2	Faculty of Commerce	
3	Faculty of Human Sciences & Education	
4	Faculty of Engineering and Build Environment	
5	Faculty of Health Natural Resources and Applied Science	

1.9 What type of accommodation are you currently staying in?

1	Campus hostel	
2	Commute from urban home	
3	Commute from a rural home	
4	Informal settlement	
5	Others	

1.10 Do you pay a rental fee for your accommodation?

1	Yes	
2	No	

1.11 Who do you live with at your current residence?

1	Parents	
2	Extended family	
3	Spouse	
4	Alone	
5	Fellow students	
6	Other	

2. SECTION B FACTORS ASSOCIATED WITH ANXIETY DEPRESSION AND SUICIDAL IDEATION AMONG STUDENTS:

Biological factors:

2.1 Have you experienced mental illness before? (Please use X in the corresponding box)

1	Yes	
2	No	

2.2 If you answered Yes in question 2.1, are you currently on mental illness treatment?

1	Yes	
2	No	
3	Not applicable	

2.3 If you answered YES in question 2.2. Were you ever admitted to the Mental Health Care Unit?

1	Yes	
2	No	
3	Not applicable	

2.4 Is there anyone in your family experiencing mental illness?

1	Yes	
2	No	
3	I don't know	

2.5 If your answer is YES in question 2. 4 how are you related to a family member who has a mental illness?

1	Parent	
2	Sibling	
3	Extended family members	

2.6. How do you describe your personality

1	Self-confident	
2	Low-self esteem	
3	I am a lonely person	

2.7. Are you suffering from any chronic disease?

1	Yes		
2	No		

2.8. If your answer to Question 2.7 is Yes, please write the name of the chronic disease you are suffering or if No, select not applicable.

1	Chronic disease...	
2	Not applicable	

Family and economic factors (Please use X in the corresponding box)

2.9. Are your biological parents alive?

1	Yes	
2	No	
3	One of my biological parents is deceased	

2.10. What is the marital status of your biological parents?

1	Never Married	
2	Married	
3	Divorced	
4	Widowed	

2.11. Select your biological parent's employment status.

1	Employed	
2	Unemployed	
3	Pensioner	
4	Others	

2.12. Who is paying your tuition fees?

1	Parents	
2	Bursary	
3	Loan NSFAP	
4	Others	

2.13. How do you meet your basic needs?

1	Parent	
2	Spouse	
3	Part-time job	
4	Informal business	
5	Others	

2.14. Were you raised by your biological parents?

1	Yes	
2	No	

2.15. If you selected NO in question 2.14, why were you not raised by both parents?

1	My parents are divorced	
2	Both parents are deceased	
3	One of my parents is deceased	
4	One of my parents works elsewhere	
5	One of my parents is married to somebody else	
6	Other	

2.16. Which of the following best describes your childhood upbringing?

1	Well, treated	
2	Maltreated	

2.17. How often do you experience conflicts within your family?

1	More often	
2	Often	
3	Occasionally	
4	Rarely	
5	Never	

2.18. How did family conflicts make you feel?

1	Anxious	
2	Depressed	
3	Suicidal	
4	Not applicable	

2.19. What do you do when you are emotionally broken?

1	Talk to my friend	
2	Talk my parents	
3	Talk to the health worker	
4	I don't talk to anyone	
5	I abuse alcohol abuse	
6	I abuse substances/drugs	
7	Social media	
8	Sport	
9	Others	

SECTION C: PREVALENCE OF ANXIETY, DEPRESSION, AND SUICIDAL IDEATION.

Read the following question and choose a corresponding answer that best describes your experience with mental health conditions. Use an "X" in the appropriate box.

3.1 During the last 7 days, did you experience the following mental health conditions?

Mental health disorder		No	Little	Moderate	Much	Very much
1	Anxiety					
2	Depression					
3	Suicidal ideation					

Read the following question and choose a corresponding answer that best describes how often you experience mental health problems. Use an X in the appropriate box.

3.2 When was the last time you experienced the following mental health conditions?

Mental health condition		Never	4-6 months ago,	1-3 months ago,	1-3 weeks ago,	Less than 1 week ago
1	Anxiety					
2	Depression					
3	Suicidal ideas					

3.3 Read the following statements and select the most appropriate one that describes your experience of mental health disorders. Use an X in the appropriate box.

3.3.1. Have you ever experienced the following anxiety symptoms		Never	Rarely	Several days	often	Every day
1	Fear of worse happening					
2	Unable to relax					
3	Fear of losing control					
4	Terrified and afraid					
4	Nervous					
5	Fainting/ lightheaded					
6	Handshaking and trembling					
7	Difficulty in breathing					
8	Others					

	3.3.2. Have you ever experienced the following depression symptoms	Never	Rarely	Several days	Often	Every day
1	Little interest in doing things					
2	Feeling hopeless					
3	Trouble sleeping, sleeping a lot					
4	Feeling tired, little energy					
5	Poor appetite or overeating					
6	Trouble concentrating					
7	Feeling bad about yourself, failure					
8	Moving or speaking so slowly that other people noticed					

	3.3.3 During the past two weeks, did you experience suicidal ideation	Yes	No
1	Suicidal thought "I thought about being dead" I wish I had gone to bed and never woke up.		
2	Nonspecific active ideation Have you thought of killing yourself?		
2	Active ideation without a plan " Have you ever thought of how you would die?" If yes describe how?		
3	Active suicidal thought with a plan "I thought how I would die." If yes describe:		
4	Passive suicidal ideas " I have thought but I won't do anything about them		

Thank you for your participation!

APPENDIX 10: INFORMED CONSENT TO COLLECT DATA FROM STUDENTS

Qualitative informed consent for the students

Research topic: **An Early Detection Model for Anxiety, Depression, and Suicidal ideation among Namibian public university students.**

Researcher: Kristine Ndeuyamunye Sischo,

Reference Number: 219146284

Dear participant

I am Kristine N Sischo, a Namibia University of Science and Technology doctoral student. I am currently conducting a research project among university students who are affected by Anxiety, Depression, and Suicidal ideation in Khomas, Karas, Ohangwena, and Oshana Region in Namibia. The aim is to develop an Early Detection Model for anxiety depression, and suicidal ideation among undergraduate students. The study is conducted under the supervision and guidance of Dr. R. Mahalie (NUST) and Dr. T. Endjala (UNAM).

You are kindly invited to participate in the study by answering the research interview on how you cope with the mental health condition that you are experiencing. There will be no risk of harming your participation in this study. The questionnaire will take 20-30 minutes of your time. Please familiarize yourself with this information. Your participation is voluntary which means you can decide to participate or not to participate. Please note since your participation in this study is voluntary you have the right to withdraw your consent at any time should you feel so and discontinue participation without penalty.

Your identity will not be revealed, and the information will be seen by the researcher and the supervisor. Should there be the need for publication the participant will be conducted first. You are not waiving any legal claims or rights because you participate in this research study.

