



Faculty of Cognitive Sciences and Human Development

**EXPLORING THE IMPACT OF ACADEMIC STRESS ON
SUICIDAL BEHAVIOURS AMONG UNDERGRADUATE STUDENTS**

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ABSTRACT

This study aimed to examine the impact of academic stress on suicidal behaviours among undergraduate students in Malaysia. The study utilised a cross-sectional quantitative design to survey 160 undergraduate students from Malaysian institution using the Perceived Academic Stress (PAS) Scale and the Suicide Behaviours Questionnaire-Revised (SBQ-R). Results indicated a low overall prevalence of suicidal attempts at 9.4%, with Year 3 students exhibiting the highest prevalence rate of suicide attempts at 5.0%. Interestingly, a weak negative correlation ($r = -0.287$, $p < 0.05$) between academic stress and suicidal behaviours was found. As academic stress increases, suicidal behaviours decrease, suggesting that students under high stress might develop coping mechanisms that reduce suicidal tendencies. However, Multiple Regression analysis revealed that workload and examinations significantly predicted suicidal behaviours, accounting for 6.3% of the variance. The findings highlighted the importance of mental health resources, social support, and resilience in reducing the risk of suicidal behaviours and underscore the need for comprehensive mental health services and targeted interventions within universities.

Keywords: Academic stress, suicidal behaviours, workload and examinations

ABSTRAK

Kajian ini bertujuan untuk mengkaji kesan tekanan akademik terhadap tingkah laku bunuh diri dalam kalangan pelajar pra-siswazah di Malaysia. Kajian ini menggunakan reka bentuk kuantitatif keratan rentas dengan 160 pelajar pra-siswazah dari institusi Malaysia, menggunakan Skala Perceived Academic Stress (PAS) dan Soal Selidik Tingkah Laku Bunuh Diri (SBQ-R). Hasil kajian menunjukkan kekerapan percubaan bunuh diri yang rendah pada 9.4%, dengan pelajar Tahun 3 menunjukkan kadar prevalens tertinggi percubaan bunuh diri pada 5.0%. Menariknya, terdapat korelasi negatif yang lemah ($r = -0.287$, $p < 0.05$) antara tekanan akademik dan tingkah laku bunuh diri. Apabila tekanan akademik meningkat, tingkah laku bunuh diri berkurangan, menunjukkan bahawa pelajar yang mengalami tekanan tinggi mungkin menggunakan mekanisme daya tindak yang mengurangkan kecenderungan membunuh diri. Walaubagaimanapun, analisis Regresi Berganda mendapati beban kerja dan peperiksaan secara signifikan meramalkan tingkah laku bunuh diri menyumbang 6.3% daripada varians. Penyelidikan pada masa depan harus menggunakan reka bentuk longitudinal, sampel yang lebih besar dan pelbagai, serta meneroka faktor perlindungan dan tekanan yang lain. Dapatan kajian menekankan kepentingan sumber kesihatan mental, sokongan sosial dan daya tahan dalam mengurangkan risiko tingkah laku membunuh diri serta pentingnya mewujudkan perkhidmatan kesihatan mental yang komprehensif dan campurtangan yang disasarkan di universiti.

Kata kunci: Tekanan akademik, tingkah laku membunuh diri, beban kerja dan peperiksaan

CHAPTER ONE

INTRODUCTION

1.0 Introduction

In this chapter, the research will discuss about background of study, problem statement, research objectives and research questions. This chapter will also include the definition of terms, the study's limitation and the significant of the study.

1.1 Background of Study

University years were often perceived as a period of personal development, yet they may be quite stressful in terms of academics. Stress may have a negative impact on mental health of the students, potentially worsen existing problems or leading to the development of new ones. Numerous studies have documented the prevalence of stress among undergraduate students and how it negatively affects mental health outcomes. For example, Fauzi et al. (2021) found that, undergraduate students reported experiencing stress with the association of risk factor such as academic pressure, poor quality sleep and psychological stressor. On the other hand, Pascoe et al. (2020) also mentioned that academic stress can contribute to poor quality of life, poor physical health and sleep disruption. However, it was shown that students will experience lower academic stress by practicing self-care in their daily life (O'Neill et al., 2019).

Notably, it was found that, first year students were found to be vulnerable to high stress level. Recent study by Jia & Loo (2018) revealed that undergraduate student demonstrated a high prevalence rate of perceived stress especially among female and first year student. Most of the new students might experience culture shock due to the differences between university and school life, contributing to the feeling of stress. Additionally, academic stress was a significant factor that impact the mental health and well-being of tertiary students (Pascoe et al., 2020). Students frequently face a variety of stresses linked to academic performance as they navigate the demands of higher education, including fear of failure, family expectation, lack of motivation and interpersonal issues (Muna, 2018). Besides that, students who experience poor mental health were reported to perform poorly in their academic, which can also contribute to stress (Zahit et al., 2022).

Thus, if this stress is neglected or mishandled, they can lead to a more severe consequences like suicide. Suicide is a serious threat to public health and there were an estimated 703,000 suicide deaths globally every year with individual aging 15 to 19 years old facing the fourth highest death rate (WHO, 2023). The age range between 18 and 24 represents the largest percentage of undergraduate students, approximately 75 percent (Reyes, 2023). Yadav and Srivastava (2020) highlighted that most of the suicides were caused by a fear of failure and the family expectation and unexpected environmental changes. Given the alarming prevalence of stress and its potential association with suicide in this vulnerable population, the purpose of this study was to delve deeper into the relationship between academic stress and suicidal behaviour including suicidal thoughts and attempts.

