



**Faculty of Cognitive Sciences and Human Development**

**DEPRESSION, ANXIETY AND SUICIDAL IDEATION AMONG  
UNIVERSITY STUDENTS: A PREVALENCE STUDY**

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**DEPRESSION, ANXIETY AND SUICIDAL IDEATION AMONG UNIVERSITY  
STUDENTS: A PREVALENCE STUDY**

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## **ABSTRACT**

The prevalence of depression, anxiety, and suicidal ideation among university students is a critical public health concern. This study aimed to examine the prevalence and severity of these mental health issues among students at Universiti Malaysia Sarawak. A cross-sectional survey design was employed, with data collected using the Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder-7 (GAD-7), and the Suicide Behaviors Questionnaire-Revised (SBQ-R). A total of 381 students participated, providing demographic information and responses to the mental health assessments. Results indicated that 26.77% of students experienced moderate depression, with 16.27% reporting severe depression. Anxiety was prevalent, with 33.60% experiencing mild anxiety and 21.00% severe anxiety. Suicidal ideation was identified in 47.77% of participants, categorized as high risk. Gender differences were notable, with female students reporting higher levels of severe depression and anxiety compared to males. The prevalence of mental health issues varied across different faculties and years of study, highlighting the need for targeted mental health interventions. These findings underscore the importance of university-based mental health services to support students' well-being and academic success.

*Keywords:* Depression, Anxiety, Suicidal Ideation, Mental Health, University Students, Prevalence Study

## **ABSTRAK**

Kelaziman kemurungan, kebimbangan, dan pemikiran bunuh diri dalam kalangan pelajar universiti adalah kebimbangan kesihatan awam yang kritikal. Kajian ini bertujuan untuk mengkaji kelaziman dan keterukan isu-isu kesihatan mental ini dalam kalangan pelajar di Universiti Malaysia Sarawak. Reka bentuk kajian keratan rentas telah digunakan, dengan data dikumpulkan menggunakan Kuesioner Kesihatan Pesakit-9 (PHQ-9), Gangguan Kebimbangan Umum-7 (GAD-7), dan Kuesioner Tingkah Laku Bunuh Diri-Semakan (SBQ-R). Sebanyak 381 pelajar mengambil bahagian, memberikan maklumat demografi dan jawapan kepada penilaian kesihatan mental. Keputusan menunjukkan bahawa 26.77% pelajar mengalami kemurungan sederhana, dengan 16.27% melaporkan kemurungan teruk. Kebimbangan adalah lazim, dengan 33.60% mengalami kebimbangan ringan dan 21.00% kebimbangan teruk. Pemikiran bunuh diri dikenal pasti dalam 47.77% peserta, yang dikategorikan sebagai berisiko tinggi. Perbezaan jantina adalah ketara, dengan pelajar perempuan melaporkan tahap kemurungan dan kebimbangan yang lebih teruk berbanding lelaki. Kelaziman isu kesihatan mental berbeza-beza di antara fakulti yang berbeza dan tahun pengajian, menekankan keperluan untuk intervensi kesihatan mental yang disasarkan. Penemuan ini menggariskan kepentingan perkhidmatan kesihatan mental di universiti untuk menyokong kesejahteraan dan kejayaan akademik pelajar.

*Kata kunci:* Kemurungan, Kebimbangan, Pemikiran Bunuh Diri, Pelajar Universiti, Kesihatan Mental, Kajian Kelaziman

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

In this chapter, the background of study was discussed. It also outlined the problem statement, research objectives and research questions. The definition of terms, the significance of the study, and the study's limitations were further described in this chapter.

#### **1.1 Background of Study**

Holtzheimer and Mayberg (2011) argue that depression has been recognised as a distinct and significant condition for more than two thousand years. The prevalence of depression among university students is significant and widespread across the country. University students form a unique group experiencing a substantial period of transition from childhood to maturity, which is commonly acknowledged as a particularly challenging moment in an individual's life (Sarokhani et al., 2013). Attempting to assimilate, maintain exemplary academic performance, strategize for the future, and frequently being away from home engenders anxiety among numerous pupils (Buchanan, 2012). As a result of this heightened stress, certain students experience depression. They come to the realisation that they are unable to gather themselves. Individuals with depression may exhibit persistent crying, frequent absences from class, or self-imposed social isolation, often without recognising these behaviours as symptoms of their depressive state. According to Ibrahim et al. (2013), more than one-third of students are believed to be experiencing moderate to severe depression at any given moment. This

percentage may be higher than that of the general population, as shown by Youssef and Deane (2006).

Depression is characterised by a blend of somatic, emotional, psychomotor, and cognitive dysfunctions that present as symptoms such as disturbed sleep, decreased focus, pessimistic thoughts, and feelings of guilt (Mellal et al, n.d.). The World Health Organisation (2023) reported that depression had a global prevalence of 280 million individuals, while anxiety disorders impacted around 301 million people. Additionally, the annual death toll from suicide exceeded 700,000. A cross-sectional study conducted by X. (Wang et al., 2020) in the 5 United States found that approximately half of the students experienced significant levels of depression, over one-third had notable levels of anxiety, and 18% reported experiencing suicidal thoughts. Less than half of the individuals reported feeling competent in handling the issue, but 71% indicated a significant increase in stress levels. Furthermore, the Healthy Minds cohort study conducted in the United States revealed that the prevalence of depression in spring 2020 was higher compared to autumn 2019, with rates ranging from 35% to 41%. The prevalence of nervousness remained consistent at 31% according to Martinez and Nguyen's (2020) study.

According to Ashari et al. (2022a), individuals with suicidal ideas usually try to kill themselves before they do. Their suicidal thoughts can range from general thoughts about death to more specific thoughts like ways to kill themselves. In a study conducted by Burrell (2023), it was shown that a significant proportion of college students, namely one in five, have experienced suicidal ideation. Moreover, over 9% of these students have made actual suicide attempts, while nearly 20% have reported engaging in self-injurious behaviours. The prevalence of suicide ideation among university students in Malaysia is comparable to that observed in various other countries. Based on findings from the Malaysian National Health and Morbidity

Survey (NHMS), it has been observed that persons within the age range of 16 to 24 years exhibit a higher propensity for experiencing suicidal ideation (Ashari et al., 2022b).

## **1.2 Problem Statement**

Suicide is seen as a significant health issue among university students in Malaysia. Researchers have conducted multiple studies on the frequency of depression among university students (Abd Hamid et al., 2020) and the factors associated with depression, anxiety, and stress among Malaysian university students (Shamsuddin et al., 2013). Nevertheless, there is a scarcity of research regarding the frequency of depression, anxiety, and suicide thoughts among college students. Ashari et al. (2022c) found that there is a lack of research conducted in Malaysia regarding suicide among university students. Additionally, only a few studies have examined the relationship between depression, anxiety, and suicidal thoughts among university students in Malaysia. In order to effectively prevent suicide among university students in Malaysia, it is crucial to have a comprehensive understanding of the anxiety and sadness that are linked to suicidal ideation. Hence, this study aims to investigate the frequency of 6 depression, anxiety, and suicidal thoughts among university students in Malaysia. The results of this study will enhance the development of interventions for campus health services, empowering them to more effectively assist students in adapting and coping with challenging situations.

## **1.3 Research Objectives**

### **1.3.1 General Objective**

To examine the prevalence of depression, anxiety and suicidal ideation among Malaysian university students.

### **1.3.2 Specific Objectives**

- To determine the level or severity of depression, anxiety and suicidal ideation among university students.
- To determine the prevalence of depression, anxiety and suicidal ideation between gender, year of study and faculty among university students.
- To determine the relationship between depression, anxiety and suicidal ideation among university students.

### **1.4 Research Questions**

- What is the level or severity of depression, anxiety and suicidal ideation among university students?
- What is the prevalence of depression, anxiety and suicidal ideation between gender, year of study and faculty among university students?
- What is the relationship between depression, anxiety and suicidal ideation among university students?

### **1.5 Research Hypotheses**

- The levels of depression, anxiety and suicidal ideation are high among university students.
- Female students, third year students and Faculty of Medicine and Health Sciences students are more prone to depression, anxiety and suicidal ideation compared to others.
- There is a significant relationship between depression, anxiety and suicidal ideation.

## 1.6 Conceptual Framework

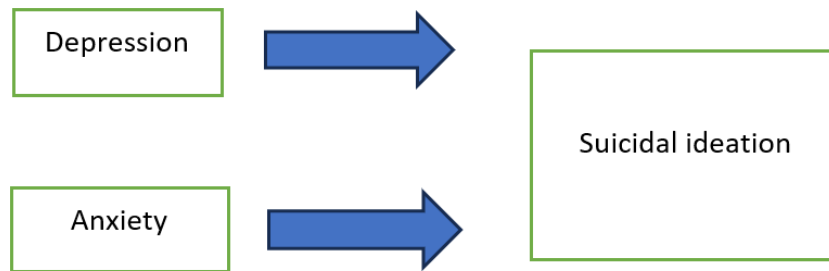


*Figure 1.6. Conceptual framework of the study*

## 1.7 Significance of Study

The objective of this study is to investigate the frequency of depression, anxiety, and suicidal thoughts among college students. This is because there has been a lack of extensive scholarly research on the mental health of university students. Hence, this study aims to provide valuable insights and knowledge regarding the frequency of depression, anxiety, and suicidal thoughts among university students, specifically targeting the community of readers interested in this research. Increased public awareness of this information could potentially enhance their ability to provide effective social assistance to university students. Furthermore, this study can potentially serve as a foundation for future research endeavours. Continual research is necessary to investigate the frequency of depression, anxiety, and suicidal thoughts among college students, which in turn yields novel discoveries and theories. This study can serve as a platform for university students to articulate their opinions, viewpoints, and emotions in addressing the challenges of depression, anxiety, and suicide thoughts that they encounter.

## **1.8 Definition of Terms**

### **1.8.1 Depression**

**Conceptual Definition:** According to Wikipedia (2023), depression is a mental state of low mood and aversion to activity.

**Operational Definition:** The PH-9, a nine-item instrument, was utilised in this study to assess depression. The instrument is based on the criteria outlined in the Diagnostic and Statistical Manual for Mental Disorders for diagnosing a major depressive episode.

### **1.8.2 Anxiety**

**Conceptual Definition:** Anxiety, as per the definition provided by Merriam-Webster (2023), is an atypical and overpowering feeling of unease and fear, often accompanied by physical manifestations such as tension, perspiration, and elevated heart rate. It is characterised by uncertainty regarding the existence and nature of the perceived threat, as well as self-doubt regarding one's ability to handle it.

**Operational Definition:** In this paper, anxiety levels were assessed using the GAD-7, a seven-item tool designed to screen for and measure the severity of generalised anxiety disorder (GAD).

### **1.8.3 Suicidal Ideation**

**Conceptual Definition:** Suicidal ideation, as per the definition provided by Merriam Webster (2023), refers to the act of contemplating or being intensely focused on ending one's own life; it involves the process of contemplating or devising a plan for suicide.

**Operational Definition:** In this paper, the Suicide Behaviour Questionnaire-Revised (SBQ-R) is a clinical research tool that aims to quantify and evaluate suicidal ideation.

## **1.9 Summary**

This chapter provides the study's background, problem statement, research aims, questions, hypotheses, conceptual framework, term definitions and the significance of the study. This study delves into the critical issue of depression, anxiety, and suicidal ideation among university students in Malaysia. With university life being a significant transitional phase fraught with academic pressures and social adjustments, the mental health challenges faced by students are profound. Furthermore, the study's results can serve as a foundation for future research, fostering a deeper understanding of the interplay between depression, anxiety, and suicidal ideation.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

Chapter 2 is a thorough review of the literature that reveals the complicated web of depression, anxiety, and suicide thoughts among college students. From being a teenager to an adult, there are a lot of important changes that can be hard, and people often deal with more stress during this time. Anxiety, which is common at universities, shows up as unwanted thoughts that cause constant stress and worry, which in turn has negative effects on health and brain function. Several studies have looked at the different things that can be stressful for college students, such as academic pressures, money problems, and getting used to a new social and academic setting. The goal of this literature review is to bring together different types of research, including the Three-Step Theory of Suicide (3ST) and behavioral views, in order to give a full picture of how depression, anxiety, and suicidal thoughts affect people at university.

#### **2.1 Definition of Depression and Anxiety**

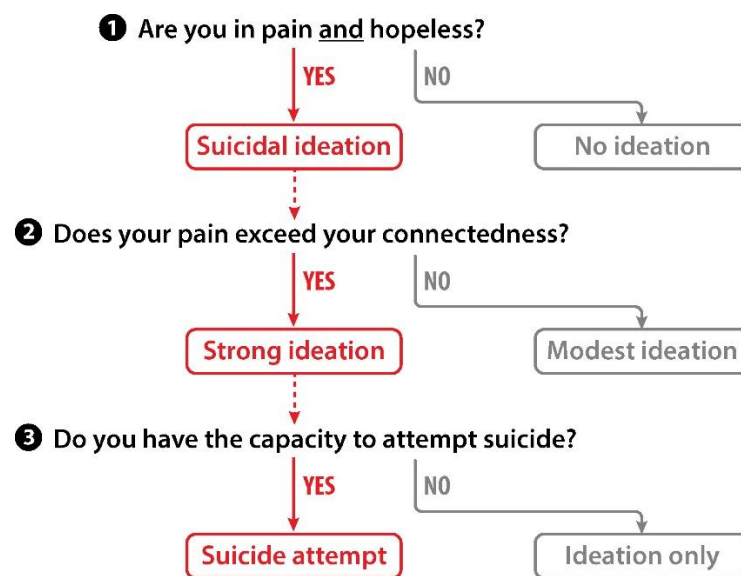
Depression, sometimes known as major depressive disorder, is a severe and widespread mood disease that is characterised by enduring feelings of sadness, hopelessness, and a reduced interest in previously enjoyable things. In addition to experiencing emotional anguish, individuals may manifest physical symptoms such as persistent pain or gastrointestinal problems (Truschel, 2022). The DSM-5 establishes specific criteria for the diagnosis of depression, mandating the presence of at least five symptoms, such as sad mood or loss of interest, for a minimum duration of two weeks. The symptoms include alterations in mood,

fluctuations in weight or hunger, reduced cognitive and physical functioning, weariness, feelings of insignificance, decreased ability to concentrate, and persistent thoughts of death or suicide (Tolentino & Schmidt, 2018). Typically, every person will encounter emotions of melancholy or despondency at least once throughout a specific timeframe (Romero et al., 2015). Some individuals experience transient emotional problems or depression. Nevertheless, if the situations are severe, feelings of depression can endure for a prolonged duration. Extended periods of depression serve as a sign of detrimental actions like suicide and a serious psychiatric disorder (Esperanza & Bulusan, 2020). Undoubtedly, depression poses a significant risk to an individual's cognitive, emotional, social, and physical well-being.

Anxiety is prevalent university students. Anxiety, as defined by the American Psychological Association (2018), is marked by enduring intrusive thoughts and concerns that lead to ongoing anxiety and tension. Anxiety can be described as an increased state of concern and fear compared to typical circumstances, resulting in negative thoughts and predictions about upcoming occurrences (Perrotta, 2019). The frequent experiences of increased anxiety and fear have additional repercussions, such as negative impacts on health outcomes (Roest et al., 2010), disruptions in sleep (Ramsawh et al., 2009), and worse cognitive function (Derakshan and Eysenck, 2009). To make a diagnosis, the person must experience three or more of the following six symptoms: restlessness, exhaustion, reduced ability to concentrate, irritability, muscle tension, and sleep problems. To satisfy the requirements, these symptoms must persist consistently on a majority of days within the last six months (Arnold, 2022). This detailed explanation improves the clinical identification and classification of anxiety disorders.

## 2.2 The Three-Step Theory of Suicide (3ST)

Klonsky et al. (2016) propose that The Three-Step Theory of Suicide (3ST) utilises the ideation-to-action framework, builds upon existing research and theory, and offers a succinct and empirically supported model of suicide. The main constituents of the 3ST are pain and despair, interconnectedness, and suicidal capability. The concept is concisely explained here and clearly shown in Figure 2.2.