For an inquiry, please feel free to contact Ms. Kristine N.Sischo on cell: +264 81 2808 397 Office Number: +264 61 207 2876 or E-mail kristinehamunye@gmail.com. The supervisor Dr R Mahalie, at 061-2072897: E-mail: rmahalie@nust.na Faculty of Health and Applied Science at NUST, and Dr. T Endjala. +264817562981 or tendjala@unam.na

Should you agree to participate, please sign the consent provided. If you have any questions that need clarification you are welcome to contact me or my supervisors on above mentioned numbers.

I.....agree to participate in this research project of my own will.

Signature.....

Date.....Place.....

APPENDIX 11: INTERVIEW GUIDE TO COLLECT QUALITATIVE DATA FROM STUDENTS

Title of the research project: An Early Detection Model for Anxiety, Depression, and Suicidal ideation among Namibian public university students

Interview guide for students

Investigator: Kristine Siseho

SECTION A: DEMOGRAPHIC

Age:

Gender:

Institution:

Faculty:

Academic year:

Nationality:

Region were you grew up: •

Religion:

Section B

A main Questions

1. May you please tell me about which type of mental health condition you are experiencing?
2. How long have you been experiencing the identified mental condition?
3. Are you currently on medication that can help you cope with your mental condition?
4. Where you ever been admitted to a psychiatric hospital before? If yes, How did you feel being admitted to the psychiatric hospital?

Possible probing question

- a) When you're feeling overwhelmed or anxious, what are the first things you tend to do to calm yourself down?
- b) Are there particular activities, habits, or routines you follow that help alleviate feelings of depression or anxiety?
- c) What roles do your family and friends play in helping you to cope with the mental health condition that you are experiencing?
- d) How do you balance your personal life with academic responsibilities when you're struggling emotionally or mentally?
- e) How does cultural and personal background influence your coping strategies?
- f) What available support does your institution have in place to help you cope with your mental health condition?
- g) How accessible and effective is the available support that you have at your campus?

- h) What challenges or barriers do you face when seeking help from service providers for your mental health disorder?
- i) Would you please tell me if you have a mental health support system, social worker, academic counselor, and a clinic at your campus?
 - If yes, did you use the facilities ? and how effective were the counseling services?
 - Would you refer other students who have the same mental health disorder for counseling services?
 - And if not, why didn't you use the service despite your need for such services?
- j) What can you recommend for the institution regarding mental health support for the fellow students experiencing mental health conditions?

Thank you for your participation.

APPENDIX 12: STUDENTS VERBATIM TRANSCRIBED

Participant 10: 29/10/2024

Section A: Demographic data

Age:22

Gender: Female

Institution: Site 1

Faculty: Commerce and Management

Academic year: Second

Nationality: Namibian

Region where you grew up: Erongo

Religion: Christian

Section B

Researcher: Hello. Good morning.

P10: Good morning, ma'am. How are you?

Researcher: I'm doing very well. Thank you for agreeing to participate in this study. May you please tell me which type of mental health conditions you are experiencing?

P10: I got diagnosed with MDD, which is major depressive disorder. Mm-hmm.

Researcher: OK. How long have you been experiencing major depressive disorders?

P10: I would say since I was 13. But then I only got diagnosed this year in July, yeah.

Researcher: So, it's been three months now? So, when were you diagnosed with MDD? Was it a doctor or a psychiatrist?

P10: UM. Both actually. Yeah. At the central hospital, yeah.

Researcher: Are you currently taking medication to help you cope with your mental health condition?

P10: - Yes, I am on medication.

Researcher: Have you ever been admitted to a psychiatric unit before?

P10: Female: No.

Researcher: May you please share with me how you cope with major depressive disorder as a university student?

P10: I used to cope in unhealthy ways in terms of not really taking to heart what I'm going through, but now I've been taught coping mechanisms, as in how to cope when I'm in an anxious environment or when I'm feeling anxious? So yes, so?

Researcher: So that means you are also experiencing anxiety problems.

P10: Yes. Mm-hmm.

Researcher: OK, so with anxiety, have you been experiencing that also for the past three months?

P10: Yeah, more than that. Also, since my childhood. Yeah, but it was also diagnosed currently in the last three months, OK.

Researcher: OK, what role do your family and friends play in helping you cope with your mental health problem? Also, thinking of your cultural and personal background, how does that affect your coping strategies or influence your coping strategy?

P10: And to be honest, when it comes to my family and friends. They do understand the effects and how it takes a toll on the student's life. So they try to find new ways to make me feel comfortable and have more open discussions with me, yeah. As an introvert, I find it challenging to engage in certain conversations, so I tend to close off. So if I am feeling. Anxious with all the symptoms that comes with it. For example, my friends will tell me. Let's go for a walk. Let's go for a drive. Or do you want to talk about it? You just want someone to listen to you. Something that my mom does is that she tells me to lie down. And then she just massages my stomach and just tells me to breathe or she will pray for me, yeah.

Researcher: OK. So those interventions are very helpful?

P10: Very much.

Researcher: OK, what available support does your institution have in place that may help you cope with your mental health condition?

P10: Female: On campus, we have a social worker. So she gives counseling. Umm, she's the first person that I went to talk about my issues and then she referred me to the central hospital. We also have a clinic on campus, so that's another option.

Researcher: Since you used the social counselling services, how was the intervention?

P10: OK. Umm would you say the intervention of the social worker was. Effective. Yeah, very much. Yeah. And the referral you were also referred for specialized care.

Speaker

Researcher: OK, were there any challenges or barriers when you were seeking the service provider's support?

P10: No, I didn't face any barriers because. All of the details are online as a student, so you must just know how to access it. That's how I got in contact of my social worker. I sent an email using the address I obtained from the school's website, and she responded immediately.

Researcher: OK, so you were able to see that same day?

P10: Female: We scheduled an appointment for next week. Yeah.

Researcher: OK. Yeah. How was it? For you, when you were waiting for the appointment?.

P10: Female: I was very much because I didn't know how to go about it because like I said. I'm not someone who is easily talked about her emotions. So there were certain things that I had to open up about that I would not usually and I'm still learning to speak about my mental health freely.

Researcher: Would you be in any position to refer any student experiencing mental health conditions, such as maybe anxiety or depression?

P10: Yeah, I have referred before. I'm just waiting for them to come on their own will, because certain things you can't push. Someone has to take the initiative to come. Yeah. They must realize that they have a need, yeah. Their help? Yeah. Umm.

Researcher: MHM. Have you ever experienced suicidal ideation?

P10: Yes.

Researcher: Ok. How do you overcome their suicidal ideation?

P10: I just try and throw away the thought. Yeah, when I get triggered by having such negative thoughts. I try to throw away the thought. I try to think of something else in the moment.

Researcher: Yeah. Was that part of the coping strategies that you learn from the psychiatrist unit, or is it just something?

P10: No, it's just something I've been using to cope with.

Researcher: OK, so having suffered. From the mental health condition, you mentioned that it was. It started when you were pretty young. Did something trigger it, or is it just maybe your hormones and stuff?

P10: It was triggered by childhood trauma.