1.2 Problem Statement

Although a significant amount of literature has been written about academic stress and how it related to mental health conditions like depression (Jiang et al., 2021) and anxiety (Giota & Gustafsson, 2020), little research has been done on the connection between academic stress and suicidal attempts. Most research only focused on the relationship between stress in general and suicidal behaviours. For example, a study by Farahbakhsh et al. (2020) demonstrated that stressful life events such as financial problems, early marriage, exposure to a new condition and family conflicts were strongly associated with suicide attempts. Another study also revealed that perceived stress was a significant risk factor among college students (Hirsch et al., 2019).

Many studies also have linked academic stress with suicidal ideation. For instance, Desai et al. (2021) found high rates of suicidal thoughts among medical students, with academic stress being a contributing factor. Similarly, Kabbash (2023) highlighted the susceptibility of undergraduate students to suicidal thoughts and behavior due to academic stress. Sun et al. (2017) noted a significant risk of suicidal ideation, planning, and attempts among medical students, with the mother's parenting style and level of education, influencing suicide behavior. On the other hand, freshman or first-year students were most likely to be associated with suicidal behaviors. Mortier et al. (2018) mentioned that most of them has previously been lifetime planners and then had switched to attempts. Additionally, the study

also highlights the importance of mental health support services and the need for increased awareness and resources especially in the college.

Although achieving academic achievement is essential to a university education, the constant pursuit of success can negatively affect mental health. Numerous studies have shown a connection between academic stress and suicide thoughts, anxiety (Khan et al., 2022), and depression (Zhang et al., 2020). Nevertheless, a significant gap remains in understanding how this stress escalates to suicide attempts among undergraduates, compounded by various stress factors they face. Moreover, much of the research focuses solely on suicidal ideation and overlooks the vital necessity to investigate the factors that drive students to attempt suicide. Given that suicidal attempts signify a critical stage of distress, this study aims to address the gap by exploring the which of academic stress factor that elevate the risk of suicidal attempts.

1.3 Research Objectives

1.3.1 General Objective

- To investigate the impact of academic stress on suicidal behaviours among undergraduate students.

1.3.2 Specific Objectives

1. To examine the prevalence of suicidal attempts between year of study among undergraduate students.
2. To investigate the correlation between academic stress and suicidal behaviours among undergraduate students.
3. To identify the factors of academic stress that lead to suicidal behaviours among undergraduate students.

1.4 Research Questions

1. What is the prevalence of suicidal attempts between year of study among undergraduate students?
2. Is there any correlation between academic stress and suicidal behaviours among undergraduate students?

3. What is the factor of academic stress that lead to suicidal behaviours among undergraduate students?

1.5 Research Hypotheses

1. There is a high prevalence of suicidal attempts in different year of study among undergraduate students.
2. There is a significant correlation between academic stress and suicidal behaviours among undergraduate students.
3. Academic stress (academic expectation, workload and examination, students' academic self-perception) contributes significantly to suicidal behaviours among undergraduate students.

1.6 Conceptual Framework

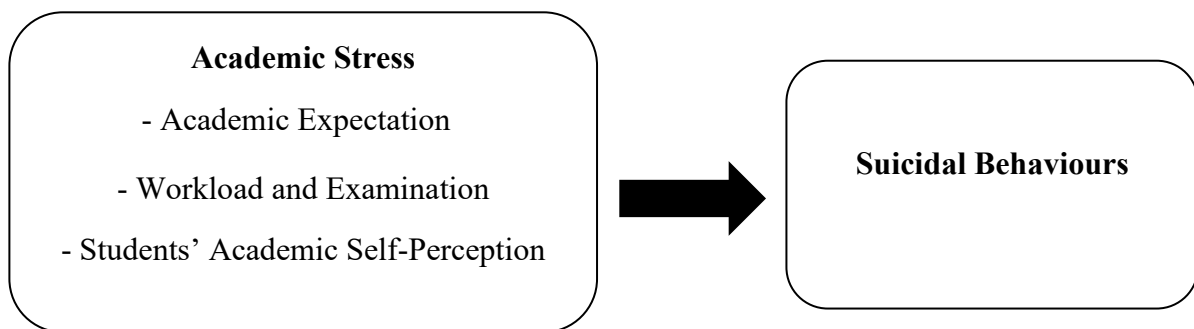


Figure 1.6. Conceptual Framework of The Study

1.7 Significance of Study

The study is conducted to promote a better and more supportive academic environment and starts with an understanding of the factor contributing to academic stress and its consequences to mental health, including suicidal attempts. Besides that, the study seeks to identify student at risk of suicidal behaviours. By recognizing the signs and risk factors associated with academic stress and suicidal behaviours, preventative and intervention plans can be implemented to safeguard the students.

1.8 Definition of Terms

1.8.1 Academic Stress

Conceptual Definition:

Alsulami et al. (2018) define academic stress as the body's response to academic pressures that exceed the students' capabilities. It represents the psychological condition of students resulting from sustained social and self-imposed pressures within an educational setting, depleting their psychological resources (Zhang et al., 2022). Additionally, Octasya and Munawaroh (2021) describe academic stress as “a subjective perception of an academic condition or a response experienced by students in the form of negative physical reactions, behaviors, thoughts, and emotions that arise due to school or academic demands”.