**A** Klonsky ED, et al. 2016.  
**R** Annu. Rev. Clin. Psychol. 12:307–30

*Figure 2.2: The Three-Step Theory of Suicide Diagram*

### 2.2.1 Step 1: Emergence of Suicidal Thoughts

As per the 3ST, the initial stage of ideation commences with the experience of pain. Pain generally refers to psychological distress, such as sadness and anxiety, or emotional suffering. Nevertheless, the experience of suffering alone is insufficient to trigger suicide ideation. When

an individual experiencing pain holds onto hope for improvement and the reduction of their suffering, they will be motivated to pursue a future where their anguish is lessened rather than contemplating suicide. Therefore, the presence of hopelessness is also necessary for the emergence of suicidal thoughts (Klonsky et al., 2016).

Within the realm of university students grappling with issues such as depression and anxiety, the 3ST theory highlights that contemplation of suicide frequently originates from emotional distress, which, in this particular context, may be associated with psychological hardships. Merely experiencing pain does not directly result in suicide ideation. Hope is essential for students, as it instils the belief that improvements are possible. Within a university environment, when students encounter academic and social stressors, this sense of hope serves as a beacon, illuminating a future in which circumstances are enhanced. Conversely, when students experience a sense of hopelessness, believing that their suffering is overwhelming and unchangeable, it heightens the likelihood of suicidal ideation.

### **2.2.2 Step 2: Intense Versus Moderate Contemplation**

According to Step 2 of the 3ST, when an individual's pain surpasses their connectedness, their suicidal desire will escalate. Connectedness, as delineated in the 3ST, encompasses a wide-ranging concept that encompasses various forms of connection, including but not limited to deep interpersonal relationships, community involvement, occupational engagement, geographical affiliation, pet ownership, sports team affiliation, cherished identity or role, and a sense of purpose or significance. If the level of closeness surpasses the level of pain, the inclination towards suicide will be limited or sporadic rather than intense or enduring. Conversely, when the pain becomes too much or surpasses the feeling of connectivity, the

inclination towards suicide will escalate (Klonsky et al., 2021). Within the framework of depression, anxiety, and suicidal thoughts among university students, the second stage of the 3ST becomes notably significant. This stage emphasizes that the strength of suicidal inclination depends on the equilibrium between an individual's suffering and their sense of connection. Connectedness for students encompasses interpersonal connections with peers and family, active involvement in the community, contentment with academic or professional pursuits, and a feeling of direction and meaning.

### **2.2.3 Step 3: Progression from Ideation to Attempts**

Step 3 focuses on the circumstances in which intense thoughts of suicide develop into a possibly lethal suicide attempt. Nock et al. (2008) found that the majority of individuals who experience suicidal ideation do not make an actual suicide attempt. According to Joiner (2005), the intense dread of death generates a strong aversion that makes suicide attempts more challenging, particularly when there is a strong inclination towards self-destruction. Therefore, humans can only engage in suicide if they have acquired the ability to overcome this obstacle. The 3ST model classifies the factors that contribute to an individual's ability to commit suicide into three categories: acquired, dispositional, and practical (Klonsky et al., 2016).

The concept of acquired capability was initially expressed in Joiner's (2005) Interpersonal Psychological Theory of Suicide. Joiner observed that engaging in suicide is a difficult behaviour and that people have an inherent inclination, influenced by both evolutionary and biological causes, to fear and evade suffering, harm, and death (Joiner, 2005; Van Orden et al., 2008). Hence, engaging in suicide necessitates surmounting these apprehensions. Joiner proposed that individuals can develop the ability to overcome these concerns by experiencing

a range of life situations, such as engaging in self-harm without suicidal intent, having a history of physical or sexual abuse, using intravenous drugs, working in emergency or medical fields, and other similar circumstances. These experiences help individuals adjust to and develop a decreased sensitivity to the worries associated with pain, injury, and death. The 3ST acknowledges that some individuals may find that this particular experience can alleviate their worries about self-inflicted harm, physical harm, and death, hence increasing their propensity to engage in suicide behaviour.

Dispositional refers to inherent variables that are present from birth. For instance, several individuals possess innate variations in pain sensitivity, either higher or lower (Young et al., 2011). An individual with congenital hypoalgesia will possess an increased propensity to execute a suicide endeavour. Recent research conducted by Joiner and colleagues provides evidence for the notion that genetic factors play a significant role in determining an individual's propensity for suicide (Smith et al., 2012). This research highlights the influence of dispositional contributors on one's capacity for suicide. The second factor contributing to the ability to commit suicide acquired variables pertains to the same notion as described by Joiner. Specifically, becoming accustomed to experiences linked to pain, injury, terror, and death can gradually result in an increased propensity for attempting suicide.

Practical capability encompasses various characteristics that enhance an individual's ability to get and understand lethal methods. A prominent illustration in the United States pertains to the availability of firearms (Betz & Anestis, 2020). The practical capacity can occasionally see rapid growth. For instance, if someone discovers through web sources that an excessive amount of acetaminophen can be fatal, while ibuprofen is not, their practical potential to try suicide and cause their death has significantly heightened. Practical capacity can diminish rapidly as well. For instance, if an individual who already possesses a significant desire to commit suicide

and the means to do so lacks the necessary privacy, this practical situation can diminish their competence and reduce the likelihood of a suicide attempt.

Step 3 of the Three-Step Theory (3ST) offers valuable insights into the transition from strong suicidal thoughts to the possibility of a deadly suicide attempt, particularly when considering university students who are dealing with depression, anxiety, and suicidal ideation. Comprehending these subtle factors is crucial for tackling the intricate relationship between mental health difficulties and the likelihood of suicide consequences among college students.

## **2.3 Previous Findings**

### **2.3.1 Depression, Anxiety and Suicidal Ideation**

According to the World Health Organization (WHO), depression is projected to become the second most significant cause of mortality and incapacity by the year 2020. While the connection between depression and suicidal ideation remains a topic of debate, there is a belief that depression can contribute to the development of suicidal thoughts and active attempts at suicide (Hawton & van Heeringen, 2009). Approximately 90% of individuals who commit suicide exhibit symptoms of depression, and depression, along with other mental disorders, accounts for 47% to 74% of the overall risk of suicide in the community (Cavanagh et al., 2003).

Based on a recent study conducted by Wang et al. (2017), it has been found that depressed symptoms can accurately predict suicide thoughts in 94.2% of cases. Tarmizi and Perveen (2021) conducted a study that found a statistically significant linear relationship between depression and thoughts of suicide among college students. The research indicates a discernible correlation between depression and suicidal ideation, suggesting that when levels of despair

escalate, the likelihood of experiencing suicidal thoughts also rises. Moreover, as stated by Azorundu Abigail Agbon et al. (2023), there is a positive correlation between depression and suicidal thoughts among college students. A notable and favourable connection of 68.5% was discovered between depression and suicide ideation among undergraduate students.

Anxiety and suicidal ideation are closely related, and several studies have explored this connection. A review of recent literature found that anxiety disorders, such as Generalized Anxiety Disorder (GAD), are associated with an increased risk of suicidal ideation (Barua et al., 2022). Onyishi's (2023) research also revealed a strong association between elevated levels of professional anxiety and heightened suicidal inclinations, including a strong aversion to life, attraction towards death, and contemplation of suicide. In contrast, a reduced level of anxiety was linked to a drop in suicide intentions, marked by an enhanced inclination towards embracing life and rejecting death. Furthermore, a study conducted at A University in the Gyeongbuk Area (Chang, 2023) discovered a noteworthy connection between anxiety and suicidal thoughts among students.

### **2.3.2 Issues and Trends of Depression and Anxiety Among University Students**

As per Arifin et al. (2023), university students are persons who are currently undergoing a crucial period of transformation. During this period, individuals will undergo a transitional phase from adolescence to adulthood, which can be one of the most challenging and anxiety-inducing periods in their lives. Individuals often experience heightened levels of stress when faced with challenges in adjusting to a new environment following their departure from school and transition to university (Clinciu, 2013). Stamp et al (2015) found that stress arises among university students when they confront the reality of living distant from home and must

independently handle personal finances, establish social connections, and adapt to a new academic environment. Students must fulfil the expectations imposed upon them, which are established based on their academic achievement in examinations, assessments, effective scheduling, and the number of courses they undertake concurrently. These factors may contribute to the stress that students experience (Beiter et al., 2015). Archuleta (2013) found that university students from a low socioeconomic background who encounter financial challenges are prone to experiencing elevated levels of depression, anxiety, and stress.

The current prevalence of mental health concerns among university students is really alarming. Statistical analysis has uncovered a persistent trend of increasing mental health issues among this particular group. Based on the Health and Morbidity National Survey Statistics (2015), it was shown that 33% of individuals aged 16 years and above are now facing mental health problems. Based on a survey done by the National Health and Morbidity in 2019, the prevalence of mental health problems among adults in Malaysia has increased from 8.9% in 2012 to 10.7% in 2015, and further escalated to 31.1% in 2019 (MIASA, 2019). The results also suggest that the bulk of occurrences were documented among Malaysian students (Arifin et al., 2021). Wong et al. (2023) found that the occurrence of moderate to extremely severe depression, anxiety, and stress among university students in Shah Alam is 53.9%, 66.2%, and 44.6%, respectively. The prevalence of depression and anxiety among undergraduate students in Malaysia during the COVID-19 outbreak surpassed the rates observed in previous surveys. More precisely, the prevalence of depression was 29.4% while the prevalence of anxiety was 51.3% (Moy & Ng, 2021).

Beside that, a subsequent survey and analysis conducted on 1401 Chinese undergraduates over a span of four consecutive years revealed that around 20% to 40% of the participants experienced varying degrees of depression, anxiety, and stress. Additionally, approximately

35% of the undergraduates exhibited higher levels of depression compared to the general population (Liu et al., 2019). In a study conducted in Saudi Arabia, 642 college students were surveyed to determine the prevalence of moderate depression, anxiety, and stress. The results showed that 53.6% of the students experienced moderate depression, 65.7% experienced anxiety, and 34.3% experienced stress (Al Bahhawi et al., 2018). Furthermore, as per the Spring 2022 National College Health Assessment administered by the American College Health Association, a notable 34.60% of students received a diagnosis of an anxiety disorder, encompassing conditions such as generalised anxiety disorder, social anxiety disorder, panic disorder, or specific phobia. Furthermore, a significant proportion of students, specifically 35.10%, indicated that anxiety had a detrimental impact on their academic performance.

Moreover, a study conducted by Abd Hamid et al. (2020) uncovers a substantial discrepancy in the occurrence of depression among female and male students. Islam et al. (2018) found that depression is the predominant disorder among female students, according to their study. This discovery is consistent with the prevalent outcome of the present investigation. Arcand et al. (2020) found that there is a direct relationship between higher levels of femininity and increased symptoms of anxiety, while femininity is inversely related to symptoms of depression. Moreover, the prevalence of sadness and anxiety varies among different academic subjects and academic years in university. Anosike et al. (2022) discovered that a notable proportion of first-year pharmacy, medical, and nursing students experienced a high occurrence of depression (71.8%) and anxiety (61.7%). Subsequent examination indicated that second-year university students displayed significantly higher levels of anxiety symptoms compared to students in their first, third, and fourth years of study (Eckberg et al., 2017). Furthermore, a study conducted in Saudi Arabia found that computer science students displayed higher levels of moderate and severe depression compared to their peers in the medical area (Cheung, 2020).

In addition, a study in the field of health sciences found that students, especially those pursuing medical imaging, demonstrated a notable incidence of stress, anxiety, and depression, as seen by higher scores (Aljabri et al., 2017). Therefore, it can be deduced that the prevalence of depression and anxiety varies across different academic programmes and academic years in university, with first-year health science students and second-year students being particularly vulnerable.

### **2.3.3 Issues and Trends of Suicidal Ideation Among University Students**

Suicidal ideation is frequently an indication of mental health issues and a notable contributing factor to suicide (Pereira & Cardoso, 2015). Suicidal ideation, as defined by the Merriam-Webster Dictionary, refers to the contemplation or intense focus on the thought of ending one's own life. Sreenivas (2022) categorizes suicidal ideation into two distinct kinds. Firstly, the presence of active suicidal ideation. This refers to a state where an individual not only experiences thoughts of suicide but also possesses the deliberate desire to carry out the act. This may involve possessing strategies or a systematic approach to execute it. Furthermore, there are passive suicidal thoughts. This refers to experiencing suicidal ideation, characterized by ideas such as "I desire to fall asleep and never wake up," without any genuine purpose to inflict harm upon oneself or any concrete intentions to carry out suicide.

The mental well-being and susceptibility to suicide among college students are topics of continuous apprehension (McLaughlin & Gunnell, 2020). The transition into higher education often aligns with the typical emergence of serious mental illness (Farrell et al., 2017). This period is characterised by significant transformation. Thus, it is highly likely that college students may have suicidal tendencies (Yi et al., 2020). Suicide is a significant contributor to

death rates in this particular population (Hedman-Robertson, 2018). Based on SAMHSA's (2019) findings, 6.6% of college-enrolled individuals aged 18 to 22 reported having serious suicidal ideation, 2.2% reported making concrete suicide plans, and 1.1% reported attempting suicide during the past year.

Choi et al. (2021) found that 22.1% of university students reported having suicidal thoughts in the previous year. In addition, a small proportion of students (1.6%) said that they had experienced suicidal ideation but were able to avert it. An inequality based on gender was noted in the occurrence of suicidal thoughts, with a more significant proportion reported among female students in comparison to their male peers. More precisely, 14.9% of female students admitted to experiencing suicide ideation within the previous year, but the corresponding percentage for male students was lower at 7.2%.

The prevalence of suicidal ideation differs across various university disciplines and academic levels. Sousa et al. (2022) conducted a study which found that 26.33% of students in healthcare graduation programmes reported having suicide ideation. An independent inquiry examined the frequency of suicidal ideation among university students in the autumn semester of 2020. The study conducted by Gratz et al. (2021) found no significant differences in rates across different academic areas. Furthermore, a study conducted at a vocational college in China unveiled that the prevalence of suicidal ideation among first-year university students was 5.2% during the COVID-19 pandemic (Wu et al., 2022). According to a recent study conducted among undergraduate medical students, 23.7% of them reported suffering suicidal ideation (Asfaw et al., 2020). In addition, the study revealed that Science major students had a significantly higher prevalence of individuals with suicide ideation compared to Social Science students (Choi et al., 2021).

## **2.4 Motivation for Suicide**

Although most suicide research focuses on elements related to suicide, an alternate strategy to improve comprehension and prevention is to get deeper insights into the underlying motivations behind suicide attempts. Understanding the primary factors contributing to suicide attempts can improve the development of theoretical models for suicide and accelerate the implementation of intervention and prevention programmes that are best equipped to engage and support persons who are vulnerable. From a clinical standpoint, identifying the fundamental drive behind a patient's endeavour allows the physician and the individual to examine other approaches to tackle the issue and reduce the likelihood of repeat attempts. The motivation behind all suicide attempts is the universal desire to die. However, research suggests that individual attempts can be influenced by different factors, including the desire to escape, communicate, change one's environment, or cope with an overwhelming mental state (Chapman & Dixon-Gordon 2007; May & Klonsky 2013).

Various theories of suicide provide distinct explanations for the underlying causes behind individuals' suicide attempts. According to Edwin Shneidman's (1993) theory of suicide, psychache, which refers to intense emotional and psychological suffering, is the main driving force behind suicide attempts. He posits that suicide arises when an individual's capacity to endure psychological anguish is exceeded, and that this capacity differs among persons. Roy Baumeister proposes a suicide theory that integrates aspects from cognitive, social, and personality psychology. In his escape hypothesis, Baumeister (1990) posits that numerous suicide attempts are driven by a want to alleviate profound self-awareness that engenders distress. According to Thomas Joiner's (2005) interpersonal theory, the tendency towards suicide is influenced by the interaction of two factors: the perception of being a burden to others and the feeling of not belonging. Additional theories emphasise the substantial influence of

hopelessness (Abramson et al., 1989) and impulsivity (Simon et al., 2001) as factors that determine suicide behaviour.

## **2.5 Summary**

In conclusion, Chapter 2 illuminates university students' mental health issues, including depression, anxiety, and suicidal ideation. These issues are complex and require a comprehensive approach that encompasses human, societal, and environmental aspects, as the literature review shows. The Three-Step Theory of Suicide (3ST) and behavioral theories help explain the ideation-to-attempt process. This detailed overview prepares the subsequent chapters to develop tailored interventions to improve university students' mental health. The synthesis of literature allows for a sophisticated study of research problems and the development of methods to solve this vulnerable demographic's challenges.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter discussed the methodology that was used in this study. The scopes of discussion in this chapter included research design, population, sample and sampling, instrument, ethics, data collection procedure, data analysis procedure, and ended with a summary.