Researcher: Would you like to discuss it?

P10: Yeah, sure. If you give me. If you ask more specific questions because I'm still learning how to talk openly, yeah.

Researcher: Oh, OK. Uh, what type of abuse did he endure as a child?

P10: Female: Umm, physical abuse, emotional abuse. And then somehow, financial abuse also came into play. One parent started going through financial abuse, which affected the rest of us. Because if we feel like we. It's a thing of the past as a child. Feel like you. Must do more than. What must you do financially? Yeah, as a child, to help.

Researcher: Oh, so you grew up with your parents in the same house.

P10: Yes

Researcher: So, the whole. Financially, abuse and physical happened within the same house.

P10: Yeah. Within the same house.

Researcher: Thank you very much for sharing the cause of your mental health problem, and I would like to ask, did you fail a module before?

P10: To be honest, I did. And I'm currently busy with the last one.

Researcher: How did that make you feel?

P10: Yeah, it affected me very badly. Because I'm someone who is a hard worker, especially academically, so when I failed my modules, I felt less deserving of the opportunity to come to university. Yeah. Because there are people out there who really want I don't want to take it for granted. Yeah.

Researcher: How did your parents react to that?

P10: It did. They were. They were more understanding. Yeah, they were more understanding. I was the one who was too high on myself, really encouraging with. The moment they understood that I am trying and university is not as easy as people portray it here to be out there, yeah.

Researcher: Currently you have a good family. Support the finance. The abuse and everything are things of the past.

P10: Not entirely. It isn't easy to rate it's, because for most of the part I'm not at home because I'm here. So I'm not at home, but obviously, they will not tell me everything that goes on that they need to know will affect my mental health. yeah, but then realistically, when I'm at home, I would say. 40-45% of it is still there.

Researcher: OK, alright. Thank you very much—our last one. Is there anything that you can recommend regarding mental health support for students?

P10: I would say we should have more open discussions about mental health when we have people come on campus to talk about it. I would prefer it if we have both genders, male and female in the different types of abuse they went through, and how they coped with it, so that we can understand how, even hormones from both different genders come

into play, and not just the one-sidedness. Most of the time, we focus on the female and the girl child. But we don't consider how the males. How their hormones come into play, and how open they are in the child's food. Trauma and how? They grow up and everything like that. So, it's just more open discussions internally, as well as on campus, and involving both genders.

Researcher: This is appreciated. Yeah, and I wish you all the best in your in life and in your studies.

Site 1 Participant 7: Female: Thank you. Alright, bye.

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APPENDIX 13: CONSENT FOR MENTAL HEALTH SERVICES PROVIDER

CONSENT FORM FOR QUALITATIVE PART OF THE STUDY (NURSES, SOCIAL WORKERS, AND COUNSELORS)

TOPIC: An early detection model for anxiety, depression, and suicidal ideation among Namibian public university students

Dear Participant

I am Kristine N Siseho, a Namibia University of Science and Technology doctoral student. I am currently conducting a research project among university students at public universities in Namibia: Khomas, Karas, Ohangwena, and Oshana Regions. The aim to develop an Early Detection Model for anxiety depression, and suicidal ideation among undergraduate students. The study is the supervised by Dr. R Mahalie (NUST) and Dr. T Endjala (UNAM).

As a key informant, you are kindly invited to participate in the study through interviews and face-to-face discussions when is convenient for you. Please note there will be no risk or harm regarding your participation in this study. You are expected to share your experiences and respond to the questions during the interview session. The interview might take about 20-30 minutes of your time. Your Participation in this study is voluntary and you are under no obligation to participate. You have the right to withdraw at any time. You are not required to share any identifying information during the interview apart from the duty station. Your identity will not be revealed during the study, during reporting, or in the publishing of the research findings.

For an inquiry, please feel free to contact Ms. Kristine Ndeuyamunye Siseho at cell: +264 81 2808 397 Office Number: +264 61 207 2876 or E-mail kristinehamunyela@gmail.com. The supervisor Dr R Mahalie, at 061-2072897: E-mail: rmahalie@nust.na Faculty of Health and Applied Science at NUST, and Dr. T Endjala. +264817562981 or tendjala@unam.na

I have read this form and voluntarily consent to participate in this study.

.....

Participants' signature

Declaration by investigator

I Kristine Ndeuyamunye Siseho declare that. I have explained the information in this document in a simple and clear manner to

I encouraged him/her to ask questions and take time to answer them.

I am satisfied that he /she completely understands all aspects of the research discussed above.

I will not use an interpreter.

Signed(place)..... On (date)

.....

APPENDIX 14: INTERVIEW GUIDE FOR STUDENTS

INTERVIEW GUIDE FOR: NURSES, SOCIAL WORKERS, AND STUDENT COUNSELORS AT THE PUBLIC UNIVERSITY (NUST)

Study title: An Early Detection Model for Anxiety, Depression, and Suicidal ideation among Namibian Public University Students

Sub-objective: To evaluate the practices of the service providers related to the early identification of university students exhibiting ADSi [Phase 1].

Section A: Demographic data

Age:

Gender:

Job title:

Highest qualification:

Years of experience

Campus:

Section B: Main Question

1. Would you please share with me your professional role as a student councillor?

Possible probing questions

1.1 Please discuss the mental health services that you offer the students?

1.3 Please share with me if your institution has procedures or tools used to the early identification of students suffering from ADSI.

1.4 At what point do you become aware of mental illness among the students?

1.5 How you deal with mental illness crises on campus, such as psychosis, and suicidal at

1.7 Discuss your referral channel in case of students who need advanced mental health care.

1.8 How do you keep your self up to date with the latest development pertaining to mental health support for the student?

Can you share a case that you early identified and managed if there is?

1.9 What challenges do you face as a counsellor that hinder you from early detection of mental illness among students?

10. What can you recommend as a councillor that your institution should do to early identify and support of student with mental illness?

More probing questions might emerge during the interviews. All key ethical principles of informed consent, autonomy, and confidentiality

APPENDIX 15 REGISTERED NURSE VERBATIM TRANSCRIBED INTERVIEW

Participant 2 Registered Nurse 27 June 2024

Age: 35

Gender: Female:

Highest qualification: Bachelor of Nursing Science Honors

Years of Experience: 9 years

Study site: UNAM main campus

Researcher: Good morning. Good morning, sister. How are you doing?

P2, RN: Good morning. I'm. Doing very well. How are you, sister?

Researcher: I'm doing well. Thank you, sister. Thank you very much for agreeing to participate in this study. I appreciate your time. And yeah, we will soon start with the research questions.

P2, RN: I Nurse: OK. All right.

Researcher: Sister. Please describe to me your current roles or practices related to the early identification of students who have mental health issues.

P2, RN: Alright, so I'm a registered nurse practicing and providing primary healthcare services to students at the university. So my role in early identification of anxiety, depression, and students who have suicidal ideations is that I'm the first point of contact for these students when they're coming to the facility. I assess what they are complaining about. After the evaluation, if I conclude that they are dealing with ADSI issues, I refer them to the relevant healthcare professionals for service.