Operational Definition:

In this study, academic stress refers to the factor of academic stress that is experienced by undergraduate student which will be measured using Perceived of Academic Stress (PAS) Scale.

1.8.2 Suicidal Behaviours

Conceptual Definition:

According to MedlinePlus (2013), the act of taking one's own life intentionally known as suicide. Meanwhile, suicidal behaviours can be defined as any action that could potentially results in death. These behaviours range from thinking about suicide to attempting suicide. suicidal ideation which refers to thinking, considering or planning about suicide while suicide attempt was a non-fatal, self-directed harmful behaviour with the intent to die (Nationwide Children's, 2024).

Operational Definition:

In this study, suicidal behaviour refer to the behaviours that related to suicide among the students which will be measured using the Suicide Behaviors Questionnaire-Revised (SBQ-R).

1.9 Summary

In summary, this study aims to assess the influence of academic stress on suicidal attempts among undergraduate students. This chapter has covered the background information, problem statement, research objectives, research questions, research hypotheses, conceptual framework, significance of the study, and definitions of terms utilized in this chapter.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, previous research on academic stress and suicidal behaviours, along with associated issues, is reviewed. Additionally, relevant theories/models and previous findings were discussed.

2.1 Academic Stress

Academic stress is commonly defined as a psychological state that weakens a student's psychological reserves within the educational environment as a result of ongoing social and self-imposed pressure (Jiang et al., 2021). The sources of academic stress were varied and include various aspects of the educational experience. It can originate from various sources, workload, expectations, grades, hopelessness, and assignments (Utari & Hamid, 2021). According to Pitt et al. (2018), the major contributors of stress among students were including academic, work and family-related stressors. Crucially, the study also indicated that, the beginning and the end of the first semester appeared to be the most vulnerable period for negative stress-related consequences.

According to study by Ruiz-Robledillo et al. (2022), it was found that university students' levels of academic stress significantly increased, especially after the COVID-19 lockdown. The research further revealed that deficiencies in teaching methodology, excessive academic workload, and performance-related beliefs among teachers were the primary factors contributing to the escalation in academic stress. Prabu (2015) revealed that higher secondary students experience moderate level of stress, with private school students experiencing a higher level of stress than students in government school. Furthermore, year of study and gender might have an impact on academic stress levels, based on research by Aihie and Ohanaka (2019). This study indicated that final year students perceived a higher level of academic stress than first year student. Additionally, male students were reported experiencing more stress compared to female students.

One of the primary sources of academic stress was managing the heavy workloads. Students often face numerous assignments, projects, and deadlines, which can lead to

heightened stress levels. For example, a study by Shdaifat et al. (2018) found that nursing students reported feeling stress due to assignments and workload. The study also indicated that students also experienced additional stress from not meeting teachers' expectations, receiving low grades, and dealing with pressures from clinical practice. Similarly, Ab Latif and Mat Nor (2019) found that assignments and workload were major stressors for students, underscoring the importance of developing healthy coping strategies to alleviate stress. Additionally, Cheung et al. (2020) suggested that peer support can mitigate perceived workload stress, especially for freshman students. The study also highlighted that freshman had significantly lower levels of stress related to their academic burden when they participated in peer support activities.

Additionally, examination pressure also can contribute to the increased level of academic stress. Examination periods were particularly stressful, as they involve high stakes and intense pressure to perform well. Research has shown that women were prone to experiencing elevated levels of chronic stress and also more susceptible to high levels of academic stress during exams and obligatory assignments (Pozos-Radillo et al., 2014). Furthermore, exam anxiety is a common issue among students (von der Embse et al., 2018), in which can lead to inability to perform in their examination (Alamri & Nazir, 2022) and lower academic achievement (King et al., 2024).

2.2 Academic Stress and Mental Health

Academic stress has been increasingly recognized as a critical factor influencing mental health among students. It is often associated with mental health problem such as anxiety and depression. For example, Deng (2022) found that students experiencing elevated academic stress levels reported higher level of depression, which negatively affecting their academic performance and learning outcomes. Additionally, Jiang et al. (2021) revealed that academic stress also posed a serious risk to the mental health of adolescents in junior high school. According to this study, increased level of academic stress was associated to increased school burnout, which therefore results in elevated depression levels. Furthermore, the impact of academic stress on depression through school burnout was influenced by self-esteem whereby the effect was stronger for adolescents with low self-esteem than for those with high self-esteem. Thus, both researches highlighted the importance of addressing academic stressors to support students' mental health and academic success.

Moreover, academic stress also has been shown to be strongly correlated with anxiety. A study by Stankovska et al. (2018) stated that females experienced greater academic stress and exam anxiety. This was due to the higher levels of tension, anxiety, stress, and physical stiffness when taking tests, which might be one of the causes of their rising emotional intelligence scores. Additionally, research by Li et al. (2022) found that high academic stress was associated with elevated levels of anxiety, which mediated the relationship between academic stress and aggression. Interestingly, the study also highlighted that the negative impact of academic stress on anxiety was moderated by extracurricular participation. Specifically, the association between academic stress and anxiety was weaker among adolescents who participated more in extracurricular activities compared to those who participated less. Therefore, effective coping mechanism such as relaxation techniques were essential to help students reduce academic stress and test anxiety (Manansingh et al., 2019).