#### **3.1 Research Design**

To get a full picture of how common depression, anxiety, and suicidal thoughts were, this study used a positivist philosophy. Positivist research took the view that knowledge existed outside of what was being studied. In other words, what was being studied could only be done so objectively, and it could not include opinions or personal viewpoints. This study used a quantitative research method and survey approach. Google Form was used as a strategy to distribute quantitative surveys by sharing the questionnaire link. The cross-sectional research method was chosen because it gave a picture of mental health problems at a certain point in time. This made it an effective and practical choice for the study. A cross-sectional time horizon was used, which allowed data to be gathered at a single point in time (Thomas, 2020) and showed the current state of mental health in the chosen group. Structured surveys with proven tools like the Patient Health Questionnaire-9 (PHQ-9), the Generalized Anxiety Disorder 7 (GAD-7), and the Suicide Behaviour Questionnaire-Revised (SBQ-R) were used to collect quantitative data. These tools ensured that organized data collection on depression, anxiety, and suicidal thoughts happened, which made quantitative analysis easier.

A random sampling method was used in the sampling strategy to ensure that key demographic factors were represented, making the results more general. Descriptive statistics examined demographic data and provided a broad picture. Inferential statistics, like ordinal logistic regression, analyzed how mental health factors were related. Ethical concerns were very important, and participants had to give their informed consent, remain anonymous, and be given access to mental health support tools. This study, which was based on the Research Onion Design Model (15 Writers, 2019), aimed to simplify the complicated picture of depression, anxiety, and suicidal thoughts among university students by providing useful information about the mental health problems that different groups of students experienced.

### **3.2 Population and Sample**

As stated by Krieger (2012), the population encompassed all individuals who fell inside a well-defined category of people, events, or objects. Therefore, the population under investigation pertained to the particular cohort of individuals that the research sought to examine, as delineated by the study's goals and objectives (Oribhabor, 2019). Oftentimes, the researcher came across a target community that was excessively vast to be comprehensively investigated. When the size of the population under investigation was too vast to conduct a comprehensive census, it became crucial to select a subset from it for a more efficient study (Oribhabor, 2019). Sampling, according to Osuala (2007), referred to the process of selecting a smaller subset from a larger population or universe that effectively represented the complete population or universe. In order to ensure the effectiveness and dependability of the research, it was crucial to choose a representative and impartial sample from the population. A sample referred to a smaller group of persons or volunteers that were chosen from a wider community in order to conduct a survey (Sudman et al., 1996).

A sample was a subset of individuals picked from a larger population for the purpose of inquiry. Opting for a suitable sample size was crucial in order to minimize expenses associated with sampling error and attain optimal results. Salkind (2017) emphasized the need for determining an optimal sample size for research to provide a representative sample of the total community. A limited sample size might result in Type I error, which was the likelihood of incorrectly rejecting a valid finding that should really be accepted (Bougie & Sekaran, 2016). Bougie and Sekaran (2016) contended that employing an excessively high sample size was unsuitable since it might result in a type II error, which entailed accepting a conclusion that should actually be rejected. The projected overall student population at University Malaysia Sarawak for this research was roughly 15,400, comprising both undergraduate and postgraduate students. According to sample size calculators that used the method developed by Krejcie and Morgan (1970), the appropriate sample size for a population of 15,400 individuals was 375. The sample size for this study was 381.

### **3.3 Instruments Structure**

The instrument structure comprises five distinct components, each meticulously crafted to gather vital data related to the study's focus on mental health.

#### **3.3.1 Section A: Informed Consent**

Participants in the study titled "Depression, Anxiety, and Suicidal Ideation Among University Students: A Prevalence Study" were provided with an electronic informed consent form. By clicking the "agree" button, participants confirmed that they had read and understood the information about the study. They were given sufficient time to consider their participation and

understood that it was voluntary, allowing them to withdraw at any time without providing a reason. Participants acknowledged the risks and benefits associated with the study and were assured that their identity would remain confidential even if the findings were presented at conferences or published in journals. Additionally, participants were informed that study investigators, qualified monitors and auditors, the sponsor or its affiliates, and governmental or regulatory authorities might have access to their records to ensure the study's accuracy and proper conduct. All personal information was guaranteed to be treated as strictly confidential.

### **3.3.2 Section B: Demographic Information**

This section focuses on demographic details, providing a comprehensive overview of participants' background information. The purpose of this section is to gain a thorough understanding of the participants by considering criteria such as age, gender, year of study, and faculty.

### **3.3.3 Section C: Patient Health Questionnaire-9 (PHQ-9)**

After the demographic section, the questionnaire includes the Patient Health Questionnaire-9 (PHQ-9), a validated instrument used to evaluate the intensity of depressive symptoms (Pfizer, 1999). The collection comprises nine items that align with the nine DSM-IV criteria for depression (DSM-IV). The rating for each item is derived based on the data collected over the two weeks before to the administration. Each item is assigned a score on a scale of zero (indicating 'not at all') to three (indicating 'almost every day'). The total score has a theoretical range spanning from 0 to 27. In this study, individuals who achieved a score of 10 or above were classified as belonging to the Possible major depressive disorder (MDD) group, while

those who scored 9 or below were classified as belonging to the Non-MDD group. While the PHQ-9 is not intended for diagnostic use, research has demonstrated that a score of 10 on the PHQ-9 has an 88% sensitivity and 88% specificity in identifying Major Depressive Disorder (MDD) (Kroenke et al., 2001).

#### **3.3.4 Section D: Generalized Anxiety Disorder-7 (GAD-7)**

Generalised Anxiety Disorder 7 (GAD-7) component is used to measure the severity of anxiety symptoms reported by participants. This provides important information on the presence of both anxiety and depression (Spitzer, 1999). The self-report scale comprises seven items that are derived from DSM-IV criteria. The study has impressive internal consistency, as indicated by a dependability coefficient ( $\alpha$ ) ranging from .89 to .92 (Rodebaugh et al., 2008). The GAD-7 total score has a range of 0 to 21. In this study, those who obtained a score of 10 or more were categorised as being part of the Possible Generalised Anxiety Disorder (GAD) group, whereas students with GAD-7 levels below 10 were categorised as being part of the Non-GAD group. According to Spitzer et al. (2006), a GAD-7 scale score of 10 is the optimal threshold for accurately identifying persons who may have Generalised Anxiety Disorder (GAD). The sensitivity of this threshold is 89% and its specificity is 82%.

#### **3.3.5 Section E: Suicide Behaviours Questionnaire-Revised (SBQ-R)**

The Suicidal Behaviours Questionnaire-Revised (SBQ-R) consists of four items, each assessing a distinct aspect of suicidality. The SBQ-R questionnaire has four items that measure different aspects of suicidal thoughts and behaviours. Item 1 assesses the presence of lifetime suicide ideation and suicide attempts. Item 2 evaluates the frequency of suicidal thoughts over

the last twelve months. Item 3 measures the level of threat of engaging in suicidal behaviour. Finally, item 4 assesses the self-reported likelihood of engaging in suicidal behaviour (Osman et al., 2001). The Suicide Behaviours Questionnaire-Revised (SBQ-R) is a very sensitive and specific measure that reliably assesses suicidal attitudes, ideation, and past or prospective future suicide attempts. Among the overall adult population, it possesses a sensitivity rate of 93% and a specificity rate of 95%. Within the population of adult mental inpatients, the sensitivity of this test is 80%, meaning it accurately identifies 80% of individuals who have the condition. Additionally, the specificity of the test is 91%, indicating that it correctly identifies 91% of individuals who do not have the condition. The psychometric features of the SBQ-R demonstrate its efficacy in diverse adult populations, guaranteeing precise and reliable outcomes in the identification of persons who are at risk for suicide.

### **3.3.6 Procedures**

The data collected was based on the answers given by the respondents during the survey. The questionnaires were distributed to the respondents and answered by them. They were asked to answer various questions regarding depression, anxiety, and suicidal ideation. After that, the data obtained was analyzed using Statistical Packages for Social Sciences (SPSS). This method was suitable as it was easy to do, did not cost a lot of money and time, and the data could be collected easily.

### 3.4 Data Analysis Procedures

#### 3.4.1 Descriptive Data Analysis

Demographic questions, such as gender, age, year of study, and faculty, were analyzed using descriptive statistics. Typically, this data was displayed as summary statistics, graphs, and tables. Moreover, descriptive analysis was employed to ascertain the frequency and intensity of depression, anxiety, and suicidal thoughts among college students, taking into account variables such as gender, academic year, and field of study.

#### 3.4.2 Inferential Data Analysis

Multiple Regression was used to determine the relationship between depression, anxiety and suicidal ideation among university students. It is used when we want to predict the value of a variable based on the value of two or more other variables (Laerd Statistics, 2018).

**Table 3.4.2:** *Summary of Technique Analyses*

| Objectives                                                                                                    | Hypotheses                                                                                     | Analyses             |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------|
| 1. To determine the level or severity of depression, anxiety and suicidal ideation among university students. | 1. The levels of depression, anxiety and suicidal ideation are high among university students. | Descriptive Analysis |
| 2. To determine the prevalence of depression, anxiety and suicidal ideation                                   | 2. Female students, third-year students and Faculty of                                         | Descriptive Analysis |

|                                                                                                               |                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| between gender, year of study and faculty among university students.                                          | Medicine and Health Sciences students are more prone to depression, anxiety and suicidal ideation compared to others. |
| 3. To determine the relationship between depression, anxiety and suicidal ideation among university students. | 3. There is a Multiple Regression significant relationship between depression, anxiety and suicidal ideation.         |

### 3.5 Summary

Conclusively, this study employed a cross-sectional survey research design, employing a quantitative methodology to examine the prevalence and association between depression, anxiety, and suicidal ideation among university students. The study was conducted on a population of around 15,400 students from University Malaysia Sarawak. A sample size of 375 was deemed suitable for the investigation. The data collection process involved the utilisation of a standardised questionnaire comprising four sections: Demographic, Patient Health Questionnaire-9 (PHQ-9), Generalised Anxiety Disorder 7 (GAD-7), and Suicide Behaviour Questionnaire-Revised (SBQ-R). The methodology encompassed the dissemination of questionnaires to the participants, followed by the analysis of the gathered data utilising

Statistical Packages for Social Sciences (SPSS). The study followed rigorous ethical guidelines to safeguard participant privacy, maintain anonymity, and uphold confidentiality. Demographic information and the incidence of mental health concerns among students were analysed using descriptive data analysis. The study employed inferential data analysis, namely multiple regression, to examine the associations between depression, anxiety, and suicidal thoughts. This research methodology and analytical approach offer a thorough investigation into mental health concerns among college students, yielding significant contributions to the area.

## CHAPTER FOUR

### FINDINGS AND DISCUSSION

#### 4.0 Introduction

This chapter centers on the presentation and discussion of the study's findings. It begins by detailing the demographic characteristics of the participants, including gender, race, age, faculty, year of study, and CGPA. Following this, the chapter provides an inferential data analysis, accompanied by a comprehensive discussion of the results.

#### 4.1 Demographic Data

In this study, descriptive statistics were used to describe the demographic profile of respondents. The quantitative data were presented in tables and bar charts. Additionally, the frequency distributions of respondents' demographics, such as gender, age, race, year of study, and faculty, were examined and displayed in tables and bar charts.

**Table 4.1:** *Demographic Table*

| Characteristic |                    | Frequency | Percentage % |
|----------------|--------------------|-----------|--------------|
| Gender         | Female             | 277       | 72.7         |
|                | Male               | 104       | 27.3         |
| Race           | Bugis              | 2         | 0.5          |
|                | Bumiputera Sabah   | 55        | 14.4         |
|                | Bumiputera Sarawak | 161       | 42.3         |
|                | Cina               | 40        | 10.5         |
|                | India              | 12        | 3.1          |
|                | Malay              | 111       | 29.1         |
| Age            | 19-22              | 281       | 73.8         |

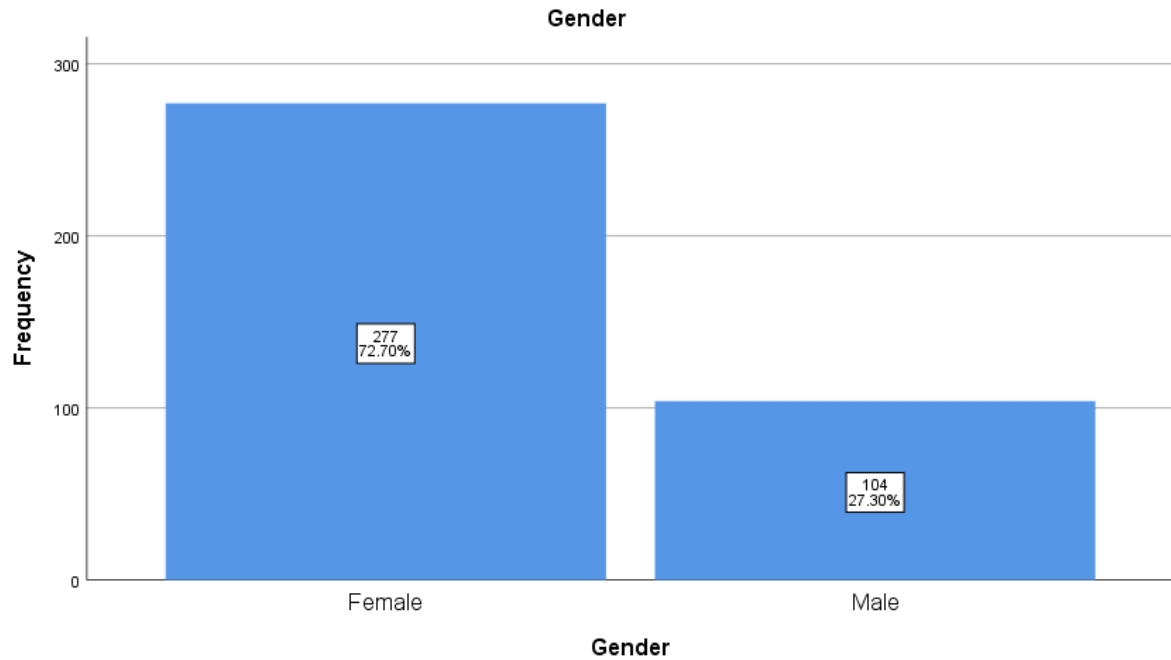
|               |                                                        |     |      |
|---------------|--------------------------------------------------------|-----|------|
|               | 23-26                                                  | 97  | 25.5 |
|               | 27-30                                                  | 2   | 0.5  |
|               | 31 years old and above                                 | 1   | 0.3  |
| Faculty       | Faculty of Applied and Creative Arts                   | 32  | 8.4  |
|               | Faculty of Built Environment                           | 31  | 8.1  |
|               | Faculty of Cognitive Science and Human Development     | 61  | 16.0 |
|               | Faculty of Computer Science and Information Technology | 24  | 6.3  |
|               | Faculty of Economics and Business                      | 51  | 13.4 |
|               | Faculty of Education, Language and Communication       | 45  | 11.8 |
|               | Faculty of Engineering                                 | 31  | 8.1  |
|               | Faculty of Medicine and Health Sciences                | 32  | 8.4  |
|               | Faculty of Resource Science and Technology             | 23  | 6.0  |
|               | Faculty of Social Sciences and Humanities              | 51  | 13.4 |
| Year of Study | Year 1                                                 | 138 | 36.2 |
|               | Year 2                                                 | 116 | 30.4 |
|               | Year 3                                                 | 98  | 25.7 |
|               | Year 4                                                 | 26  | 6.8  |
|               | Year 5                                                 | 3   | 0.8  |
| CGPA          | 2.49 and below                                         | 15  | 3.9  |
|               | 2.50 – 2.99                                            | 69  | 18.1 |
|               | 3.00 – 3.49                                            | 183 | 48.0 |

#### 4.1.1 Gender of Participants

**Table 4.1.1:** *Frequency and Percentage of Participants' Gender*

| <b>Gender</b> | <b><i>n</i></b> | <b>%</b>   |
|---------------|-----------------|------------|
| Female        | 277             | 72.70      |
| Male          | 104             | 27.30      |
| <b>Total</b>  | <b>381</b>      | <b>100</b> |