Researcher: OK. Would you please tell me whether your institution has procedures in place related to the earlier identification of students experiencing mental health problems?

P2, RN: Yes, as I mentioned, our role as nurses is mainly to conduct assessments and refer patients, but we work closely with other health providers, such as social workers and academic counselors, who use screening tools to delve deeper into identifying these issues. We also collaborate with what we call peer educators—students trained by professionals or academic counselors to develop the skills to identify fellow students who might be struggling with these issues. Regarding guidelines, we have protocols stating that if a student presents at the facility complaining of ABC and D, they must be referred to social workers. If social workers cannot handle the situation, they refer the student to academic counselors. Additionally, we emphasize that trained peer educators serve as our eyes and ears, monitoring their fellow students.

Researcher: How do you keep yourself up to date with mental health knowledge, about earlier identification of mental health issues among students?

P2, RN: Unfortunately, from where I'm sitting right now, I haven't had in-service training because I think the department has dedicated professionals to handle those kinds of issues. However, I have received basic training in assessing students so I can identify red flags and refer them appropriately.

Researcher: Ok. Please share whether you have collaboration in place with the academic team regarding students' mental health support.

P2, RN: Yes, indeed, the collaboration is there; lecturers are aware of the services offered in our directorate. So, whenever they encounter students experiencing mental health issues, they refer them to us in the clinic.

Researcher: OK. How do you engage students in ongoing training, education, or information sessions that raise awareness of mental health challenges?

P2, RN: The university is very proactive when it comes to information sharing. There is a Health Week we celebrate every April, during which we address various issues, not only mental health but also general health concerns students might face. During these platforms, we disseminate information to students about mental health issues. We also observe Mental Health Day, where nurses, social workers, and academic counsellors participate. We invite external stakeholders, including professionals from other institutions such as the Minister of Health, to make the mental health day as comprehensive as possible. Ultimately, this helps us to teach students how to care for themselves.

Researcher: OK. Thank you, sister. Regarding awareness of mental well-being, how receptive is the student audience?

P2, RN: The audience is quite responsive. I've noticed that when we start marketing the event the day before the actual day, students learn about it and come in larger numbers. Students are usually inquisitive; they want to know what is being offered, why it interests them, and what role they can play in these events. Generally, they are very receptive to the initiatives we introduce.

Researcher: OK. Does the academic staff also participate in those awareness campaigns?

P2, RN: I would say I have not. I have not seen any academic team at these events. I think that is also due to my not issuing an invitation to them because we usually reach out to professionals outside of the university. So I think it's just a matter of giving them an invitation because I don't believe they would decline, especially since we also have academics and staff who are professionals in this field. We have lecturers teaching students about psychiatry, lecturers studying and teaching students about psychology, and lecturers teaching students about mental health issues. Moving forward, if we want to make it as comprehensive as possible and include more professionals, we just need to extend an invitation to them.

Researcher: OK. Have you ever faced barriers or challenges in identifying students experiencing mental health conditions?

P2, RN: No, I've never had any challenge in identifying students experiencing mental health conditions. From where I am seated, I see students who are already presenting with problems, but I think I haven't really addressed the issue of going into the academic community to screen and identify them. Those who haven't come forward to present themselves at the clinic are the ones I haven't identified. However, for students who are already showing signs and symptoms,

I haven't had any difficulty identifying them and concluding that they are facing a mental health challenge.

Researcher: Thank you so much, sister. Would you please describe or just mention the most common mental conditions that your students are experiencing?

P2, RN: OK, so the major conditions I noticed in the facility are anxiety. Usually, when academic stress is high, students exhibit anxiety. Especially during exams, students tend to show anxiety. I have also received students suffering from depression and some with suicidal ideations. I think around 2:00, or even more, I have received students who are already diagnosed by professionals at the ministry, with conditions such as bipolar disorder or schizophrenia. These are the most common conditions I have observed.

Researcher: OK. May you please share your experience of how you identified the student experiencing mental ill and discuss how successful your intervention was.

P2, RN: Always very successful. The intervention has consistently been effective because #1, I believe the ability to intervene early, when conditions are just beginning, makes it highly successful in preventing full-blown major mental health issues. #2, prompt referral to the next level also helps, as it de-escalates situations that could escalate and become very problematic for the student. Additionally, #3, most of these students, when we re-engage and reevaluate, are able to recover without needing treatment; it's often just about linking them to counseling. Once they receive proper counseling, they can address their mental health challenges, and those who do seek professional treatment benefit from medication, which helps keep their condition controlled.

Researcher: That is very good, sister. Have you ever come across a student who has a different perception or who is reluctant to admit their mental health challenges?

P2, RN: Personally, I have picked up a student when they are coming into the facility, and upon assessment, we conclude that it is a mental health issue, and they are accepting of the diagnosis. But then, as far as saying that we are going to manage this condition by referring you to professionals who are at the psychiatric unit, they do not want to go because they are relating the psychiatric unit as a place where only people who are "mad", you know. I'm saying that I'm not sleeping. I'm not eating. I'm isolating myself. And you are saying that you,, as a nurse,, were telling me that I am depressed, but you want me to go to a psychiatric unit,, and then you are saying that i am mad. So it's just a matter of shifting, that. For example, going to a psychiatric unit does not mean that you are "mad". You are going to a professional; their department is a psychiatric unit, where they will be able to cater to your needs. We are not saying that you are mad. Some have been reluctant to go because of the stigma associated with mental illness in the community. That I'm coming from, get to hear that. I am going to this kind of place, and I'm going to be stigmatized. So that is where they are coming from.

Researcher: How do you ensure that the student you refer has reached the place of referral and received specialized mental health care?

Site 2 Participant 1 Nurse: Ok. The thing is that for every student who is coming to the clinic, we take record-keeping seriously. We do not refer any students to a place without first taking a history and documenting it in their health passport. However, our outpatient registers also take the students' particulars, names, student numbers, and cell phone numbers. Who is their next of kin? What kind of course are they doing? And then upon the referral, even if you were referring to at the next professional who is in the same department, we write this referral letter, the student goes with your referral letter to that particular highest professional and then afterwards we want them to give us feedback that the feedback itself is just a matter of actually going to that professional that I've referred the student if it's within the department, the same department? I've referred this patient to you with this kind of problem. Did they present, and what was the outcome? I also want to follow up with them to let you know that I've referred you to a professional of this kind. What has it been for you? How have you been responding to the type of care you received? So, we need to ensure that we not only refer verbally but also document our actions and actively take the initiative to say, "Let me call this patient back." And see what the outcome has been.

Researcher: What can you recommend that the university do regarding the early identification of mental health conditions?