Furthermore, academic stress also contributed to other mental health problem such as sleep disturbances. According to Liu et al. (2023), academic stress not only has a direct impact on depression, but also influences depression through the mediating factors such as negative affect and sleep quality. The study revealed that as college students experience academic stress, they tend to perceive more negative emotions, which further deteriorate their sleep quality, thereby increasing their risk of developing depression. Moreover, Amaral et al. (2018) also proved that perceived stress was positively associated with sleep difficulties. The findings of this study indicated that students who experienced more stress and negative emotions, and who engaged in repetitive negative thinking and maladaptive cognitive strategies, were more likely to report difficulties with sleep. These insights underscore the various impact of academic stress on student mental health and highlight the need for intervention to address stress, promote healthy coping mechanisms, and enhance overall well-being.

2.3 Suicidal Behaviours

According to De Leo et al. (2021), the term “suicide” is defined as a fatal act that intentionally initiated and completed by the individuals themselves. On the other hand, suicidal behaviours refer to any action that could potentially results in death. These behaviours encompass a spectrum of actions and thoughts related to the desire to end one’s life which generally classified into two main categories; suicidal ideation and suicidal attempts. Suicidal ideation which refers to thinking, considering or planning about suicide (Nationwide

Children's, 2024). Due to the absence of universally accepted definition of suicidal ideation, definition of suicidal ideation may be varied, with some definitions including considerations of suicide planning while others regard planning as a distinct stage (Harmer et al., 2023). Nonetheless, suicidal ideation still require attention as they indicate an immediate risk of self-inflicted death (Jobes & Joiner, 2019).

Research by Ren et al. (2018) highlighted that certain factor, such as pain tolerance and the complexity of suicide plans, correlate with both suicidal ideation and attempts. This study found that higher pain tolerance and more detailed suicide plans are associated with an increased likelihood of both ideation and attempts. In a meta-analysis, Franklin et al. (2017) identified previous experiences of suicidal ideation as a primary risk factor for future occurrences of such ideation, underscoring the persistent and recurring nature of suicidal thoughts. This study also noted that suicidal ideation is the third most significant predictor of future suicide, following past suicide attempts and mental hospitalizations. Additionally, Park et al. (2020) further identified additional risk factors, including stress, psychiatric hospitalization, early trauma, family history of suicide, and impulsiveness. Their study revealed a higher prevalence of suicidal thoughts among females compared to males.

On the other hand, suicide attempt can be defined as a non-fatal, self-directed harmful behaviour with the intent to die (Nationwide Children's, 2024). Additionally, suicidal attempts involve actions taken with the intent to end one's life but may not always result in death. According to *Oxford Textbook of Suicidology and Suicide Prevention*, Wasserman (2020), defined suicide as involving both a specific outcome (death) and an intention to die. Actions that are connected to suicidal contemplation but lack a clear intention to die were once referred to as “parasuicide” but are now more commonly termed "attempted suicide." Research by Rimkeviciene et al. (2015) found that many suicide attempts are not preceded by extensive planning or prolonged suicidal ideation, highlighting the spontaneous nature of these attempts.

Previous findings showed significant gender differences in suicidal behaviours among adolescents and young adults. Miranda-Mendizabal et al. (2019) found females showed a higher risk of suicide attempt with factors such as eating disorders, PTSD, bipolar disorder, and interpersonal issues. Meanwhile, males showed a higher risk for suicide death with risk factors including drug abuse, externalizing disorders, and access to means. Notably, both genders had common risk factors including previous mental or substance abuse disorders and exposure to interpersonal violence.

2.4 Academic Stress and Suicidal Behaviours

Several studies highlighted a connection between academic stress and the likelihood of suicidal behaviours. For instance, Obinna et al. (2021) found a moderately positive correlation between suicidal thoughts and academic stress. This result indicates that as students' levels of academic stress increased, their suicidal ideation also tended to rise. Notably, the study revealed that male students exhibited higher levels of suicidal ideation compared to female students, and fourth-year students had the highest prevalence. Similarly, Oginyi et al. (2018) identified a positive correlation between suicidal thoughts and perceived academic stress. Their research also highlighted socio-economic status as a significant predictor of suicidal ideation. Students facing financial difficulties or coming from economically disadvantaged backgrounds were found to be at a higher risk for suicidal thoughts.

Additionally, the study by Chen and Kuo (2020) found that high perceived stress is a major risk factor for suicidal behaviors, including suicidal ideation, plans, and attempts. Students who had high stress consistently over a year were significantly more likely to experience these behaviors compared to those with low stress. Moreover, this study also hope, optimism and resilience factors can mitigate the risk of suicidal behaviour. Furthermore, another study showed that academic stress were the significant predictor of predictors of suicidal thoughts and behaviors (STB) but only in female students (Macalli et al., 2021). Further research by Zhang et al. (2019) was in alignment with this study by showing that girls were more vulnerable to suicidal ideation compared to boys. The findings reported that girls experiencing higher levels of academic pressure can contribute to increased risk of suicidal ideation. This pressure might come from various sources such as high expectations from family, societal standards, and personal academic goals.