**Figure 4.1.1:** *Frequency and Percentage of Participants' Gender*



Footnote

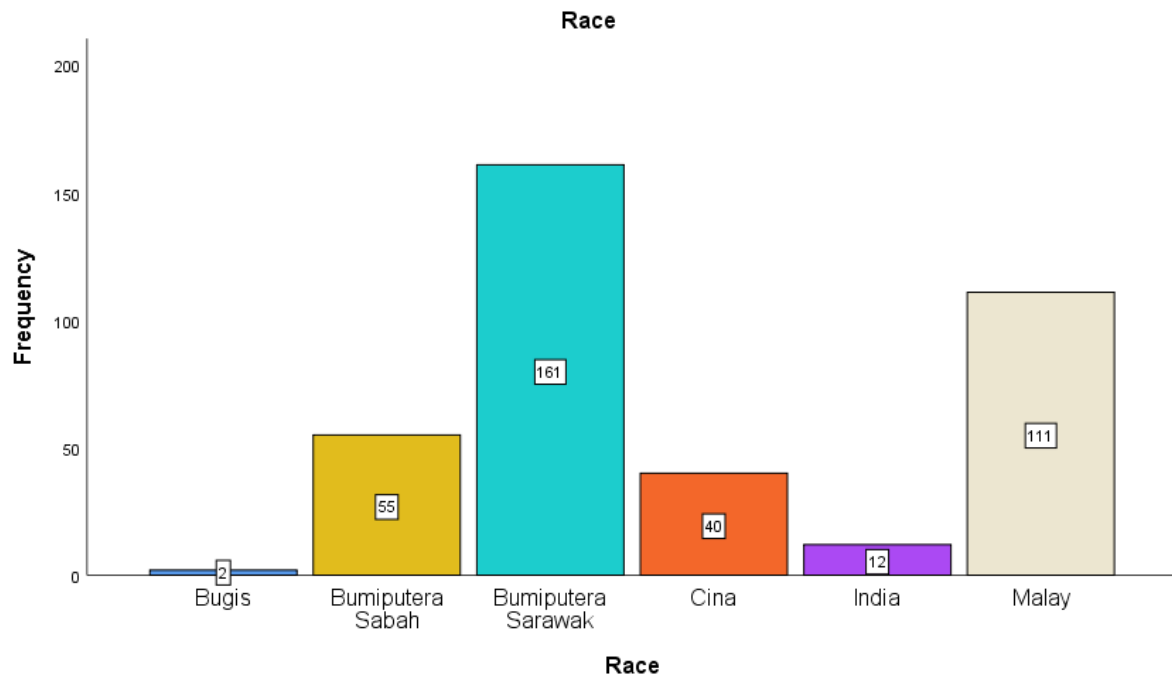
Table 4.1.1 and Figure 4.1.1 indicated the frequency and percentage of participants. A total of 381 respondents participated in this study, with 104 male respondents (27.30%) and 277 female respondents (72.70%). This indicates that the majority of respondents were female.

#### 4.1.2 Race of Participants

**Table 4.1.2:** *Frequency and Percentage of Participants' Race*

| <b>Race</b>        | <b><i>n</i></b> | <b>%</b>   |
|--------------------|-----------------|------------|
| Bumiputera Sarawak | 161             | 42.3       |
| Bumiputera Sabah   | 55              | 14.4       |
| Malay              | 111             | 29.1       |
| India              | 12              | 3.1        |
| Cina               | 40              | 10.5       |
| Bugis              | 2               | 0.5        |
| <b>Total</b>       | <b>381</b>      | <b>100</b> |

**Figure 4.1.2:** *Frequency and Percentage of Participants' Race*



Based on Figure 4.1.2, the majority of respondents were from the Bumiputera Sarawak ethnic group, with 161 respondents (42.3%). The second largest group was Malay, with 111 respondents (29.1%). This was followed by Bumiputera Sabah with 55 respondents (14.4%), Chinese with 40 respondents (10.5%), Indian with 12 respondents (3.1%), and Bugis with 2 respondents (0.5%). These findings indicate that Bumiputera Sarawak is the predominant ethnic group among the respondents in this study.

#### **4.1.3 Age of Participants**

**Table 4.1.3:** *Frequency and Percentage of Participants' Age*

| Age   | <i>n</i> | %     |
|-------|----------|-------|
| 19-22 | 281      | 73.75 |

|                        |            |            |
|------------------------|------------|------------|
| 23-26                  | 97         | 25.46      |
| 27-30                  | 2          | 0.52       |
| 31 years old and above | 1          | 0.26       |
| <b>Total</b>           | <b>381</b> | <b>100</b> |

**Figure 4.1.3:** *Frequency and Percentage of Participants' Age*

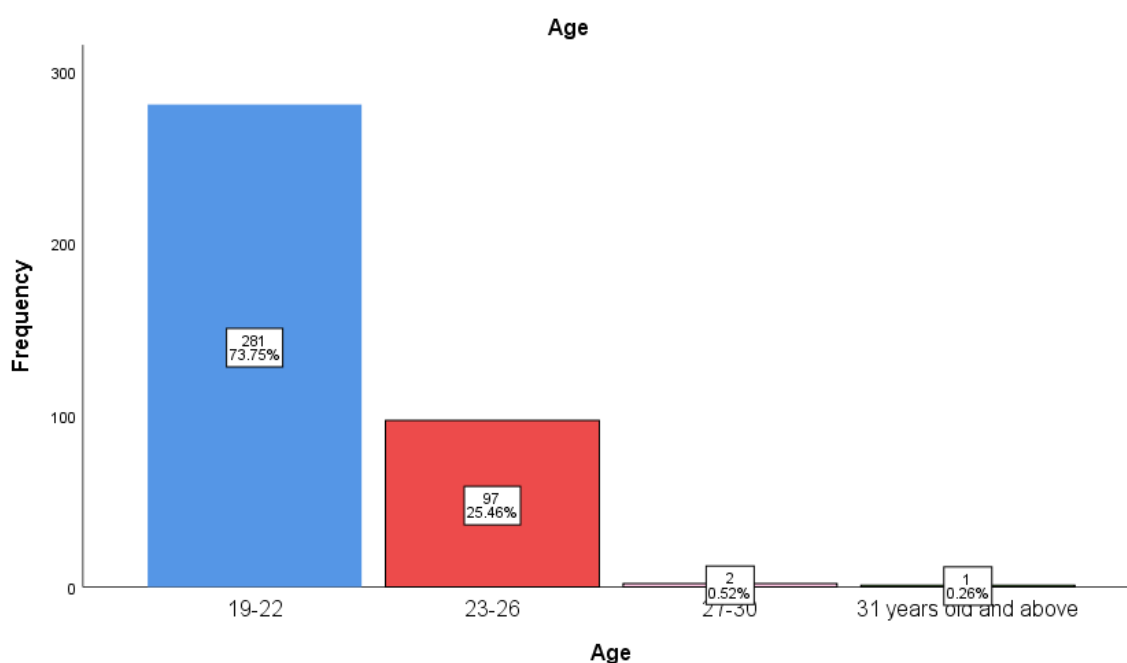


Figure 4.1.3 shows the age distribution of respondents in this study. The majority of respondents were between 19 and 22 years old, comprising 281 respondents (73.75%). This was followed by 97 respondents (25.46%) aged 23 to 26 years, 2 respondents (0.52%) aged 27 to 30 years, and 1 respondent (0.26%) aged 31 years and above.

#### 4.1.4 Faculty of Participants

**Table 4.1.4:** *Frequency and Percentage of Participants' Faculty*

| Faculty                                                      | <i>n</i> | %     |
|--------------------------------------------------------------|----------|-------|
| Faculty of Applied and<br>Creative Arts                      | 32       | 8.40  |
| Faculty of Built<br>Environment                              | 31       | 8.14  |
| Faculty of Cognitive<br>Science and Human<br>Development     | 61       | 16.01 |
| Faculty of Computer<br>Science and Information<br>Technology | 24       | 6.30  |
| Faculty of Economics and<br>Business                         | 51       | 13.39 |
| Faculty of Education,<br>Language and<br>Communication       | 45       | 11.81 |
| Faculty of Engineering                                       | 31       | 8.14  |
| Faculty of Medicine and<br>Health Sciences                   | 32       | 8.40  |
| Faculty of Resource Science<br>and Technology                | 23       | 6.04  |
|                                                              | 51       | 13.39 |

|                                              |            |            |
|----------------------------------------------|------------|------------|
| Faculty of Social Sciences<br>and Humanities |            |            |
| <b>Total</b>                                 | <b>381</b> | <b>100</b> |

**Figure 4.1.4:** *Frequency and Percentage of Participants' Faculty*

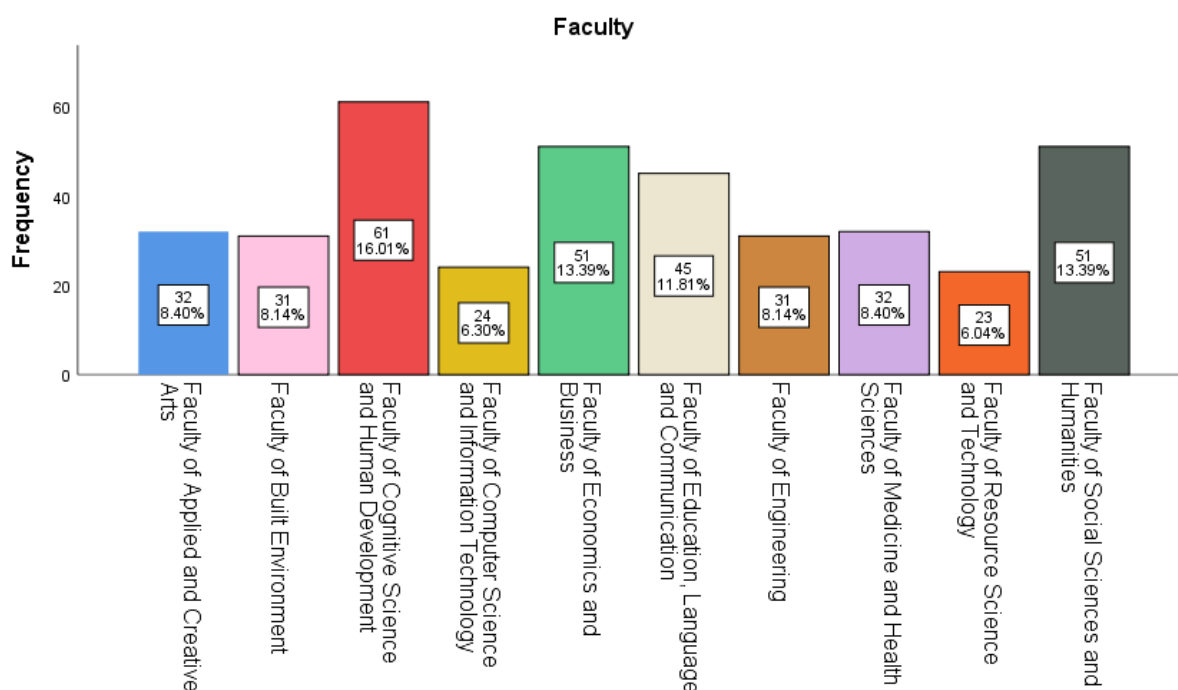


Figure 4.1.4 shows the faculty distribution of respondents in this study. The Faculty of Cognitive Science and Human Development had the most participants, with 61 people (16.01%). Two other faculties, Economics and Business, and Social Sciences and Humanities, each had 51 respondents (13.39%). Education, Language, and Communication had 45 participants (11.81%). Medicine and Health Sciences, and Applied and Creative Arts both had 32 respondents (8.40%). Built Environment and Engineering each had 31 participants (8.14%).

Computer Science and Information Technology had 24 respondents (6.30%), while Resource Science and Technology had 23 (6.04%).

#### 4.1.5 Year of Study of Participants

**Table 4.1.5:** *Frequency and Percentage of Participants' Year of Study*

| <b>Year of Study</b> | <b><i>n</i></b> | <b>%</b>   |
|----------------------|-----------------|------------|
| Year 1               | 138             | 36.22      |
| Year 2               | 116             | 30.45      |
| Year 3               | 98              | 25.72      |
| Year 4               | 26              | 6.82       |
| Year 5               | 3               | 0.79       |
| <b>Total</b>         | <b>381</b>      | <b>100</b> |

**Figure 4.1.5:** *Frequency and Percentage of Participants' Year of Study*

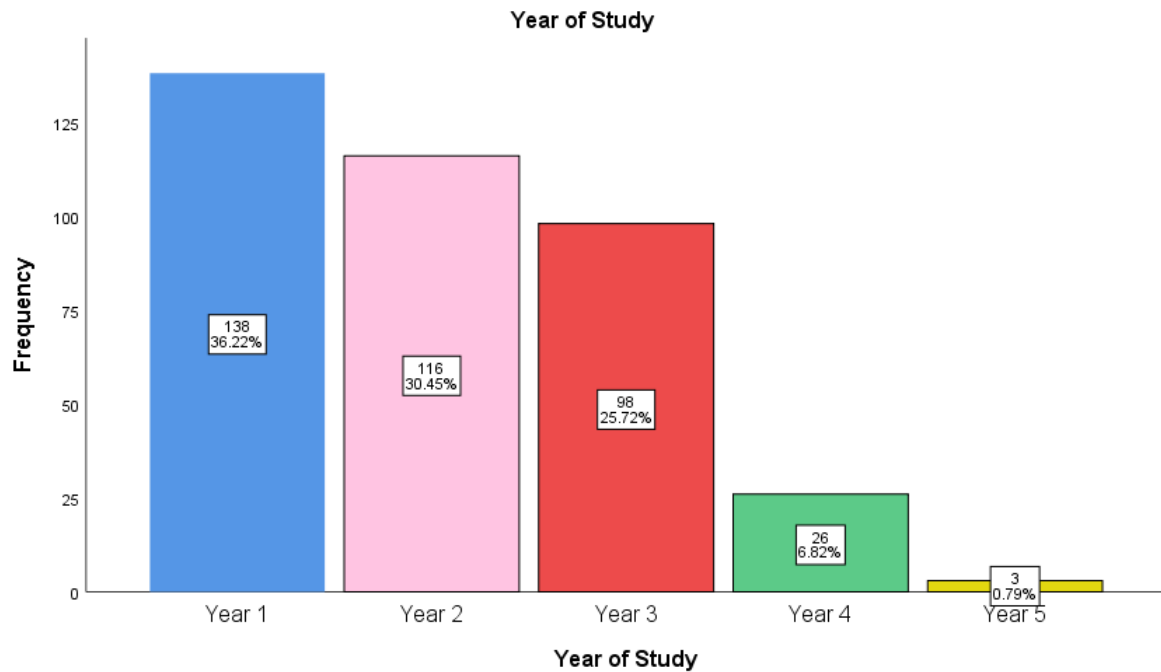


Figure 4.1.5 shows the year of study distribution of respondents in this study. The majority, 136 respondents, were first-year students (36.22%), followed by 116 second-year students (30.45%). Additionally, there were 98 third-year students (25.72%), 26 fourth-year students (6.82%), and finally, only 3 respondents from the fifth year (0.79%).