P2, RN: I think the university has been proactive in addressing mental health issues within the student community. They have what is called an A buzzer app. The app is available for download on the Play Store, provided students have a smartphone. Upon logging into their buzzer app, students can be connected to any healthcare professional they need, whether it's a social worker or an academic counselor, depending on the problems they are facing. I believe the main issue now is that we need to promote this buzzer app as much as possible because the truth is, we as healthcare professionals are not always available when students need us. They meet our needs when they're at home, and unfortunately, we are late in responding due to working hours. As long as each student knows that if they cannot be linked to a healthcare professional through this app, it's okay, then it will help. We also need to develop mechanisms for students without smartphones, as they are at a disadvantage. What can they do? Unfortunately, they might need to come to us in person or connect with a peer educator nearby who can help them access the service. Therefore, I think it's just a matter of promoting this buzzer app more, because I believe this is our link to students who need our services. I suggest we put more emphasis on promoting the app since I don't think all students are aware of it.

Researcher: OK. Thank you, sister. Thank you very much for your time. I appreciate your participation in this study. Thank you once again.

P2, RN: Thank you so much.

ANNEXURE 16: STUDENT COUNSELLOR VERBATIM INTERVIEW

Participant 4 Student counselor

Section A: Demographic data 19 June 2024

Age: 50

Gender: Female

Job title: Social Worker

Highest qualification: Bachelor's degree in social worker

Years of experience: 25

University: NUST Main campus

Section B

Researcher: Good morning. Thank you for allowing me to interview you as part of data collection for a research project.

P4, SC: Thank you, also, for the opportunity to share my own experience

Researcher: OK, as a social worker, would you please describe your current practices of identifying early students experiencing anxiety, depression, or suicidal thoughts?

P4, SC: There are various ways I can become aware of students who might be struggling with depression, anxiety, or suicidal thoughts. First, lecturers refer students to me. Second, students visit my office themselves to share their challenges or feelings. Sometimes, they are also referred to by family members or colleagues. The last method is through friends or classmates who express concern for a student, which is how students are usually referred.

Researcher: What are the available protocols or guidelines that you follow regarding the early identification of students who have mental health issues?

P4, SC: Currently, we lack specific protocols and guidelines. The protocols and procedures I follow are usually based on what I have learned or experienced here. So, if a student is referred, I typically ask certain questions about their mental health. Then, I make a referral if necessary. At this point, I do not feel qualified to assist a student.

Researcher: So that means your campus has no such protocols. Do you receive any in-service training at all pertaining to that?

P4, SC: We, as social workers at the institution, do not offer any specific training. I attend conferences and try to participate in at least one seminar or training each year. Additionally, as a social worker interested in expanding my knowledge about mental health, since this issue is increasingly common among students, I have also pursued my own training through various websites and institutions.

Researcher: May you please share your experience of a case where you assisted a student experiencing depression, anxiety, or suicidal ideation by measuring how successful your intervention was?

P4, SC: The way the procedure usually works with me as a social worker, and the fact that we do not have a psychologist on campus, is that the first thing I typically do is refer students to the mental health unit at Central Hospital. This is the government mental health unit, where students are referred and sometimes receive counseling as well as medication. Because the unit is often busy, I also personally take on students for intervention. We usually focus on understanding the mental health issue, such as anxiety or depression, and then examine the causes, which often involve trauma. We work through that and aim to build their mental health wellness through coping strategies and skills they can learn. This approach helps students dealing with mental health disorders, and I believe there has been some success. I believe students develop resilience and mental and emotional reserves, enabling them to better cope with challenges. Usually, when they face difficulties, they return for additional support and discussion.

Researcher: Have you ever dealt with students who are reluctant to accept their mental health conditions?

P4, SC: Yes. I especially think of students who have some measure of schizophrenia or hallucinations. Those students are usually not open at first to seeking help or even accepting help. So in those cases, it's usually a student who has to go through some medication to assist them, and then from there, we can help them. But yeah, there have been students, especially with conditions like schizophrenia or hallucinations, that students are finding difficult. However, most students have generally come a long way in dealing with depression and anxiety. They probably struggled with it for a year or even since school started. By the time they seek help, they know something isn't right. Yeah. And of course, there is also the cultural aspect, and in that case, there are many discussions about it.

Researcher: Does your intervention help to change their perception of their mental health challenges?

P4, SC: Yes, yes, I think they do realize, I guess, because of the stigma. Many people still feel that mental illness means the person is crazy. But when you start discussing the biology behind it as well, they begin to see that it's an illness like any other. And that's how you deal with that challenge.

Researcher: How do you collaborate with the academic staff members regarding mental health care for the student?

P4, SC: Yes, I believe the lecture serves as the first point of reference. They will contact me since they are aware of who I am. I always ask lecturers to include their personal

experiences in writing for the class and as a resource for students. We also have Mental Health Week, during which we try to include lectures, academic talks, and staff members. The goal is to raise awareness about mental health issues, the challenges involved, and how they can specifically utilize my support. OK, yeah.

Researcher: How good is the academic staff attendance?

P4, SC: It would be great if there were more interest, but you have a few staff members and lecturers who attend. The involvement of academic staff isn't so high, so they are not always involved. They are not willing to participate in those events.

Researcher: Yeah, you just mentioned that you used. So that means you are currently engaging students in mental health talks and so forth. Am I right?

P4, SC: Yes, yes. We also utilize our various social media platforms, including Facebook, YouTube, and Instagram, to increase awareness about mental health and mental illness.

Researcher: How effective are the student attendance rates about the awareness campaigns?

P4, SC: They are interested, and you can confidently say that, over the past few years, there has been an increase in interest and awareness about the stigma. Students are much more open, and I've observed this firsthand. We also started a peer support group this year, which includes several students experiencing depression, to attend small group sessions. We've received a lot of positive feedback because students feel that sharing their own experiences with peers who are facing similar symptoms and challenges related to depression and anxiety is beneficial. It's quite encouraging because, often, the problem is that people feel misunderstood, and small groups help diminish this fear.

Researcher: Oh. Okay. How do you refer students to other facilities when they need specialized care? Do you have the referral forms and follow-up protocols in place if you request them from other facilities for mental health?

P4, SC: We usually have two options. First, the mental health unit. As I've mentioned, I typically refer students through a letter they take with them, and we don't get feedback from them directly. However, I usually ask the student to come back to me for further counseling and to discuss their experience with the mental health unit, including the medication they are taking. The second option is a private psychologist. In that case, I ask the student to return to me as well, because confidentiality can be a challenge. Usually, if there are any concerns, the private psychologists will contact me directly so we can have a further discussion.

Researcher: That is a perfect point. You collaborate with private consultants, right? Do you refer privately only to students who have medical aid or even those without medical aid?

P4, SC: No, unfortunately, students without medical aid. I've tried offering pro bono services, and a few students have been referred to private psychologists for free. But this situation does occur. Yeah, very rarely.

Researcher: What improvement can you suggest that the institution make regarding the early identification of mental health problems among students?

P4, SC: I would start with the first year. I know some universities have a specific assessment that they do, which is a questionnaire for all first-year students, helping to identify risk behaviors and situations. I think this should be the first point to focus on. Additionally, I believe collaboration between the department and academic lecturers is crucial, as they are the first point of contact. Increasing awareness is also important, as it will help students and peers become more mindful of warning signs. Furthermore, this year we are initiating peer counseling training, aiming to identify students within the community who can recognize issues and refer peers to social workers or psychologists if necessary.