In contrast, not all studies consistently show a higher risk of suicide associated with academic stress. For example, Bathla et al. (2015) reported that undergraduate students experienced stress due to several academic stressors such as long teaching hours, high workload, high frequency of test and competition or fear of failure. Additionally, the level of anxiety and depression were reported to be mild to moderate, especially in final year students. Although they experienced significant stress, their suicidal ideation was shown to be consistently the same throughout the years.

2.5 Discussion of Related Theories/Model

The model that is used in this study was the stress-vulnerability model of suicidal ideation and behavior which was developed by Rich & Bonner (1987). This model was the first transactional that defined suicidal ideation and behavior as a multi-dimensional process influenced by the interaction of behavioral, social, emotional, cognitive, and environmental elements. (Bonner & Rich, 1987). According to this model, there was a predispositional basis for suicidal behavior that includes social-emotional alienation, cognitive distortions, and lack of adaptive resources. It was hypothesized that these elements contribute to a "coping vulnerability" in a person, making them more susceptible to suicidal thoughts during stressful times. Individuals were said to experience increased hopelessness as a result of ongoing stress exposure and an inability to cope with it, which eventually results in more severe forms of suicide behaviour (Rich & Bonner, 1987).

The theory used in this study was the Transactional Theory of Stress and Coping, developed by Lazarus & Folkman (1984). According to this theory, stress is a relationship between an individual and their surroundings that they perceive to be beyond their capacities and a threat to their wellbeing (Lazarus & Folkman, 1984b, p. 19). This theory has been evolved into a meta-theoretical framework of emotion and coping mechanisms, comprising causal antecedents, mediating processes, and outcomes. Additionally, Transactional Theory of Emotion and Coping highlighted that the person-environment relationship is mediated by cognitive appraisals and coping strategies (Lazarus & Folkman, 1987). Antecedents encompass individual variables such as commitment, while mediating processes involve the cognitive evaluations of situational demands and personal coping strategies. Stressful events and the subsequent coping mechanisms result in both short-term and long-term consequences. This model considers how individuals appraise and cope with stressors, including academic stress, and how these reactions affect mental health outcomes.

2.6 Summary

This chapter discusses the literature review related to academic stress and suicidal behaviours. Additionally, the theories and model used in this study also being explained in this chapter. Previous research findings contribute to the validation of the research questions, objectives, and hypothesis.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

In this chapter, the methodology to be employed in the study is outlined. The discussion encompasses various aspects, including the research design, population and sample, instrument, research ethics, data collection procedure, data analysis procedure and ended with summary. The methodology was the most important component in gaining accurate data and information so that the research objectives can be achieved.

3.1 Research Design

The research utilized a survey research design to examine the effects of academic stress on suicidal attempts among undergraduate students. Additionally, survey research design allows researchers to collect information from specific samples by using self-report questionnaires or interviews. Information gathered from the sample will be used to make inferences about the studied population. The research was conducted among undergraduate students at public universities in Malaysia. Hence, information will be collected from the undergraduate student's sample.

In this research, a cross-sectional study chosen as a research design for this study. This type of study was an observational in nature, analyzes data on one or more variables within a specific population at a particular moment in time. This type of study usually provides correlative insights about certain variables. In this study, academic stress and suicidal attempts were the independent and dependent variables. According to Olsen et al. (2004) information was gathered from an entire population or a subset. Additionally, the data was gathered from the undergraduate student's population in public universities in Malaysia. For this study, it was conducted by using quantitative methods in which by collecting and analyzing the numerical data, finding patterns, making prediction, examining causal relationship and generalize the result to a wider population (Bhandari, 2020).

3.2 Population and Sample

The sample size refers to the total number of participants or samples included in research (Institute for Work and Health, 2008). According to Nanjundeswaraswamy and Divakar (2021), a sample size that excessively small can lead to biased conclusions regarding the population, whereas an overly large sample size can overly complicate the study and potentially yield inaccurate results. Convenience sampling will be used in this study, and participants will be chosen based on their availability and willingness to participate. The questionnaires will be distributed from the participants that include undergraduate student in Malaysian public universities. The population size of the undergraduate students in Malaysia was 377,103 (Ministry of Higher Education, 2023). Based on Krejcie and Morgan (1970), the minimum sample size should be 384. However, due to the limited time, this research only manages to get 160 participants in total.

3.3 Instruments

The main instrument for data collection that was used in this study was questionnaires. In this research, there were two sets of questionnaires used to collect information, including Perception of Academic Stress (PAS) Scale, which to measure academic stress and Suicidal Behaviors Questionnaire-Revised (SBQ-R) which to assess suicidal attempts. Both of the questionnaires will be attached in a google form before being distributed to the participants to answer the questionnaires.

3.3.1 Perception of Academic Stress (PAS) Scale (Bedewy & Gabriel, 2015)

The Perception of Academic Stress (PAS) Scale is a self-report questionnaire that was developed by Bedewy and Gabriel, measures how students perceive their academic stress. The questionnaires consist of 18-item scales with five-point Likert scale (1 = strongly Agree, 5 = strongly Disagree). The questionnaires also have three primary subscales including the academic expectation, workload and examination and student's academic self-perceptions. The questionnaire employs reverse scoring items, where a lower score correspond to a higher level

of perceived academic stress. The scale demonstrates good reliability with a Cronbach's alpha of 0.7 for the overall score (Bedewy & Gabriel, 2015).