#### 4.1.6 CGPA of Participants

**Table 4.1.6:** *Frequency and Percentage of Participants' CGPA*

| CGPA           | <i>n</i> | %     |
|----------------|----------|-------|
| 2.49 and below | 15       | 3.94  |
| 2.50 – 2.99    | 69       | 18.11 |
| 3.00 – 3.49    | 183      | 48.03 |

|              |            |            |
|--------------|------------|------------|
| 3.50 – 4.00  | 114        | 29.92      |
| <b>Total</b> | <b>381</b> | <b>100</b> |

**Figure 4.1.6:** *Frequency and Percentage of Participants' CGPA*

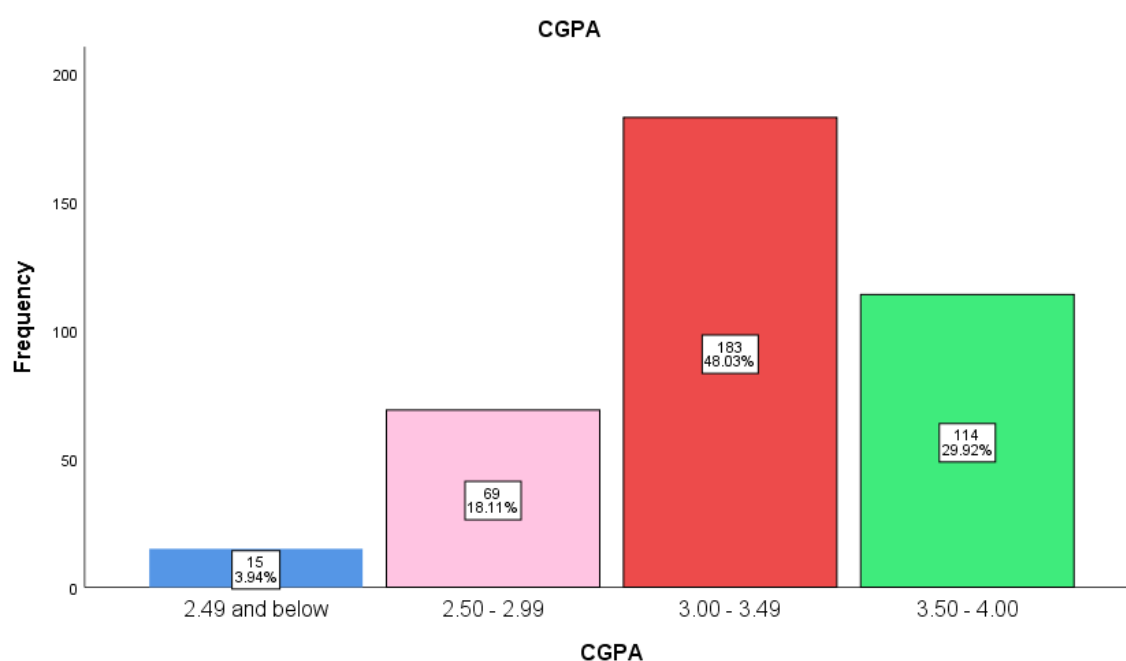


Figure 4.1.6 shows the CGPA distribution of respondents in this study. The majority of respondents, 183 individuals (48.03%), attained a CGPA between 3.00 and 3.49. Following this, 114 respondents achieved a CGPA between 3.50 and 4.00 (29.92%), while 69 respondents obtained a CGPA between 2.50 and 2.99 (18.11%). Finally, the lowest number of respondents, 15 individuals (3.94%), had a CGPA of 2.49 and below.

## 4.2 Descriptive Data

In this report, the study present the findings of a descriptive analysis conducted to assess the level or severity of depression, anxiety, and suicidal ideation among university students. The

study utilized three main assessment tools: the Patient Health Questionnaire (PHQ-9) for depression, the Generalized Anxiety Disorder 7-item (GAD-7) scale for anxiety, and the Suicidal Behaviors Questionnaire-Revised (SBQR) for suicidal ideation. Additionally, the prevalence of these mental health issues was examined across different demographic variables, including gender, year of study, and faculty.

#### 4.2.1 The Level or Severity of Depression

**Table 4.2.1:** *The Level or Severity of Depression*

| <b>Level of Depression</b> | <b><i>n</i></b> | <b>%</b>   |
|----------------------------|-----------------|------------|
| Minimal                    | 39              | 10.24      |
| Mild                       | 94              | 24.67      |
| Moderate                   | 102             | 26.77      |
| Moderately Severe          | 84              | 22.05      |
| Severe                     | 62              | 16.27      |
| <b>Total</b>               | <b>381</b>      | <b>100</b> |

This report analyzes the distribution of depression severity among a sample population based on their PHQ-9 scores, categorized into five distinct levels: minimal, mild, moderate, moderately severe, and severe depression. The data reveals a diverse distribution of depression severity. Minimal depression, characterized by minimal or no depressive symptoms, was observed in 39 individuals, accounting for 10.24% of the sample. Mild depression, which includes individuals experiencing mild symptoms potentially requiring some intervention, was noted in 94 individuals, making up 24.67% of the sample. The most prevalent category was

moderate depression, observed in 102 individuals, or 26.77% of the sample, indicating a significant portion of the population likely in need of psychological support. Moderately severe depression, affecting 84 individuals or 22.05%, suggests the presence of significant depressive symptoms that may require more intensive therapeutic approaches. Finally, severe depression, observed in 62 individuals or 16.27% of the sample.

#### 4.2.2 The Level or Severity of Anxiety

**Table 4.2.2:** *The Level or Severity of Anxiety*

| <b>Severity of Anxiety</b> | <b><i>n</i></b> | <b>%</b>   |
|----------------------------|-----------------|------------|
| No Anxiety                 | 68              | 17.85      |
| Mild                       | 128             | 33.60      |
| Moderate                   | 105             | 27.56      |
| Severe                     | 80              | 21.00      |
| <b>Total</b>               | <b>381</b>      | <b>100</b> |

This report aims to analyze the distribution of anxiety levels within a sample population using the GAD-7 scale, which categorizes individuals into four distinct groups: no anxiety, mild anxiety, moderate anxiety, and severe anxiety. The analysis reveals a varied distribution of anxiety severity among the sample population. A total of 68 individuals, representing 17.85% of the sample, fall into the no anxiety category, indicating the absence of significant anxiety symptoms. Mild anxiety is the most prevalent category, with 128 individuals, or 33.60% of the sample, experiencing mild symptoms. While these symptoms may not significantly impair daily functioning, they suggest a need for monitoring and early intervention. Moderate anxiety affects 105 individuals, accounting for 27.56% of the sample. These individuals exhibit

symptoms likely to impact daily activities, necessitating psychological interventions. Severe anxiety is observed in 80 individuals, making up 21.00% of the sample.

#### 4.2.3 The Level or Severity of Suicidal Ideation

**Table 4.2.3:** *The Level or Severity of Suicidal Ideation*

| Severity of Suicidal<br>Ideation | <i>n</i>   | %          |
|----------------------------------|------------|------------|
| Low Risk                         | 199        | 52.23      |
| High Risk                        | 182        | 47.77      |
| <b>Total</b>                     | <b>381</b> | <b>100</b> |

The analysis of the sample population reveals a near-equal distribution between the two risk categories. A total of 199 individuals, accounting for 52.23% of the sample, are classified as having a low risk of suicide. These individuals exhibit minimal or no suicidal ideation, suggesting that they are not currently at significant risk. Conversely, 182 individuals, representing 47.77% of the sample, are identified as having a high risk of suicide.

#### 4.2.4 The Prevalence of Depression Between Genders

**Table 4.2.4:** *The Prevalence of Depression Between Genders*

|            |                              | Gender |              |       |              |
|------------|------------------------------|--------|--------------|-------|--------------|
|            |                              | Female |              | Male  |              |
|            |                              | Count  | Percentage % | Count | Percentage % |
| Depression | Minimal depression           | 21     | 7.6%         | 18    | 17.3%        |
|            | Mild depression              | 67     | 24.2%        | 27    | 26.0%        |
|            | Moderate depression          | 73     | 26.4%        | 29    | 27.9%        |
|            | Moderately severe depression | 65     | 23.5%        | 19    | 18.3%        |
|            | Severe depression            | 51     | 18.4%        | 11    | 10.6%        |

The analysis indicates significant differences in the severity of depression between male and female students. Among female students, the distribution shows that 7.6% experienced minimal depression, 24.2% had mild depression, and 26.4% were classified as having moderate depression. Additionally, 23.5% of female students reported moderately severe depression, and 18.4% were found to have severe depression. In contrast, the male student population exhibited a different distribution pattern. A higher percentage of male students, 17.3%, reported minimal depression compared to their female counterparts. Mild depression was observed in 26.0% of male students, closely aligning with the percentage of female students in this category. Moderate depression was reported by 27.9% of male students, slightly higher than the 26.4% observed in female students. Furthermore, 18.3% of male students experienced moderately severe depression, which is lower than the 23.5% reported by female students. Severe depression affected 10.6% of male students, a notably lower percentage compared to the 18.4% of female students who fell into this category.

#### 4.2.5 The Prevalence of Depression Between Year of Study

**Table 4.2.5:** *The Prevalence of Depression Between Year of Study*

|               |        | Depression         |              |                 |              |                     |              |                              |              |                   |              |
|---------------|--------|--------------------|--------------|-----------------|--------------|---------------------|--------------|------------------------------|--------------|-------------------|--------------|
|               |        | Minimal depression |              | Mild depression |              | Moderate depression |              | Moderately severe depression |              | Severe depression |              |
|               |        | Count              | Percentage % | Count           | Percentage % | Count               | Percentage % | Count                        | Percentage % | Count             | Percentage % |
| Year of Study | Year 1 | 17                 | 12.3%        | 39              | 28.3%        | 37                  | 26.8%        | 31                           | 22.5%        | 14                | 10.1%        |
|               | Year 2 | 11                 | 9.5%         | 25              | 21.6%        | 30                  | 25.9%        | 30                           | 25.9%        | 20                | 17.2%        |
|               | Year 3 | 9                  | 9.2%         | 23              | 23.5%        | 29                  | 29.6%        | 17                           | 17.3%        | 20                | 20.4%        |
|               | Year 4 | 2                  | 7.7%         | 5               | 19.2%        | 6                   | 23.1%        | 5                            | 19.2%        | 8                 | 30.8%        |
|               | Year 5 | 0                  | 0.0%         | 2               | 66.7%        | 0                   | 0.0%         | 1                            | 33.3%        | 0                 | 0.0%         |

The analysis revealed varying levels of depression severity among students in different years of study. For first-year students, the distribution showed that 12.3% experienced minimal depression, 28.3% mild depression, and 26.8% moderate depression. A significant portion, 24.2%, reported moderately severe depression, and 10.1% were classified as having severe

depression. Second-year students exhibited a slightly different pattern, with 9.5% experiencing minimal depression and 21.6% mild depression. The proportion of students with moderate depression was 25.8%, while 25.8% also fell into the moderately severe category. Severe depression affected 17.2% of second-year students.

Third-year students had a lower percentage of minimal depression at 9.2%, and 23.5% experienced mild depression. Moderate depression was reported by 29.6% of these students, while 17.3% had moderately severe depression. Severe depression was present in 20.4% of third-year students, indicating a relatively high level of severe depression in this cohort. Fourth-year students showed a notable distribution with 7.7% experiencing minimal depression and 15.4% mild depression. The majority, 23.1%, fell into the moderate depression category, while 19.2% experienced moderately severe depression. A significant 30.8% of fourth-year students reported severe depression, the highest among all years. Fifth-year students presented a unique case with only two students in this group. Of these, 66.7% experienced mild depression, while 33.3% fell into the moderately severe category. Notably, there were no cases of minimal, moderate, or severe depression reported among fifth-year students.

#### 4.2.6 The Prevalence of Depression Between Faculty

**Table 4.2.6:** *The Prevalence of Depression Between Faculty*

|                                                        |  | Depression         |              |                 |              |                     |              |                              |              |                   |              |
|--------------------------------------------------------|--|--------------------|--------------|-----------------|--------------|---------------------|--------------|------------------------------|--------------|-------------------|--------------|
|                                                        |  | Minimal depression |              | Mild depression |              | Moderate depression |              | Moderately severe depression |              | Severe depression |              |
| Faculty                                                |  | Count              | Percentage % | Count           | Percentage % | Count               | Percentage % | Count                        | Percentage % | Count             | Percentage % |
| Faculty of Applied and Creative Arts                   |  | 1                  | 3.1%         | 7               | 21.9%        | 9                   | 28.1%        | 8                            | 25.0%        | 7                 | 21.9%        |
| Faculty of Built Environment                           |  | 5                  | 16.1%        | 10              | 32.3%        | 6                   | 19.4%        | 6                            | 19.4%        | 4                 | 12.9%        |
| Faculty of Cognitive Science and Human Development     |  | 11                 | 18.0%        | 16              | 26.2%        | 17                  | 27.9%        | 11                           | 18.0%        | 6                 | 9.8%         |
| Faculty of Computer Science and Information Technology |  | 1                  | 4.2%         | 1               | 4.2%         | 13                  | 54.2%        | 4                            | 16.7%        | 5                 | 20.8%        |
| Faculty of Economics and Business                      |  | 4                  | 7.8%         | 14              | 27.5%        | 14                  | 27.5%        | 11                           | 21.6%        | 8                 | 15.7%        |
| Faculty of Education, Language and Communication       |  | 5                  | 11.1%        | 10              | 22.2%        | 13                  | 28.9%        | 11                           | 24.4%        | 6                 | 13.3%        |
| Faculty of Engineering                                 |  | 1                  | 3.2%         | 9               | 29.0%        | 5                   | 16.1%        | 6                            | 19.4%        | 10                | 32.3%        |
| Faculty of Medicine and Health Sciences                |  | 5                  | 15.6%        | 5               | 15.6%        | 8                   | 25.0%        | 9                            | 28.1%        | 5                 | 15.6%        |
| Faculty of Resource Science and Technology             |  | 0                  | 0.0%         | 7               | 30.4%        | 3                   | 13.0%        | 9                            | 39.1%        | 4                 | 17.4%        |
| Faculty of Social Sciences and Humanities              |  | 6                  | 11.8%        | 15              | 29.4%        | 14                  | 27.5%        | 9                            | 17.6%        | 7                 | 13.7%        |

The analysis of depression levels among university students across various faculties revealed distinct patterns. The Faculty of Applied and Creative Arts had the lowest representation with 3.1% of students experiencing minimal depression. Notably, a significant portion (21.9%) of students from this faculty reported severe depression. Students from the Faculty of Built Environment displayed a diverse range of depression levels, with 16.1% experiencing minimal depression, 32.3% mild, 19.4% moderate, 19.4% moderately severe, and 12.9% severe depression. The Faculty of Cognitive Science and Human Development showed a relatively balanced distribution, with the majority (27.9%) falling under moderate depression. This faculty had 18.0% of students with minimal depression and another 18.0% experiencing severe depression.

The Faculty of Computer Science and Information Technology had the highest percentage (54.2%) of students experiencing moderate depression, while 20.8% reported severe depression, indicating a significant concern in this faculty. The Faculty of Economics and Business saw 27.5% of students experiencing mild depression and another 27.5% with moderate depression. Severe depression was reported by 15.7% of students, which is a notable

figure for this faculty. In the Faculty of Education, Language and Communication, 28.6% of students experienced moderate depression, followed by 24.4% with moderately severe depression. Severe depression was observed in 13.3% of students.

Students from the Faculty of Engineering had a notable percentage (16.1%) reporting minimal depression, with a larger proportion (25.8%) experiencing moderate depression. Severe depression affected 16.1% of students in this faculty. The Faculty of Medicine and Health Sciences exhibited a diverse range of depression levels, with 25.0% experiencing moderate depression and 15.6% reporting severe depression. In the Faculty of Resource Science and Technology, 27.5% of students reported moderate depression, and 15.7% experienced severe depression, indicating a relatively balanced distribution of depression severity. Finally, the Faculty of Social Sciences and Humanities had 27.5% of students reporting moderate depression and 17.6% experiencing severe depression, with minimal depression affecting 11.8% of students.

#### 4.2.7 The Prevalence of Anxiety Between Genders

**Table 4.2.7:** *The Prevalence of Anxiety Between Genders*

|         |                  | Gender |              |       |              |
|---------|------------------|--------|--------------|-------|--------------|
|         |                  | Female |              | Male  |              |
|         |                  | Count  | Percentage % | Count | Percentage % |
| Anxiety | No anxiety       | 43     | 15.5%        | 25    | 24.0%        |
|         | Mild anxiety     | 89     | 32.1%        | 39    | 37.5%        |
|         | Moderate anxiety | 79     | 28.5%        | 26    | 25.0%        |
|         | Severe anxiety   | 66     | 23.8%        | 14    | 13.5%        |

The data reveals notable differences in the prevalence of anxiety between females and males. Among females, 15.5% (n=43) reported no anxiety, compared to 24.0% (n=25) of males. Mild anxiety was reported by 32.1% (n=89) of females and 37.5% (n=39) of males. Moderate

anxiety affected 28.5% (n=79) of females, while 25.0% (n=26) of males experienced similar levels. Severe anxiety was more prevalent among females, with 23.8% (n=66) compared to 13.5% (n=14) of males.