Researcher: Thank you so much for your contribution. Highly appreciated.

P4, SC: Thank you very much, good luck with your studies.

APPENDIX 16 MENTAL HEALTH SUPPORT PERSON

Participant 11 Support person 27 August 2024

Section B: Demographic data

Age: 46

Gender: Male

Job title: Campus Director

Highest qualification: PhD

Study site: Eenhana satellite campus

Section B

Researcher: Good morning, doctor. How are you doing this morning?

P11, SS: I am ok, thank you

Researcher: Could you please share your duties regarding the provision of mental health care to students?

P11, SS: Yes. Thank you very much for the opportunity to be part of your studies professionally. I educate, I am an educator, and I have been involved in many different activities that involve human interaction. Solving issues and challenges in life is something we are passionate about, even though it is not my main profession. Of course, it is our duty to assist. Having transitioned from high school to university and now serving as an administrator, I have developed a passion for resolving issues. With our students in particular, my role here on this campus is multifaceted because the campus is new. To some extent, I even set aside my original job description when we were hired to tackle problems as they emerged. On campus, I oversee everything. I supervise two staff members and oversee administration, as well as academic affairs. In these roles, I deal with staff members and students, which often involves addressing challenges and problems. In the absence of these two appointments, everything tends to end up on my desk. We have connections that do their part, but because of our passion and involvement, there are also cases where a student might be pregnant and suicidal, or under a lot of stress. You might get a call regarding these issues, and you do what you can to help students, either resolving the problem or referring them to other support services.

Researcher: Could you please share the most prevalent mental health problems students experience?

P11, SS: Substance abuse and drug misuse that cause disruptive behaviour or lead to lifestyles not beneficial for a student's well-being. Some students, in other words, use drugs or abuse alcohol to such an extent that it affects their schoolwork and behaviour. Unplanned pregnancies can lead to suicidality, especially when those involved do not receive the necessary care. Poverty also contributes to these issues. In some cases, students have enrolled in programmes without parental support, leading to financial difficulties that affect their outlook and decisions.

Researcher: OK. Does your institution have procedures in place related to the early identification of students experiencing mental health challenges?

P11, SS: I can say yes, even though not documented, but. The fact that it's a satellite campus. We tried to replicate what is happening at the main campus and, if possible, refer some of the students to them. My office needs to be well informed about students' progress, comments, and the challenges lecturers encounter in their classes, so that they can be the first to identify any issues. Whatever challenges they face, they deal with them themselves. If it has reached a point where they need assistance from a third party, then, of course, that problem is reported to my office, and that's when I can step in and address such cases. The whole idea, and this is what we emphasise to our lecturers during the induction, is to be there for students, even though we teach at the same time. Of course, they need to be aware of their students' well-being.

Researcher: How do you deal with mental illness crises, such as maybe psychosis or a suicidal attempt, on campus? Have you ever perhaps dealt with such cases on campus?

P11, SS: Suicide some problems resolve without even referring to professionals. Sometimes students need advice, an ear to listen, and someone to share their challenges and problems with. After listening, of course, I provide advice. Working together as a team, we reach a level of confidence that it is not necessary to end one's life; instead, we focus on training and exploring alternatives to resolve problems rather than resorting to such measures. This approach helps create another path for themselves and their family.

Researcher: Is there any existing collaboration with other stakeholders, such as the line ministry, regarding mental health support for students at this institution?

P11, SS: Yes, with the Ministry of Health, they would come and talk to our students on general issues because something they can relate to, you know, so when they are ready, all the time, we refer our students there when needed.

Researcher: How do you coordinate the referral and feedback system here?

P11, SS: Our population is relatively small, with just 700. Things are still manageable. We know our students and ask for feedback when they return. We're going to our office to provide feedback. Once the case is resolved, everyone is happy, they regain their confidence, and all is well. It's always a joy to see them graduate after they have overcome all those challenges.

Researcher: Are you also familiar with this early alert programme and what does it involve?

P11, SS: Not that I'm familiar with. We identify our students early enough, as I mentioned, because our population makes it easy — we know our students well. Internally, staff members raise funds and buy food for some of them; they come to collect all these bags of lotions, basically what they need. We have a few projects on campus dedicated to ensuring that our students are supported.

Researcher: Thank you, doctor. Do you have a social worker or a clinic on this campus?

P11, SS: We don't have a clinic or a social worker here, but we get a mobile clinic twice a month on campus. They provide services related to family planning, cancer screening, and

other health information for students. We don't have a permanent station on campus, but we usually invite service providers from outside to visit. So far, it has been good.

Researcher: There is always a need for such services where there are people. We have a first aider on hand to attend to minor injuries or cases that arise. However, we need proper professionals here on campus because, currently, when students require these services, they must go to the hospital or nearby clinics, and there are all sorts of issues. It shouldn't be the case. One should have this on campus so that...

Researcher: Is there anything that you can recommend that the institution should do to improve the provision of mental health care? Speaker

P11, SS: Moving forward, we are awaiting completion of our own infrastructure. We aim to be like any other university, offering a clinic and health professionals. Our hospital is over 20 kilometres away, and the clinic is approximately 11 kilometres away. That is not good.

Researcher: Thank you, doctor. Thank you very much for your time, and your input is highly valuable.

P11, SS: Thank you all the best for your studies.

Researcher: Thank you, doctor.

APPENDIX 17: EARLY DETECTION SCREENING TOOLS

Early Detection Questionnaire for Anxiety, depression, and Suicidal ideation

Section A: Demographic data

This screening aims to identify early signs of anxiety, depression, and suicidal ideation among university students. The goal is to provide timely support, reduce risk, and promote student well-being. Your information will be kept confidential. Mark with an X in your

☐ I consent

☐ I do not consent

Age: _____

Gender: ☐ Male ☐ Female ☐ Other ☐ Prefer not to say

Faculty: _____

Campus: _____

Academic Year: _____

Accommodation Type: ☐ On-campus ☐ Off-campus ☐ With family

Marital Status: ☐ Single ☐ Married ☐ Other

Employment Status: ☐ Unemployed ☐ Part-time ☐ Full-time

Any chronic health condition? ☐ Yes ☐ No If yes, please specify:

Section B: Generalised Anxiety Disorder

Over the past two weeks, how often have you been bothered by the following problems?

Item	Not at all	Several days	More than half the day	Nearly every day
Scoring	0	1	2	3
Feeling nervous, anxious, or on edge				
Not being able to stop or control worrying.				
Worrying too much about different things				
Trouble Relaxing				
Being so restless that it is hard to sit still				
Becoming easily annoyed or irritable				
Feeling afraid as if something awful might happen				

Section C: PHQ-9 Depression screening

Over the past two weeks, how often have you been bothered by the following problems?