1	2	3	4	5
Strongly Agree	Slightly Agree	Neutral	Slightly Disagree	Strongly Disagree

Table 3.3.1 *Likert Scale for Perception of Academic Stress (PAS) Scale*

3.3.2 Suicide Behaviors Questionnaire-Revised (SBQ-R) (Osman et al., 2001)

The Suicide Behaviors Questionnaire- Revised (SBQ-R) serves as a self-administered tool or screening instrument for evaluating suicide risk. It encompasses four dimensions related to suicide: past suicide attempts, suicidal thoughts, threats of suicide, and the possibility of suicide attempts in the future. Each dimension was assessed risk by through a set of four items, with each item aimed at exploring different aspects of suicidal behaviors. The first question asks the responder if they have ever considered suicide or actually taken a suicide action. The second question assesses how often a person has considered suicide within the last 12 months. The third question measures for circumstances in which someone has threatened to commit suicide, while the last question examines the individual's subjective probability of committing suicide-related acts.

The total score of the SBQ-R ranges from three to 18, with higher scores represent a higher risk of suicidal behaviors. According to the authors, the recommended total cut-off scores indicative of high suicidal risk for undergraduates and high school samples were 7 and for psychiatric inpatient samples, they were 8 (Osman et al., 2001). [Refer to APPENDIX B for the full scoring]. Cronbach's alpha for internal consistency on the questionnaire was 0.80, indicating good reliability (Aloba et al., 2017).

Score Range	Suicide Risk Screening
Below 7	Low Suicidal Risk
7 and above	High Suicidal Risk

Table 3.3.2 (a) *SBQ-R Score Range*

Item 1: taps into <i>lifetime</i> suicide ideation and/or suicide attempts			
Selected response 1	Non-suicidal subgroup	1 point	
Selected response 2	Suicide Risk Ideation subgroup	2 points	
Selected response 3a or 3b	Suicide Plan subgroup	3 points	
Selected response 4a or 4b	Suicide Attempt subgroup	4 points	Total Points

Table 3.3.2 (b) SBQ-R Item 1 Scoring

3.4 Ethics of Research

In order to enhance the finding's reliability, it was imperative to ascertain the participants' willingness to engage in the research. Prior to completing the questionnaires, participants will be requested to complete an informed consent form via Google Form. The Google Form consist of three sections: demographic information, an academic stress instrument, and a suicidal attempt instrument. Given that participants' involvement influences their societal contribution, the researcher will safeguard their confidentiality throughout the data collection process to prevent any unauthorized disclosure of personal information. Additionally, the researcher should be mindful of participants' conditions and permit withdrawal from the study in case of discomfort or health issues. For this study, an ethics application has been submitted and currently pending for approval.

3.5 Data Collection Procedures

Data collection will involve distributing Google Forms containing questionnaires from the Perception of Academic Stress (PAS) Scale and the Suicidal Behaviors Question-Revised (SBQ-R) to the respondents. Prior to completing the Google form, participants will be provided with informed consent [Refer to APPENDIX C]. The Google form will be distributed via any telecommunication applications such as WhatsApps, Telegram, Instagram and Facebook. The respondents will answer the surveys on the Google Form according to their willingness and availability at that particular moment. In the Google Form, the question will require the respondents to answer based on their own preferences (Likert scale). It will take the respondents fewer than ten minutes to complete the Google Form's questions. The respondents will be given the same set of questions, and their different responses will be observed and

compared. Then, version 26 of the Statistical Package for Social Sciences (SPSS) will be used to do further analysis on the data.

3.6 Data Analysis Procedures

SPSS version 26.0 will be used to further interpret and analyse the data gathered from the Google Form.

3.6.1 Descriptive Data Analysis

Firstly, a descriptive data analysis will be carried out to summarize the data and transform raw data set into a concise and understandable summary by using measures of central tendency including mean, median and mode and also dispersion including range, variance, standard deviation. The first hypothesis, the prevalence of suicidal behaviours within year of study among undergraduate students, can be represented using measures like mean, median, and standard deviation.

3.6.2 Inferential Data Analysis

Next, inferential data analysis will be used after descriptive data analysis to test a hypothesis or check whether the data can be utilized to a wider population.

- **Pearson Correlation Coefficient**

The direction and strength of the linear connection between two continuous variables were assessed using this statistical test. The second hypothesis can be measured by using this test to investigate the correlation between two variables which were academic stress and suicidal behaviours among undergraduate students.

- **Multiple Regression Analysis**

The relationship between one dependent variable and plenty of independent variables will be examined by this statistical test. The third hypothesis will use this type of analysis to investigate the influence of multiple academic stress factors (e.g., academic expectation, workload and examination, student's academic self-perception) on the likelihood of suicidal behaviours.