#### 4.2.8 The Prevalence of Anxiety Between Year of Study

**Table 4.2.8:** *The Prevalence of Anxiety Between Year of Study*

|               |        | Anxiety    |              |              |              |                  |              |                |              |
|---------------|--------|------------|--------------|--------------|--------------|------------------|--------------|----------------|--------------|
|               |        | No anxiety |              | Mild anxiety |              | Moderate anxiety |              | Severe anxiety |              |
|               |        | Count      | Percentage % | Count        | Percentage % | Count            | Percentage % | Count          | Percentage % |
| Year of Study | Year 1 | 30         | 21.7%        | 45           | 32.6%        | 36               | 26.1%        | 27             | 19.6%        |
|               | Year 2 | 18         | 15.5%        | 40           | 34.5%        | 31               | 26.7%        | 27             | 23.3%        |
|               | Year 3 | 13         | 13.3%        | 35           | 35.7%        | 31               | 31.6%        | 19             | 19.4%        |
|               | Year 4 | 5          | 19.2%        | 8            | 30.8%        | 7                | 26.9%        | 6              | 23.1%        |
|               | Year 5 | 2          | 66.7%        | 0            | 0.0%         | 0                | 0.0%         | 1              | 33.3%        |

The data reveals distinct variations in anxiety levels across different years of study. In the first year, 21.7% (n=30) of students reported no anxiety, 32.6% (n=45) experienced mild anxiety, 26.1% (n=36) had moderate anxiety, and 19.6% (n=27) suffered from severe anxiety. During the second year, the prevalence of no anxiety decreased to 15.5% (n=18), while mild anxiety increased to 34.5% (n=40), moderate anxiety remained relatively stable at 26.7% (n=31), and severe anxiety rose to 23.3% (n=27).

In the third year, the proportion of students with no anxiety further dropped to 13.3% (n=13), mild anxiety was reported by 35.7% (n=35), moderate anxiety by 31.6% (n=31), and severe anxiety by 19.4% (n=19). The fourth year showed a slight increase in students with no anxiety at 19.2% (n=5), a notable decrease in mild anxiety at 30.8% (n=8), and moderate anxiety at 26.9% (n=7). Severe anxiety remained significant at 23.1% (n=6). The fifth year presented a unique trend with a substantial increase in students reporting no anxiety at 66.7% (n=2), and no cases of mild or moderate anxiety. However, severe anxiety was reported by 33.3% (n=1).

#### 4.2.9 The Prevalence of Anxiety Between Faculty

**Table 4.2.9: The Prevalence of Anxiety Between Faculty**

| Faculty                                                |  | Anxiety    |              |              |              |                  |              |                |              |
|--------------------------------------------------------|--|------------|--------------|--------------|--------------|------------------|--------------|----------------|--------------|
|                                                        |  | No anxiety |              | Mild anxiety |              | Moderate anxiety |              | Severe anxiety |              |
|                                                        |  | Count      | Percentage % | Count        | Percentage % | Count            | Percentage % | Count          | Percentage % |
| Faculty of Applied and Creative Arts                   |  | 5          | 15.6%        | 9            | 28.1%        | 8                | 25.0%        | 10             | 31.3%        |
| Faculty of Built Environment                           |  | 8          | 25.8%        | 8            | 25.8%        | 10               | 32.3%        | 5              | 16.1%        |
| Faculty of Cognitive Science and Human Development     |  | 15         | 24.6%        | 23           | 37.7%        | 17               | 27.9%        | 6              | 9.8%         |
| Faculty of Computer Science and Information Technology |  | 0          | 0.0%         | 11           | 45.8%        | 10               | 41.7%        | 3              | 12.5%        |
| Faculty of Economics and Business                      |  | 6          | 11.8%        | 16           | 31.4%        | 15               | 29.4%        | 14             | 27.5%        |
| Faculty of Education, Language and Communication       |  | 6          | 13.3%        | 20           | 44.4%        | 7                | 15.6%        | 12             | 26.7%        |
| Faculty of Engineering                                 |  | 6          | 19.4%        | 7            | 22.6%        | 10               | 32.3%        | 8              | 25.8%        |
| Faculty of Medicine and Health Sciences                |  | 7          | 21.9%        | 10           | 31.3%        | 11               | 34.4%        | 4              | 12.5%        |
| Faculty of Resource Science and Technology             |  | 2          | 8.7%         | 10           | 43.5%        | 7                | 30.4%        | 4              | 17.4%        |
| Faculty of Social Sciences and Humanities              |  | 13         | 25.5%        | 14           | 27.5%        | 10               | 19.6%        | 14             | 27.5%        |

The data presents diverse patterns of anxiety prevalence among different faculties. In the Faculty of Applied and Creative Arts, 15.6% (n=5) of students reported no anxiety, 28.1% (n=9) experienced mild anxiety, 25.0% (n=8) had moderate anxiety, and 31.3% (n=10) suffered from severe anxiety. The Faculty of Built Environment showed 25.8% (n=8) with no anxiety, 25.8% (n=8) with mild anxiety, 32.3% (n=10) with moderate anxiety, and 16.1% (n=5) with severe anxiety. In the Faculty of Cognitive Science and Human Development, 24.6% (n=15) reported no anxiety, 37.7% (n=23) had mild anxiety, 27.9% (n=17) had moderate anxiety, and 9.8% (n=6) had severe anxiety. The Faculty of Computer Science and Information Technology showed no students with no anxiety, 45.8% (n=11) with mild anxiety, 41.7% (n=10) with moderate anxiety, and 12.5% (n=3) with severe anxiety.

The Faculty of Economics and Business had 11.8% (n=6) with no anxiety, 31.4% (n=16) with mild anxiety, 29.4% (n=15) with moderate anxiety, and 27.5% (n=14) with severe anxiety. The Faculty of Education, Language, and Communication reported 13.3% (n=6) with no anxiety,

44.4% (n=20) with mild anxiety, 15.6% (n=7) with moderate anxiety, and 26.7% (n=12) with severe anxiety. In the Faculty of Engineering, 19.4% (n=6) had no anxiety, 22.6% (n=7) had mild anxiety, 32.3% (n=10) had moderate anxiety, and 25.8% (n=8) had severe anxiety. The Faculty of Medicine and Health Sciences showed 21.9% (n=7) with no anxiety, 31.3% (n=10) with mild anxiety, 34.4% (n=11) with moderate anxiety, and 12.5% (n=4) with severe anxiety. The Faculty of Resource Science and Technology reported 8.7% (n=2) with no anxiety, 43.5% (n=10) with mild anxiety, 30.4% (n=7) with moderate anxiety, and 17.4% (n=4) with severe anxiety. The Faculty of Social Sciences and Humanities had 25.5% (n=13) with no anxiety, 27.5% (n=14) with mild anxiety, 19.6% (n=10) with moderate anxiety, and 27.5% (n=14) with severe anxiety.

#### 4.2.10 The Prevalence of Suicidal Ideation Between Genders

**Table 4.2.10:** *The Prevalence of Suicidal Ideation Between Genders*

|                   |                      | Gender |              |       |              |
|-------------------|----------------------|--------|--------------|-------|--------------|
|                   |                      | Female |              | Male  |              |
|                   |                      | Count  | Percentage % | Count | Percentage % |
| Suicidal Ideation | Low risk of suicide  | 129    | 46.6%        | 70    | 67.3%        |
|                   | High risk of suicide | 148    | 53.4%        | 34    | 32.7%        |

The table presents data on the prevalence of suicidal ideation among individuals, categorized by gender and risk level. The data distinguishes between low and high risks of suicide for both females and males, providing both the count and percentage for each category. Among females, 129 individuals (46.6%) are identified as having a low risk of suicide, while 148 individuals (53.4%) are considered to be at high risk. This indicates a slightly higher prevalence of high-risk suicidal ideation among females compared to the low-risk category. In contrast, the male population shows a different distribution. Out of the males, 70 individuals (67.3%) are

classified as having a low risk of suicide, and 34 individuals (32.7%) fall into the high-risk category.

#### 4.2.11 The Prevalence of Suicidal Ideation Between Year of Study

**Table 4.2.11:** *The Prevalence of Suicidal Ideation Between Year of Study*

|               |        | Suicidal Ideation   |              |                      |              |
|---------------|--------|---------------------|--------------|----------------------|--------------|
|               |        | Low risk of suicide |              | High risk of suicide |              |
|               |        | Count               | Percentage % | Count                | Percentage % |
| Year of Study | Year 1 | 72                  | 52.2%        | 66                   | 47.8%        |
|               | Year 2 | 62                  | 53.4%        | 54                   | 46.6%        |
|               | Year 3 | 48                  | 49.0%        | 50                   | 51.0%        |
|               | Year 4 | 14                  | 53.8%        | 12                   | 46.2%        |
|               | Year 5 | 3                   | 100.0%       | 0                    | 0.0%         |

The table illustrates the prevalence of suicidal ideation among students, categorized by their year of study. The data is divided into two groups: those at low risk of suicide and those at high risk of suicide. For each year of study, the table provides both the count and percentage of individuals in each risk category. In the first year of study, 72 students (52.2%) are identified as having a low risk of suicide, while 66 students (47.8%) are considered to be at high risk. This distribution suggests a relatively balanced but slightly higher prevalence of low-risk suicidal ideation among first-year students. Among second-year students, 62 individuals (53.4%) are at low risk, compared to 54 individuals (46.6%) at high risk. The data indicates a marginally higher proportion of students at low risk, with the distribution remaining fairly close. The third year shows 48 students (49.0%) at low risk and 50 students (51.0%) at high risk. This is the only year where the high-risk category surpasses the low-risk category, suggesting a concerning trend in this cohort. In the fourth year, 14 students (53.8%) are at low risk of suicide, whereas 12 students (46.2%) are at high risk. Similar to the earlier years, the low-risk group is

slightly larger, but the difference is not substantial. The fifth-year students exhibit a distinct pattern, with 3 students (100.0%) being at low risk and none at high risk.

#### 4.2.12 The Prevalence of Suicidal Ideation Between Faculty

**Table 4.2.12:** *The Prevalence of Suicidal Ideation Between Faculty*

|         |                                                        | Suicidal Ideation   |              |                      |              |
|---------|--------------------------------------------------------|---------------------|--------------|----------------------|--------------|
|         |                                                        | Low risk of suicide |              | High risk of suicide |              |
|         |                                                        | Count               | Percentage % | Count                | Percentage % |
| Faculty | Faculty of Applied and Creative Arts                   | 18                  | 56.3%        | 14                   | 43.8%        |
|         | Faculty of Built Environment                           | 20                  | 64.5%        | 11                   | 35.5%        |
|         | Faculty of Cognitive Science and Human Development     | 27                  | 44.3%        | 34                   | 55.7%        |
|         | Faculty of Computer Science and Information Technology | 14                  | 58.3%        | 10                   | 41.7%        |
|         | Faculty of Economics and Business                      | 25                  | 49.0%        | 26                   | 51.0%        |
|         | Faculty of Education, Language and Communication       | 20                  | 44.4%        | 25                   | 55.6%        |
|         | Faculty of Engineering                                 | 17                  | 54.8%        | 14                   | 45.2%        |
|         | Faculty of Medicine and Health Sciences                | 18                  | 56.3%        | 14                   | 43.8%        |
|         | Faculty of Resource Science and Technology             | 14                  | 60.9%        | 9                    | 39.1%        |
|         | Faculty of Social Sciences and Humanities              | 26                  | 51.0%        | 25                   | 49.0%        |

The table provides a detailed analysis of the prevalence of suicidal ideation among students across various faculties, categorized into low and high risk of suicide. Each faculty's data includes both the count and percentage of students in each risk category. Within the Faculty of Applied and Creative Arts, 18 students (56.3%) are at low risk of suicide, while 14 students (43.8%) are at high risk. This indicates a higher proportion of students at low risk compared to those at high risk. In the Faculty of Built Environment, 20 students (64.5%) are identified as

having a low risk of suicide, and 11 students (35.5%) are at high risk. This faculty shows a notably higher percentage of students at low risk. The Faculty of Cognitive Science and Human Development has 27 students (44.3%) at low risk and 34 students (55.7%) at high risk. This faculty is unique in having a higher proportion of students at high risk of suicide.

Among the students in the Faculty of Computer Science and Information Technology, 14 (58.3%) are at low risk, whereas 10 (41.7%) are at high risk. This distribution suggests a majority of students are at low risk. The Faculty of Economics and Business shows 25 students (49.0%) at low risk and 26 students (51.0%) at high risk. This near-equal distribution indicates a balanced risk profile with a slight majority at high risk. In the Faculty of Education, Language, and Communication, 20 students (44.4%) are at low risk, while 25 students (55.6%) are at high risk. This faculty has a higher proportion of students at high risk of suicide. The Faculty of Engineering reports 17 students (54.8%) at low risk and 14 students (45.2%) at high risk. The majority of students in this faculty are at low risk. Within the Faculty of Medicine and Health Sciences, 18 students (56.3%) are at low risk, while 14 students (43.8%) are at high risk, similar to the Faculty of Applied and Creative Arts. The Faculty of Resource Science and Technology has 14 students (60.9%) at low risk and 9 students (39.1%) at high risk. This faculty shows a significant majority of students at low risk. In the Faculty of Social Sciences and Humanities, 26 students (51.0%) are at low risk, and 25 students (49.0%) are at high risk.

### 4.3 Inferential Data (Main Findings)

#### 4.3.1 Relationship Between Depression, Anxiety and Suicidal Ideation Among University Students

**Table 4.3.1 (a): Model Summary**

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1     | 4.75 | .225     | .221              | .44133                     |

**Table 4.3.1 (b): ANOVA Table**

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1     | Regression | 21.436         | 2   | 10.718      | 55.028 | .000 <sup>b</sup> |
|       | Residual   | 73.624         | 378 | .195        |        |                   |
|       | Total      | 95.060         | 380 |             |        |                   |

a. Dependent Variable: Suicidal Ideation

b. Predictors: (Constant), Anxiety, Depression

**Table 4.3.1 (c): Coefficients Table**

|       |            | Coefficients <sup>a</sup>   |            |                           |        |      |                                 |             |
|-------|------------|-----------------------------|------------|---------------------------|--------|------|---------------------------------|-------------|
| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | 95.0% Confidence Interval for B |             |
|       |            | B                           | Std. Error | Beta                      |        |      | Lower Bound                     | Upper Bound |
| 1     | (Constant) | .861                        | .065       |                           | 13.160 | .000 | .732                            | .989        |
|       | Depression | .173                        | .026       | .426                      | 6.777  | .000 | .123                            | .223        |
|       | Anxiety    | .033                        | .031       | .066                      | 1.055  | .292 | -.028                           | .094        |

a. Dependent Variable: Suicidal Ideation

Multiple regression was used to test if anxiety and depression significantly predicted suicidal ideation. R Square = 0.475 as shown in Table 4.3.1 (a), which means 48% of the change in Suicidal Ideation can be explained by the predictor/independent variable (in this case, depression). It was found that depression significantly predicted suicidal ideation ( $p = 0.00 < 0.05$ ). Next, it was found that anxiety did not significantly predict suicidal ideation ( $p = 0.29 > 0.05$ ). The overall regression was statistically significant ( $R^2=0.48$ ,  $F(2,378) = 55.03$ ,  $p = 0.00$ ). In conclusion, only depression could be used to predict suicidal ideation.

#### 4.3.1.1 Discussion

Studies have shown that individual suicidal ideation is significantly correlated with depression, and depressive symptoms are strong predictors of suicidal ideation (Satinsky et al., 2021). A study by Muneeb Hassan (2022) also found that depression was found to be the most significant predictor of suicidal ideation. Additionally, depression often causes individuals to feel hopeless and useless, making it easier for them to end their lives in an attempt to escape their pain, causing them to be more tolerant and receptive to the idea of suicide (Peng et al., 2023). The burden of such clinically significant depressive symptoms may result in suicide, the ultimate consequence. National and worldwide studies have consistently indicated that depression is the

main factor in more than half of the million suicidal deaths occurring each year (Fukai et al., 2020).

The most consistent determinants for SI were a depressive disorder and comorbid depressive and anxiety disorder (both compared to an anxiety disorder) and higher severity of depression (Wiebenga et al., 2021). When compared to non-suicidal respondents, respondents with suicidal ideation were also more likely to have a lower severity of anxiety. Studies have shown that high levels of career anxiety are correlated with increased suicidal tendencies, such as repulsion for life and attraction to death, which means that low career anxiety is linked to decreased suicidal tendencies in students (Onyishi, 2023).