Item	Not at all	Several days	More than half the day	Nearly every day
Scoring	0	1	2	3
Little interest or pleasure in doing things				
Feeling down, depressed, or hopeless				
Trouble feeling or staying asleep, or sleeping too much				
Feeling tired or having little energy				
Poor appetite or overeating				
Feeling bad about yourself, you are a failure, and you let your family down.				
Trouble concentrating on things, such as reading or watching TV				
Moving or speaking so slowly that other people notice, or being restless				
Thought of that, you would be better off dead or self-harming				

Total Score-----

Section D. Columbia -Suicide Severity Rating Scale (C-SSRS)

1 Have you ever wished you were dead or hoped you could fall asleep and not wake up?

☐ Yes ☐ No

2 Have you had any thoughts of killing yourself?

☐ Yes ☐ No

3 Have you been thinking about how you might do this?

☐ Yes ☐ No

4 Have you had these thoughts and intended to act on them?

☐ Yes ☐ No

5 Have you started to work out or carry out a suicide attempt?

☐ Yes ☐ No

Suicidal behaviour

Have you ever done anything, started to do anything, or prepared to do anything to end your life? ☐ Yes ☐ No If yes, please describe: _____

Any Yes on C-SSRS items 2-5: Consult the campus health team immediately.

APPENDIX: MODEL EVALUATION

MODEL EVALUATION TOOL

TITLE: An early detection model for anxiety, depression, and suicidal ideation among Namibia public university students

STUDENT: Kristine N Siseho

UNIVERSITY: Namibia University of Science and Technology

Consent statement

You are invited to take part in the validation of the Early Detection Model for anxiety, depression, and suicidal ideation among Namibian public university students. The purpose is to assess whether the model is clear, unambiguous, and suitable for use in Namibia. Therefore, your input is sought to either confirm or improve the model. Please note your information will be confidential and used for academic purposes only.

By proceeding with the questionnaire

- You have read and understood the consent
- You agree to participate in this information

Do you consent to participate (circle)

Yes

No

PURPOSE: EVALUATION OF THE MODEL

Introduction

Mental health conditions (anxiety, depression, and suicidal ideation ADSI) among the undergraduate students from Namibian public universities are prevalent. Early detection and support for students experiencing ADSI are crucial and will contribute to students' overall well-being. I hereby ask for your expertise in evaluating and validating the attached Model for anxiety, depression, and suicidal ideation for public university students, to ensure early detection and support for the affected students.

Objective of the model

The model was created to guide mental health providers in the early detection of students experiencing ADSI, through screening, scoring, diagnosis, and outcomes.

The model was developed based on peer-reviewed articles, students, and health provider data, which formed the study population. The evaluation criteria are based on Chinn and Krammer (2018).

1. Concepts identified: Early detection, anxiety, depression, and suicidal ideation
2. Relationship statement: determine how the concepts are interrelated
3. Model construction: visually oriented projection of the model
4. Validation and Evaluation: to ensure the model is coherent, logical, comprehensive, and applicable to practice

Description of the model

The purpose of the model

The purpose of this model is to help the mental health provider to early identify the students experiencing ADSI, as they are often underrated, linked to stigma, and limited awareness campaigns. Early detection improves students' mental health outcomes through regular screening using the validated tools PhQ-9, GAD-7, and C-SSRS. Universities can use the EDM to improve health-seeking behaviours. Improved intersectoral collaboration among the stakeholders improves mental health outcomes. Universities can integrate this model into students' dashboards to make it user-friendly. Capacity building for long-term sustainability requires ongoing training for nurses, student counsellors, academic staff, and peer educators. Formulating mental health policy for public universities is necessary to formalise ethically bounded screening practices.

The structure of the model

The model described the sequence of steps for assessing and screening students for mental health conditions. The model has the following phases: screening, scoring, diagnosing, and outcome.

Step 1: Screening tools

The first step of this model involves validated screening tools (Columbia Suicide Severity Rating Scale, C-SSRS; General Anxiety Disorder, GAD-7; and Patient Health Questionnaire, PHQ-9) to collect data from students.

Assessment tools

- C-SSRS

Using the Columbian Suicide Severity Rating Scale (C-SSRS), students will be screened for suicidal ideation. Any “Yes” response is a point of referral, as there is a thin line between active passive suicidal ideation and active suicidal ideation. The referral logic have to be

activated by a nurse, or student counsellor or psychologist for advanced mental health support within 48-72 hours, with accurate documentation

- GAD-7

GAD-7 is a validated screening tool for generalised anxiety that has stratified scoring, ranging from mild 5-9, moderate (10-14), and severe (>15). This screening will guide the service provider on how to handle the participant's score, as mild is self-help, moderate is psychoeducation, and severe is formal counselling

- PHQ-9

The use of PHQ-9 was adopted for its scientific measurement of depression symptoms. It also uses a four-point Likert scale and stratified scoring, with mild, moderate, and severe classifications.

Step 2 Scoring criteria

The scoring phase, influenced by HBM and the perceived severity of the ADSI, as presented in Figure 6.1, commences when mental health providers establish the environment to facilitate student screening. The initial phase specifies the screening tool to be used to collect the pertinent data. This phase aims to score the findings and classify the data collected from the students. This stratification includes Mild (5-9), Moderate (10-14), and Severe (>15). Data from C-SSRS, GAD-7, and PHQ-9 will yield an outcome for the student's mental well-being, as shown in the figure below, for stratification of scores.

Step 3 Diagnosis

The third phase of this study included the diagnostic criteria for the intensity of anxiety and depression. This criterion unpacks the following classification: mild, moderate, and severe symptoms. While suicidal ideation is a 'yes' or 'no' question, implying that any "yes" response is considered a severe diagnosis, as highlighted in the figure below. This phase aims to diagnose the student's mental health conditions and classify them based on the data. The final score will provide a platform for mental health care providers to present the outcome and decide which intervention is necessary.

Step 4 Outcome

Information will be shared about the nature of mental health conditions. The universities are expected to disseminate information on notice boards and through ongoing mental health awareness campaigns, thereby reducing stigma associated with mental illness. The support received may improve mental health-seeking behaviours and resilient student retention.

EXPERT/STAKEHOLDER FEEDBACK QUESTIONNAIRE

Title: Validation for the Early Detection Model for Anxiety, Depression, and Suicidal Ideation among Public University Students.

Purpose: To collect stakeholder insights to assess and improve the relevance, feasibility, and effectiveness of the proposed early detection model.

Section A: Respondent Information

1. Name (optional): _____
2. Role/Expert (tick one):
 - I. Student counselor
 - II. Registered Nurse
 - III. Mental health specialist ☒
 - IV. Mental Health Support person
 - V. Research/Supervisors
 - VI. Doctor (mental health unit)

Section B: Feedback on Model Components

1 Significance of the model

Does the model address important mental health issues among university students?

Yes ☒

No

Not sure

Please explain: _____

2. Internal consistency

Are the relationships between screening, planning, classification, diagnosis, and intervention clearly defined?

Yes ☒

No

Partially

Comments: _____

Are the concepts within the model clearly defined, and does the model accurately reflect the screening and scoring of anxiety, depression, and suicidal ideation?