Objectives	Hypothesis	Data Analysis
To examine the prevalence of suicidal attempts between year of study among undergraduate students.	There is a high prevalence of suicidal attempts in different year of study among undergraduate students.	Descriptive Data Analysis
To investigate the correlation between academic stress and suicidal behaviours among undergraduate students.	There is a significant correlation between academic stress and suicidal behaviors among undergraduate students.	Pearson's Correlation Coefficient
To identify the factors of academic stress that lead to suicidal behaviours among undergraduate students.	Academic stress (academic expectation, workload and examination, students' academic self-perception) contributes significantly to suicidal behaviours among undergraduate students.	Multiple Regression

Table 3.6.2 Summary of Technique Analysis

3.7 Summary

In summary, this chapter covered the methods applied to the data collecting and analysis in this study. The research methodology, including the sample, population, design, instruments, data collection, and analysis procedures was thoroughly explained in this chapter. It demonstrates a well-structured approach to investigating the research question in a reliable and valid manner.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.0 Introduction

The findings of the study were discussed in this chapter. The data collected from the survey using the Perceived Academic Stress (PAS) scale and the Suicide Behaviors Questionnaire-Revised (SBQ-R) was analyzed to identify significant correlations and predictors. The chapter also includes a discussion on the implications of the findings, supported by relevant literature.

4.1 Demographic Data

Table 4.1.1: *Frequency and Percentage of Demographic Information*

Demographic Information		Respondent (<i>n</i> =160)	
		Frequency	Percentage (%)
Gender	<i>Male</i>	27	16.9
	<i>Female</i>	133	83.1
Race	<i>Malay</i>	86	53.8
	<i>Chinese</i>	7	4.4
	<i>Indian</i>	3	1.9
	<i>Bumiputera Sarawak</i>	47	29.4
	<i>Bumiputera Sabah</i>	17	10.6
	<i>Others</i>	0	0
Age	<i>19-22 years old</i>	124	77.5
	<i>23-26 years old</i>	34	21.3
	<i>27-30 years old</i>	2	1.3
	<i>31 years old and above</i>	0	0
University	<i>UM - Universiti Malaya</i>	6	3.8
	<i>USM – Universiti Sains Malaysia</i>	2	1.3
	<i>UKM – Universiti Kebangsaan Malaysia</i>	2	1.3
	<i>UPM – Universiti Putra Malaysia</i>	2	1.3
	<i>UTM – Universiti Teknologi Malaysia</i>	1	0.6
	<i>UiTM – Universiti Teknologi MARA</i>	29	18.1

	<i>UiAM – Universiti Islam Malaysia</i>	1	0.6
	<i>UMS – Universiti Malaysia Sabah</i>	9	5.6
	<i>UNIMAS – Univesiti Malaysia Sarawak</i>	86	53.8
	<i>UTHM – Universiti Tun Hussein Onn Malaysia</i>	2	1.3
	<i>UTeM – Universiti Teknikal Malaysia Melaka</i>	3	1.9
	<i>Others</i>	17	10.6
CGPA	<i>2.49 and below</i>	6	3.8
	<i>2.50 – 2.99</i>	17	10.6
	<i>3.00 – 3.49</i>	59	36.9
	<i>3.50 – 4.00</i>	78	48.8
Year of Study	<i>Year 1</i>	17	10.6
	<i>Year 2</i>	57	35.6
	<i>Year 3</i>	75	46.9
	<i>Year 4</i>	9	5.6
	<i>Year 5</i>	2	1.3
Socioeconomic Status	<i>B40 (less than RM4849)</i>	78	48.8
	<i>M40 (RM4850 to RM10,959)</i>	69	43.1
	<i>T20 (RM 10,960 and above)</i>	13	8.1
		160	100

Based on the demographic table, the total number respondents that take part in this study was 160. Subsequently, the gender distribution of the participants indicates significant differences. Among the respondents, majority of them comprises female individuals, with 133 total respondents (83.1%). On the other hand, 27 respondents (16.9%) identified as male, representing a smaller percentage of the participants.

The study also demonstrated a diverse racial composition such as Malay, Chinese, Indian, Bumiputera Sarawak and Bumiputera Sabah. According to the table, the largest racial group among the respondents was Malay, accounting for 86 individuals (53.8%) of the total. Bumiputera Sarawak respondents represents the second largest racial group with 47 total individuals (29.4%). Next, Bumiputera Sabah comprises 17 total respondents (10.6%), followed by Chinese and Indian respondents which constitute seven individuals (4.4%) and

three individuals (1.9%), respectively. Additionally, there were no respondents from “Other” racial backgrounds in this sample.

The age distribution shows distinct disparities in this study. The largest age group represented in the study was 19-22 years old, accounting for 124 respondents (77.5%). The 23-26 age group constitute the total of 34 individuals (21.3%), while those aged 27-30 years old comprises two participants (1.3%).

In this study, respondents were from various universities but this study focuses more on undergraduate students from public universities. According to the table, the highest representation was from Universiti Malaysia (UNIMAS) which comprises 86 students (53.8%), followed by Universiti Teknologi MARA (UiTM) with 29 students (18.1%). Students from Universiti Malaysia Sabah constitute nine individuals (5.6%), while from Universiti Malaya (UM) has the total of six individuals (3.8%) and three students (1.9%) from Universiti Teknikal Malaysia Melaka (UTeM). Subsequently, four universities, Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia (UPM) and Universiti Tun Hussein Onn Malaysia (UTHM) that has the same total individual, which comprises two students (1.3%). Similarly, both Universiti Teknologi Malaysia (UTM) and Universiti Islam Antarabangsa Malaysia (UiAM) constitute only one student (0.6%). Additionally, students from university other than public universities was still included and fall under the “Others” category, which consist of 17 students (10.6%).