It is crucial to emphasize that suicidal ideation is not solely determined by depression or anxiety. A multitude of factors, including genetic predisposition, environmental stressors, and access to mental health care, contribute to suicide risk. According to Mayo Clinic (2018), risk factors for suicide include previous attempts, feelings of hopelessness or isolation, stressful life events, substance abuse, and access to firearms. Psychiatric disorders, family history of mental issues, chronic illnesses, and being LGBT in an unsupportive environment also increase risk. For children and teens, additional risks include conflict with friends or family, abuse, bullying, and exposure to suicide. In rare cases, suicidal individuals may also kill others before themselves, with risk factors including relationship conflicts and mental health issues. Antidepressants have black box warnings for increased suicidal thoughts in young people but generally reduce suicide risk by improving mood over time. Additionally, while the information presented here focuses on the correlation between mental health and suicide, it is essential to acknowledge that individuals experiencing suicidal thoughts come from diverse backgrounds and face unique challenges.

#### **4.4 Conclusion**

Chapter 4 presents the demographic profile and mental health analysis of university students. The study examined various demographic factors, such as gender, race, age, faculty, year of study, and CGPA, using descriptive statistics. The findings reveal that the majority of respondents were female, Bumiputera Sarawak, aged 19-22, and in their first year of study. The mental health assessment indicates varying levels of depression, anxiety, and suicidal ideation among the students, with significant differences observed across different demographic groups. The data highlight the prevalence of moderate to severe mental health issues, emphasizing the need for targeted interventions and support for students' well-being.

## **CHAPTER FIVE**

### **LIMITATION, IMPLICATION, RECOMMENDATION AND CONCLUSION**

#### **5.0 Introduction**

Chapter Five delves into the limitations, implications, recommendations, and overall conclusion of the study. It addresses the inherent constraints of the research methodology, particularly the cross-sectional design and reliance on self-report measures, and suggests future research directions. The chapter also highlights the broader implications of the findings for mental health strategies and policies within university settings, emphasizing the need for comprehensive, inclusive, and targeted interventions to address mental health challenges among students.

#### **5.1 Limitations of Study**

A cross-sectional research methodology was used for this study. This research technique shows the thing being studied at a particular time. Cross-sectional studies help determine how familiar something is and how it is linked to other things but cannot prove that one thing caused another. For this study, the cross-sectional design makes it harder to figure out what causes the variables of interest, which are depression, anxiety, and suicidal thoughts among university students. A more thorough look at how time changes and what causes things could be made possible by longitudinal studies, which keep track of participants over a long period. This would allow for a more nuanced look at how mental health problems grow and what causes them.

Self-report measures are the primary way that depression, anxiety, and suicidal thoughts are measured among university students in this study. Even though self-report tools are a valuable

and common way to gather information, they can be problematic because of response bias. People may give socially acceptable answers, or they may experience recall biases that cause them to give false information about their mental health issues. Because of this, some subjectivity might make the prevalence numbers from the study less accurate and reliable. To make the research more rigorous, future studies could use a mix of quantitative and qualitative methods. This would give us a more detailed picture of how university students deal with their mental health.

The sample size for this study is primarily made up of 277 (72.7%) females compared to 104 (27.3%) males. This disproportionate number of genders may affect the generalizability of findings across a more balanced population. Next, this study is also limited to the geographical location and university (in this case, Universiti Malaysia Sarawak). This may cause the study's findings not to reflect students' mental health status in other areas or universities, such as in Malaysia or abroad.

## **5.2 Implications**

The study's conclusions have far-reaching implications for enhancing our understanding and management of mental health concerns among university students. The insights gleaned from this study reveal a critical need for a multifaceted approach to mental health that acknowledges the complexity of factors influencing student well-being. Firstly, the notable high prevalence of anxiety and depression detected among students underscores the urgent requirement for bolstered mental health awareness initiatives. This calls for concerted efforts to destigmatize mental health issues on campuses. By fostering an environment where students feel

comfortable discussing their mental health challenges without fear of judgment, universities can play a pivotal role in breaking down barriers to seeking help.

Additionally, the study identifies specific faculties such as Applied and Creative Arts, Economics and Business, and Social Sciences and Humanities, where students are particularly vulnerable to severe anxiety and depression. These findings suggest the necessity for targeted mental health interventions that cater to the unique stressors and pressures experienced by students within these disciplines. Tailoring programs and resources to meet the specific needs of these groups can lead to more effective support and better outcomes. The investigation also sheds light on the importance of implementing gender-specific support systems. The higher incidence of severe anxiety observed amongst female students indicates that gender plays a significant role in mental health dynamics among the university populace. Addressing this disparity requires the development of support mechanisms that are sensitive to the distinct experiences and challenges faced by students of different genders.

Lastly, the data point to a critical window of opportunity for early intervention among first and second-year students notably affected by anxiety and depression. Implementing comprehensive prevention and early intervention programs during the initial stages of university life could be instrumental in managing these concerns. By equipping students with coping strategies and support at the outset of their university experience, institutions can help mitigate the development of more severe mental health issues. In conclusion, the study underlines the necessity of a holistic and inclusive approach to student mental health that encompasses increased awareness, targeted and gender-specific interventions, and early preventive measures. Such efforts will not only contribute to the well-being of individual students but also foster healthier and more supportive university communities.

### **5.3 Recommendations**

Building on the foundational work laid out in this study, further research is imperative in paving the way for more effective strategies in addressing mental health concerns among university students. To gain a nuanced understanding of the trajectories of mental health issues like depression, anxiety, and suicidal ideation among students, future research should adopt longitudinal designs. By tracking individuals' mental health status over several years, researchers can uncover patterns, identify critical periods of vulnerability, and understand the long-term efficacy of interventions. This approach allows for the observation of changes and developments in mental health over time, providing insights into how these issues might escalate, improve, or remain constant throughout one's academic career.

The scope and impact of mental health issues can vary significantly across different student populations. Future studies need to broaden their sample sizes to ensure robust statistical power. Moreover, incorporating a diverse array of participants—including a balanced representation of genders, inclusion of students from a variety of universities (both public and private), and individuals from different geographic regions—will enhance the external validity of the findings. Embracing diversity in research samples is crucial for capturing the wide array of experiences and ensuring that interventions are inclusive and responsive to the needs of all students.

While quantitative data can highlight trends and patterns in mental health issues, qualitative research methods offer depth and context. By employing interviews, focus groups, and case studies, researchers can delve into the personal narratives and lived experiences of students grappling with mental health concerns. These stories can illuminate the contextual factors, individual coping mechanisms, and systemic challenges that numbers alone cannot convey.

This approach promises to enrich our understanding and inform more personalized and empathetic mental health initiatives.

A critical step in advancing mental health support for students is the rigorous evaluation of intervention strategies. Future research should focus on assessing the effectiveness of various mental health programs and support services in alleviating symptoms of depression, anxiety, and suicidal ideation. By employing controlled trials, pre-and post-assessments, and feedback mechanisms, the research can identify which interventions are most beneficial and why. This evidence base is critical for developing best practices and guiding universities in implementing the most effective mental health services for their student bodies.

Mental health is influenced by a complex interplay of factors, and there is a need to explore beyond the immediate academic environment. Future studies should consider examining additional variables that may impact mental health, such as socioeconomic status, family background, cultural influences, and the presence or absence of social support networks. Understanding how these factors interact with students' mental health can help identify at-risk populations and tailor interventions to address the specific needs of diverse student groups.

## **5.5 Conclusion**

In conclusion, the study identifies several key areas that require attention to better understand and address mental health issues among university students. The limitations of the cross-sectional design and self-report measures highlight the need for longitudinal studies and mixed-method approaches in future research. Recommendations for expanding sample diversity, incorporating qualitative research methods, assessing intervention efficacy, and exploring a broader scope of variables are crucial for developing effective mental health strategies. The

study's findings underscore the importance of targeted interventions, gender-specific support, and early prevention programs to improve mental health outcomes and foster supportive university communities. Through these efforts, universities can better support their students' mental well-being and academic success.

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**APPENDIX A**  
**INSTRUMENTS**

## Section A: Informed Consent

### ELECTRONIC INFORMED CONSENT FORM (BORANG PERSETUJUAN/ KEIZINAN PESERTA ELEKTRONIK)

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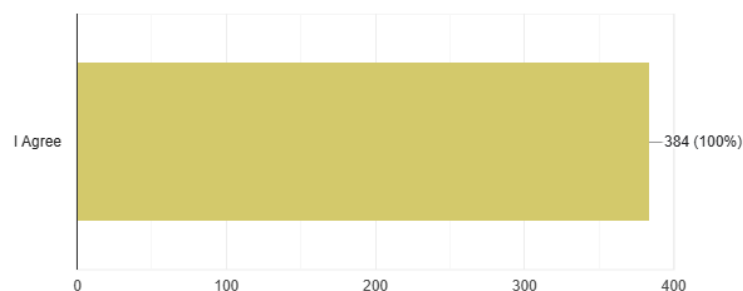
Title of Study: Depression, Anxiety and Suicidal Ideation Among University Students: A Prevalence Study

Tajuk kajian: Kemurungan, Kebimbangan dan Idea Membunuh Diri dalam Kalangan Pelajar Universiti: Kajian Kelaziman

By clicking on the "agree" button indicates that:  
(Dengan menekan butang "setuju", saya mengesahkan bahawa):

1. I have been read and understood the information for the above study.  
(Saya telah membaca dan memahami segala maklumat tentang penyelidikan di atas).
2. I have sufficient time to consider participation in the study.  
(Saya telah diberikan masa yang secukupnya untuk mempertimbangkan penyertaan saya dalam penyelidikan ini).
3. I understand that my participation is voluntary, and I can freely withdraw my participation from the study without giving a reason. I understand the risks and benefits related to my participation in the study.  
(Saya juga faham bahawa penyertaan saya adalah secara sukarela dan pada bila-bila masa saya bebas menarik diri daripada penyelidikan ini tanpa harus memberi sebarang alasan. Saya juga memahami tentang risiko dan manfaat penyelidikan ini).
4. While information gained in this study, it may be used in a conference presentation, and may also be published in a journal article, I will not be identified. Information concerning me will remain strictly confidential.  
(Kajian ini boleh dibentangkan di persidangan dan kajian ini juga boleh diterbitkan didalam jurnal, dengan syarat diri saya tidak akan dikenal pasti. Maklumat mengenai diri saya akan disimpan secara sulit).
5. I understand that study investigators, qualified monitors and auditors, the sponsor or its affiliates, and governmental or regulatory authorities, have direct access to my record in order to make sure that the study is conducted correctly, and the data are recorded correctly. All personal details will be treated as STRICTLY CONFIDENTIAL.  
(Saya faham bahawa penyelidik, pemantau dan juruaudit terlatih, pihak penaja atau gabungannya, dan pihak berkuasa kerajaan atau undang-undang, mempunyai akses langsung dan boleh menyemak laporan saya bagi memastikan penyelidikan ini dijalankan dengan betul dan data direkodkan dengan betul. Segala maklumat dan data peribadi akan dianggap sebagai SULIT.)

384 responses

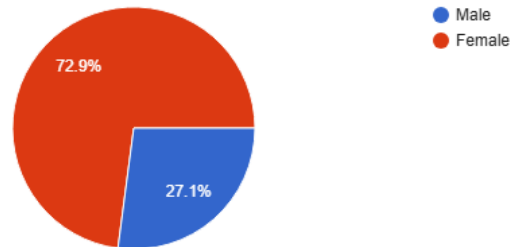


## Section B: Demographic Information

### Gender

384 responses

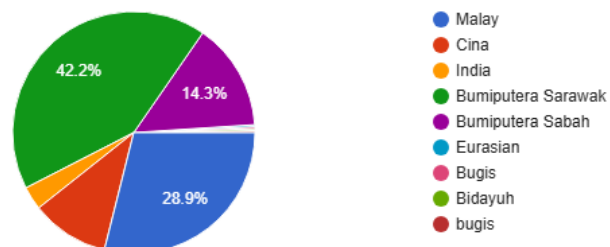
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### Race

384 responses

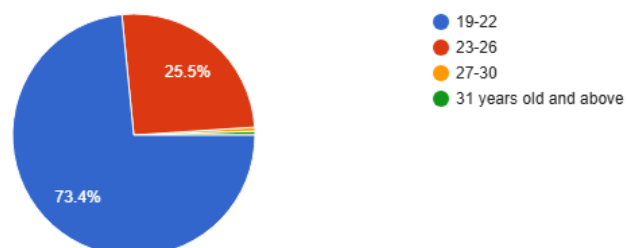
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### Age

384 responses

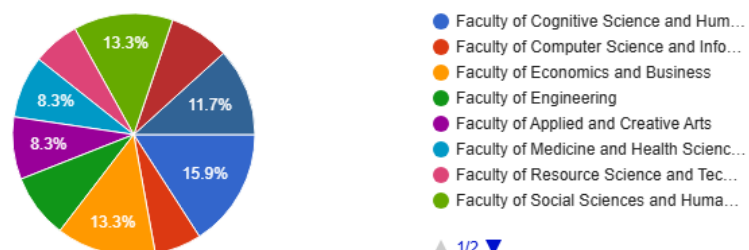
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### Faculty

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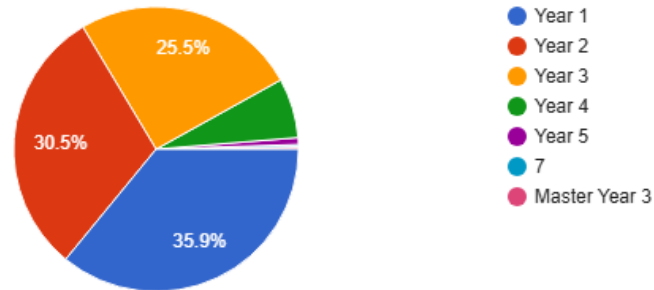


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### Year of Study

384 responses

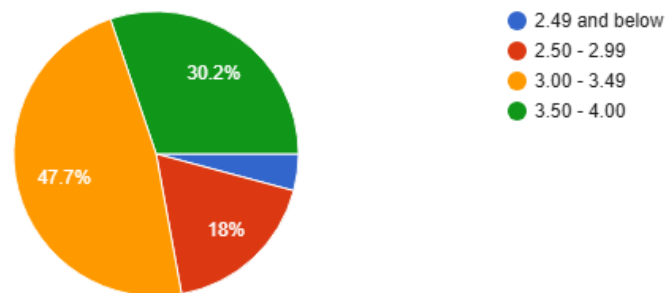
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### CGPA

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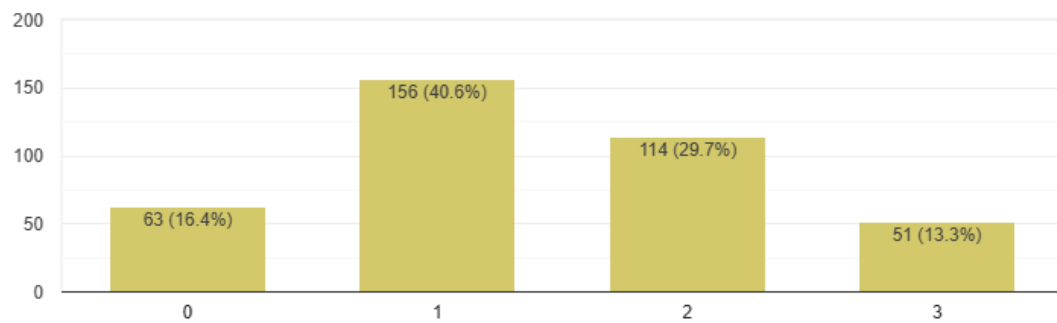


## Section C: Patient Health Questionnaire-9 (PHQ-9)

### Little interest or pleasure in doing things

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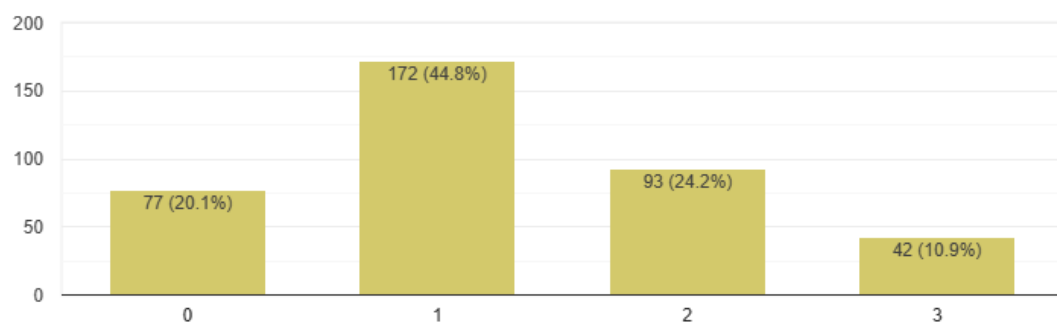
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### Feeling down, depressed or hopeless