Yes ☒ X

No

Not fully

Suggestions for improvement: _____

3. Parsimony of the model

Is the model simple and easy to understand?

Yes ☒ X

No

Needs adaptation

Details: _____

4. Testability of the model

Can the model be implemented in the public university settings?

Yes ☒ X

No

If yes, please specify: _____

5. Empirical adequacy

Is the model supported by current mental health screening practices and evidence

Yes ☒ X

No

Somewhat

_____ What should be added or changed? __Mental Health Program
Policy Makers can also be included

6. Pragmatic adequacy

Will the model improve the early detection of depression, anxiety, and suicidal ideation?

Yes **X**

No

Needs revision

Comments: _____

8. Are the procedures or activities described in the model realistic and in line with current practice?

Yes **X**

No

Needs revision

Comments: _____

9. Are there any procedures that are missing or unclear?

Yes

No **X**

If yes, please describe: _____

Terminus (The goal or intended outcome)

10. Do you agree with the stated goals or outcomes of the model (resilience, improved quality of life, reduced complications)?

Yes **X**

No

Needs refinement

Feedback: _____

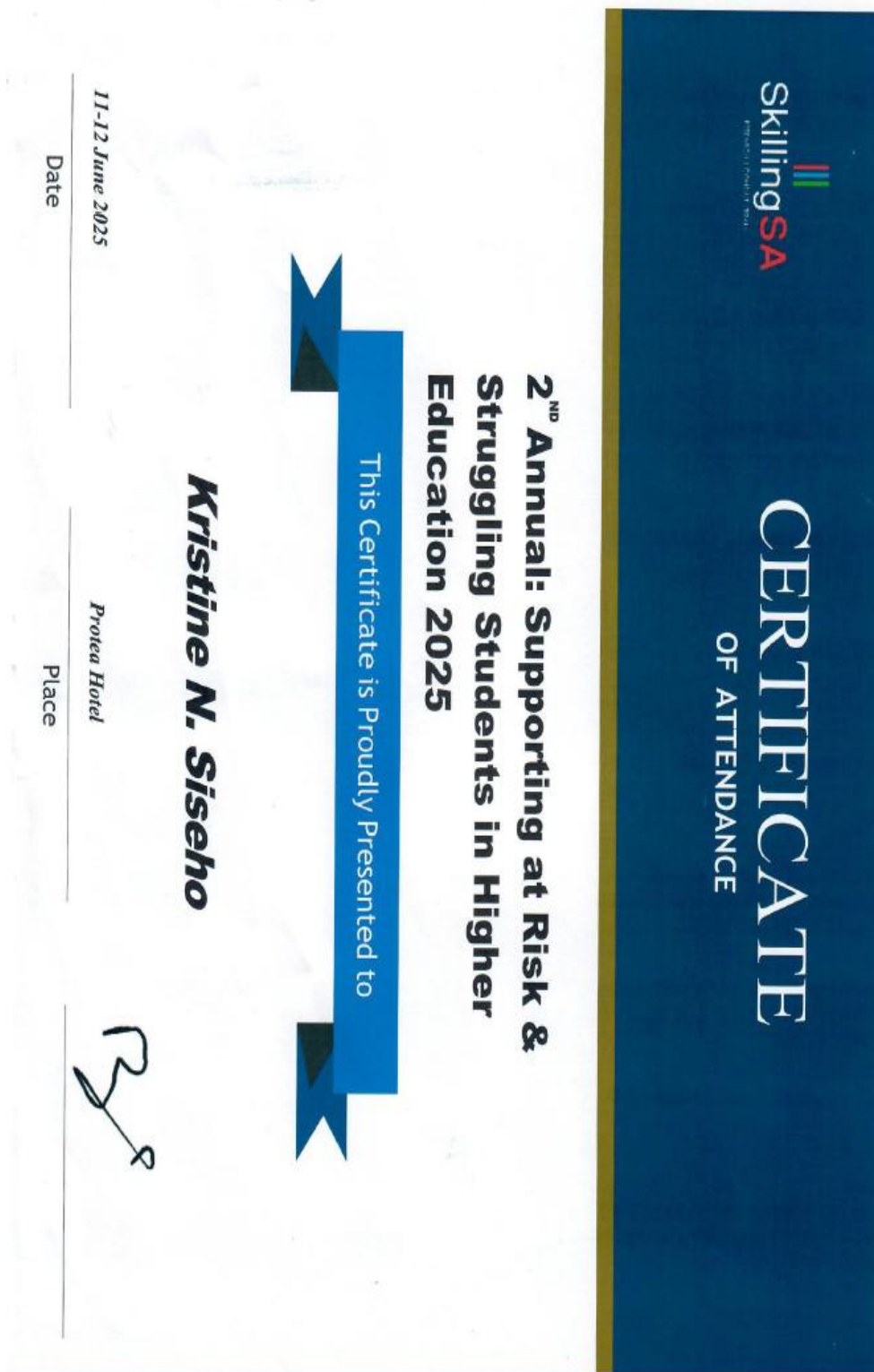
Section C: Overall Assessment

What do you like most about the model?

I like the fact that it looks at early detection for anxiety, depression, and suicidal ideation among public university students, which are the common conditions in the country and the tools can be self-administered.

What is the biggest weakness or challenge of the model?

APPENDIX 18: CERTIFICATE OF ATTENDANCE



APPENDIX 19: LANGUAGE EDITOR

Dr Theresia Mushaandja, BED Sec (English); BA Hons in English Studies; M.A. in English Studies; Editing and Proofreading certificate (UCT), PHD in English Studies; Senior Lecturer, English (NUST)
JOTERSS English Language and Research Private Academy (Chief Editor)
P.O. Box 487, Windhoek Tel: 0816408864 Email: joterss2014@gmail.com

02 December 2025

To: Whom It May Concern

Re: Editor's report

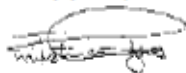
This letter attests that I, Dr Theresia Mushaandja, from the Language and Research Academy, cited above, conducted the language editing of the research report titled **AN EARLY DETECTION MODEL FOR ANXIETY, DEPRESSION, AND SUICIDAL IDEATION AMONG STUDENTS AT PUBLIC UNIVERSITIES, NAMIBIA.**

The following linguistic components and features were focused on: concord, which is the agreement between subjects and verbs. Sentence construction, at times, one finds that some sentences may need rephrasing to make sense or may need to be shortened or completed for the same effect. Consistency in the use of words, tenses, and forms of language. Another area that I focused on is the use of punctuation, especially the omissions and or the overuse. I also suggested changes where words with the same meaning were used but did not express the idea fully in the context they were used.

As I edit, I set the computer's English Language to UK and not to USA. I also made use of track changes, so that the student, and if need be, the supervisor, will be able to track the changes I suggested, to accept or decline them as may be found appropriate.

For additional questions and clarity, do not hesitate to contact me at 08164 088 64 or e-mail me at joterss2014@gmail.com

Sincerely yours,



T. Mushaandja (Language Editor)