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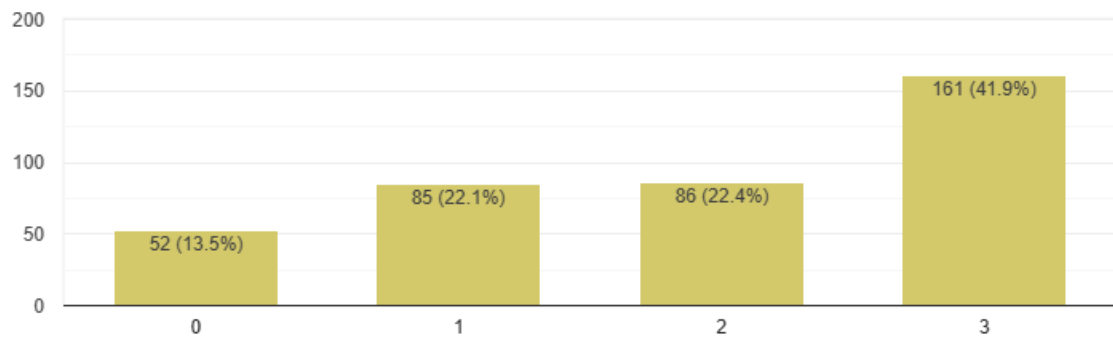
384 responses



### Trouble falling asleep, staying asleep, or sleeping too much

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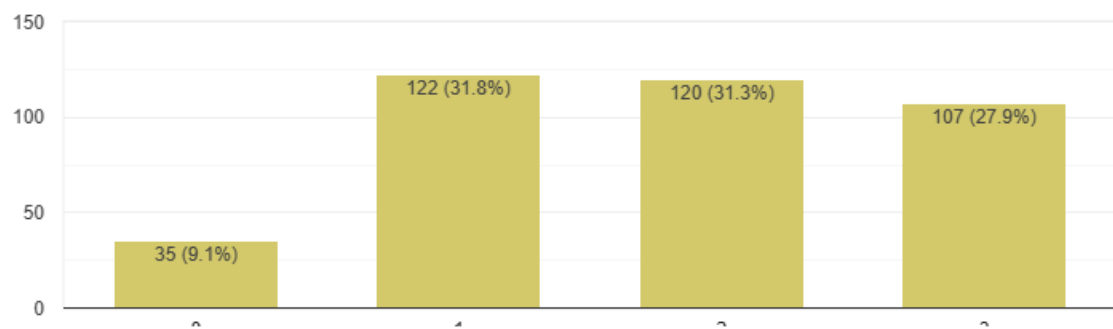
384 responses



### Feeling tired or having little energy

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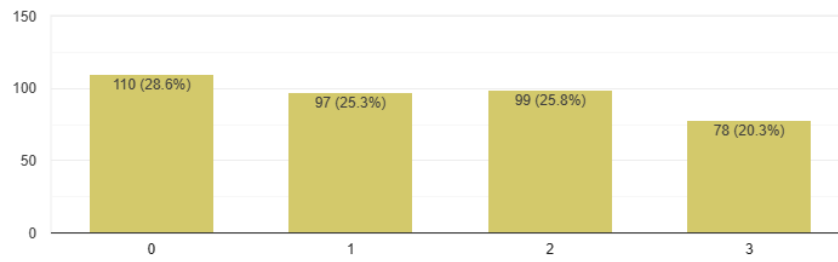
384 responses



### Poor appetite or overeating

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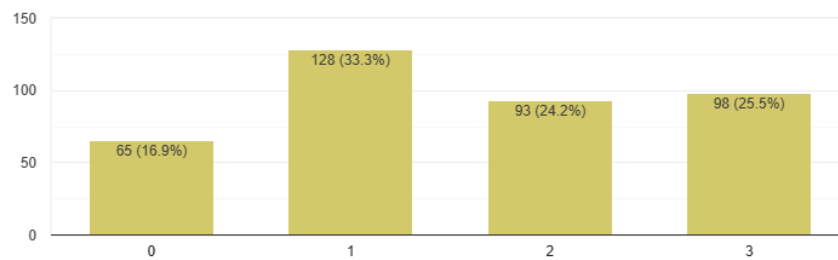
384 responses



### Feeling bad about yourself - or that you are a failure or have let yourself or your family down

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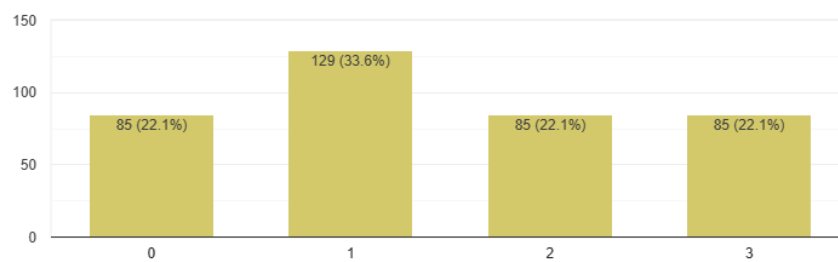
384 responses



### Trouble concentrating on things, such as reading the newspaper or watching television

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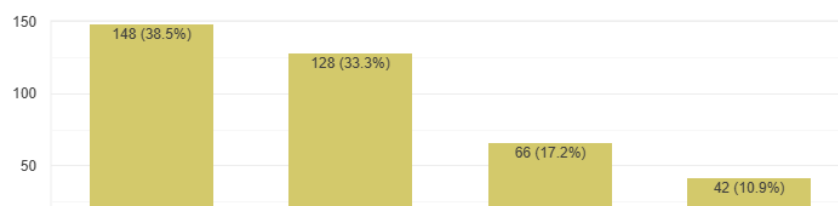
384 responses



### Moving or speaking so slowly that other people could have noticed. Or, the opposite - being so fidgety or restless that you have been moving around a lot more than usual

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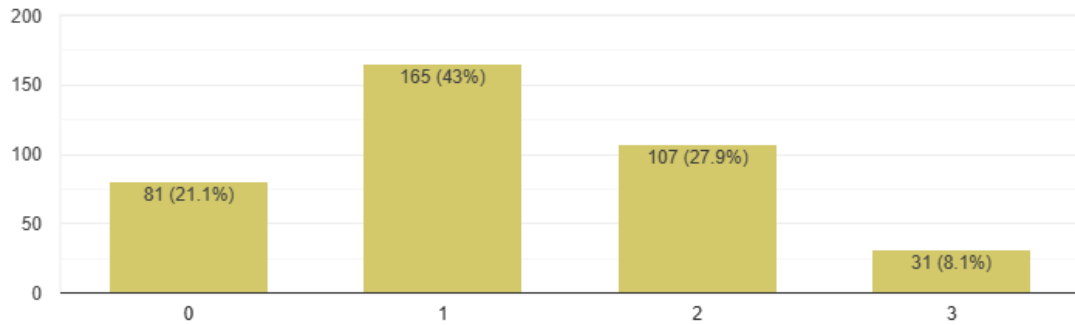
384 responses



If you checked off any problems, how difficult have those problems made it for you to do your work, take care of things at home, or get along with other people?

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384 responses

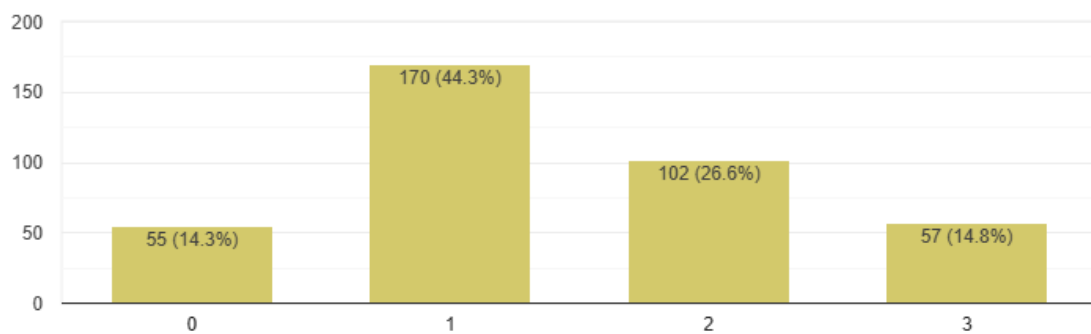


#### Section D: General Anxiety Disorder-7 (GAD-7)

Feeling nervous, anxious, or on edge

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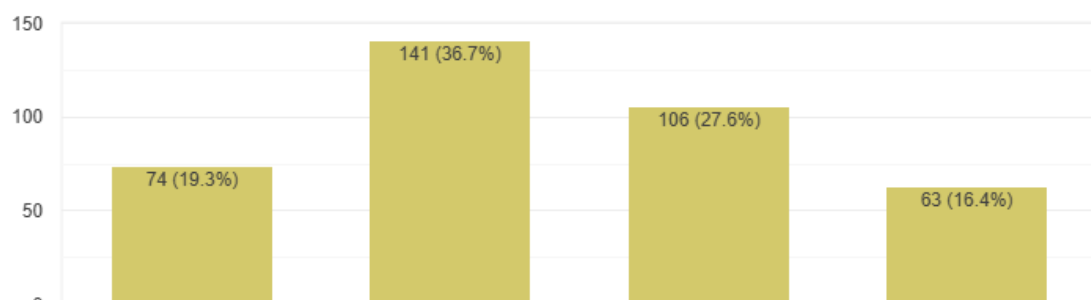
384 responses



Not being able to stop or control worrying

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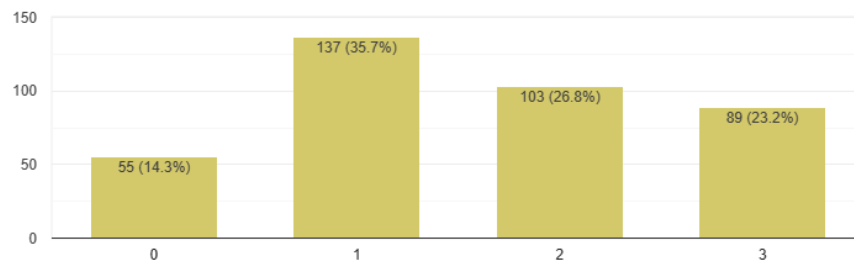
384 responses



### Worrying too much about different things

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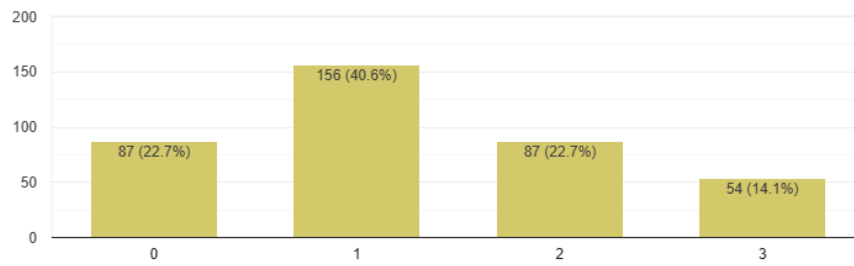
384 responses



### Trouble relaxing

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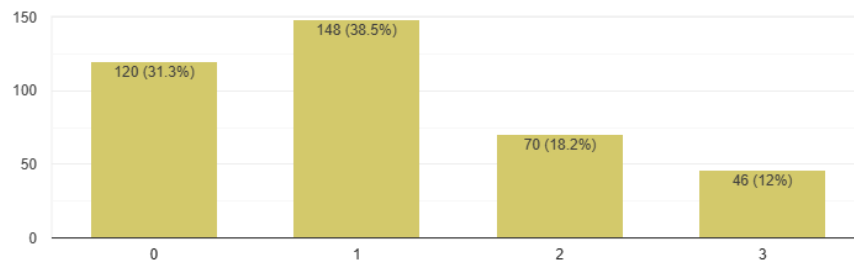
384 responses



### Being so restless that it is hard to sit still

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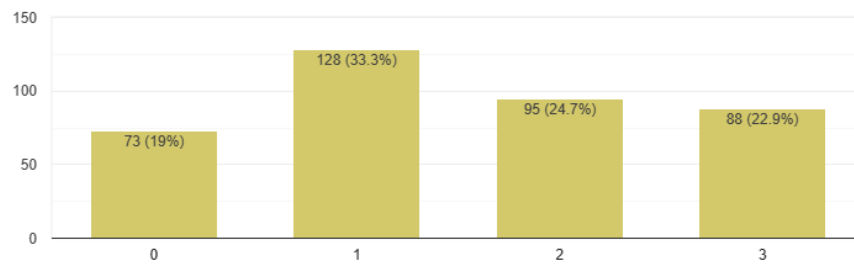
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### Becoming easily annoyed or irritable

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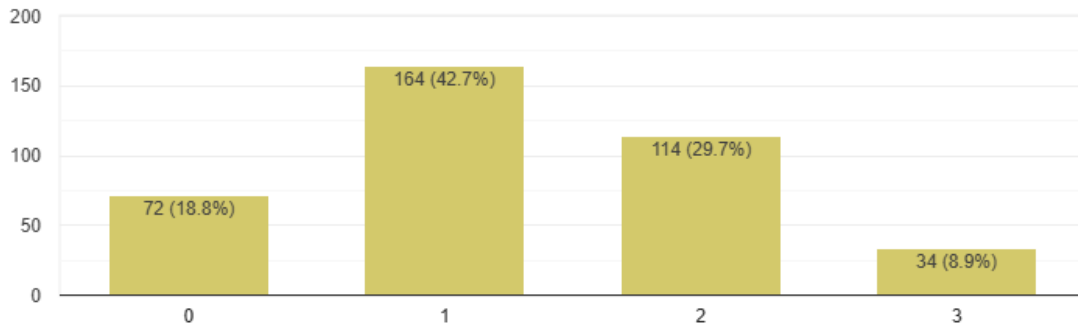
384 responses



If you checked any problems, how difficult have they made it for you to do your work, take care of things at home, or get along with other people?

[Copy](#)

384 responses

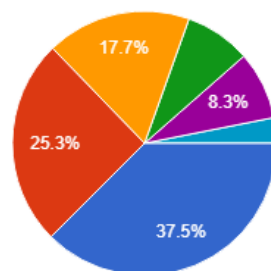


#### Section E: Suicide Behaviors Questionnaire-Revised (SBQ-R)

1. Have you ever thought about or attempted to kill yourself? **(Check one only)**

[Copy](#)

384 responses

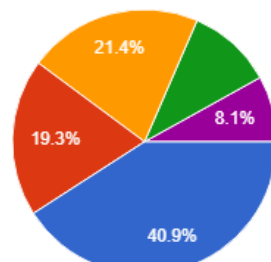


- 1. Never
- 2. It was just a brief passing thought
- 3a. I have had a plan at least once to kill myself but did not try to do it
- 3b. I have had a plan at least once to kill myself and really wanted to die
- 4a. I have attempted to kill myself but did not want to die
- 4b. I have attempted to kill myself and really hoped to die

2. How often have you thought about killing yourself in the past year? **(Check one only)**

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384 responses

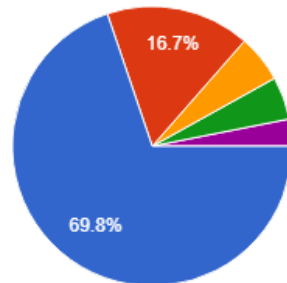


- 1. Never
- 2. Rarely (1 time)
- 3. Sometimes (2 times)
- 4. Often (3-4 times)
- 5. Very often (5 or more times)

3. Have you ever told someone that you were going to commit suicide or that you might do it? **(Check one only)**

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384 responses

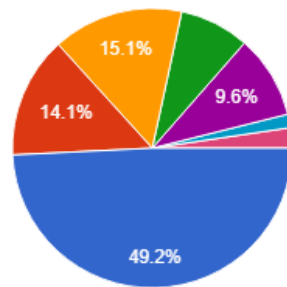


- 1. No
- 2a. Yes, at one time, but it did not really want to die
- 2b. Yes, at one time, and really wanted to die
- 3a. Yes, more than once, but did not want to do it
- 3b. Yes, more than once, and really wanted to do it

4. How likely is it that you will attempt suicide someday? **(Check one only)**

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384 responses



- 0. No
- 1. No chance at all
- 2. Rather unlikely
- 3. Unlikely
- 4. Likely
- 5. Rather likely
- 6. Very likely