The distribution of Cumulative Grade Point Average (CGPA) among respondents were varied. The majority of the participants, comprising 78 students (48.8%), were having a CGPA between 3.50 and 4.00. Additionally, 59 students (36.9%) having CGPA scores that fall in the range of 3.00 and 3.49, while 17 students (10.6%) having CGPA scores that fall in the range of 2.50 and 2.99. Lastly, only a small number of participants, specifically six students (3.8%) fall within the CGPA range 2.49 and below.

The study also reveals a distinct pattern in the distribution of the students’ year of study. The majority of participants were in their third year of study, with the total of 75 students (46.9%), followed by the second-year students, comprising 57 students (35.6%) and first-year students, which consist of 17 students (10.6%). In addition, the fifth-year student represent the smallest proportion of the sample, with only two students (1.3%).

The distribution of respondents across different socioeconomic status (SES) shows a distinct disparity. Majority of the students, with total 78 individuals (48.8%) classified as B40

(earning less than RM4849). Additionally, there were a total of 69 individuals (43.1%) falls under the M40 category (earning RM4850 to RM10,959), Lastly, the T20 category (earning RM 10,960 and above) recorded as the smallest proportion of respondent, consisting 13 individuals (8.1%).

4.2 Inferential Data (Main Findings)

4.2.1 To Examine the Prevalence of Suicidal Attempts of Participants Between Year of Study

H_{A1}: There is a high prevalence of suicidal attempts between different year of study among undergraduate students.

Table 4.2.1: *Prevalence of Suicidal Subgroup Between Year of Study*

Year of Study	Respondent (n=160)									
	Suicidal Subgroup									
	Non-suicidal		Suicide Risk		Suicide Plan		Suicide Attempt		Total	
	n	%	n	%	n	%	n	%		%
Year 1	8	5.0	2	1.3	5	3.1	2	1.3	17	10.6
Year 2	20	12.5	16	10.0	16	10.0	5	3.1	57	35.6
Year 3	23	14.4	22	13.8	22	13.8	8	5.0	75	46.9
Year 4	2	1.3	4	2.5	3	1.9	0	0.0	9	5.6
Year 5	1	0.6	1	0.6	0	0.0	0	0.0	2	1.3
Total	54	33.8	45	28.1	46	28.7	15	9.4	160	100

The table presents the frequency and the percentage of suicidal subgroup across different year of study among undergraduate students. The data indicates a notable prevalence of suicidal subgroups across different years. Specifically, in Year 1, out of 17 respondents, two of them had attempted suicide (1.3%), while two were at suicide risk (1.3%) and five had a suicide plan (3.1%). Year 2 had 57 respondents, with five who had attempted suicide (3.1%) and 16 respondents both at suicide risk and suicide plan (10.0%). Year 3 reported the highest prevalence of suicide attempts, with eight respondents (5.0%), 22 at suicide risk (13.8%) and 22 with a suicide plan (13.8%). In contrast, Year 4, despite having no reported suicide attempts among nine respondents, four of them were at suicide risk (2.5%) and three with a suicide plan (1.9%). Finally, Year 5, with just two respondents (1.3% of the total), had one non-suicidal (0.6%) and one at suicide risk (0.6%), but no respondents had a suicide plan or had attempted suicide. However, among all four group, students with suicide attempt showed the lowest percentage (9.4%) with only 15 students across all years. **Therefore, the alternate hypothesis**

is rejected, there is a low prevalence of suicidal attempts between year of study among undergraduate students.

4.2.2 To Investigate the Correlation Between Academic Stress and Suicidal Behaviours

H_{A2}: There is a significant correlation between academic stress and suicidal behaviours among undergraduate students

Table 4.2.2: *Correlation Between Academic Stress and Suicidal Behaviour Among Undergraduate Students*

Correlations			
	Perceived Academic Stress (PAS) Scale	Suicide Behaviours Questionnaire-Revised (SBQ-R)	
Perceived Academic Stress (PAS) Scale	Pearson Correlation	1	-0.287**
	Sig. (2-tailed)		0.000
	N	160	160
Suicide Behaviours Questionnaire-Revised (SBQ-R)	Pearson Correlation	-0.287**	1
	Sig. (2-tailed)	0.000	
	N	160	160

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

Based on the table 4.2.2, the data showed there is **weak, negative correlation** between academic stress and suicidal behaviours ($r = -0.287$, $n = 160$, $p = 0.000 < 0.05$). Since $p < 0.05$; alternate hypothesis is accepted. **There is a significant but weak negative correlation between academic stress and suicidal behaviours.** This means that greater levels of perceived academic stress were associated with lower level of suicidal behaviours as measured by the SBQ-R. A negative correlation indicates that as academic stress increases, the frequency of suicidal behaviour tends to decrease.

4.2.3 To Identify the Factors of Academic Stress That Lead to Suicidal Behaviours

H_{A3}: Academic stress (academic expectation, workload and examination, students' academic self-perception) contributes significantly to suicidal behaviours among undergraduate students.

Table 4.2.3 (a): Model Summary Table

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.252 ^a	0.063	0.057	3.60420

a. Predictors: (Constant), Workload and Examinations

Table 4.2.3 (b): ANOVA Table

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	138.848	1	138.848	10.689	0.001 ^b
	Residual	2052.458	158	12.990		
	Total	2191.306	159			

a. Dependent Variable: Suicide Behaviors Questionnaire-Revised (SBQ-R)

b. Predictors: (Constant), Workload and Examinations

Table 4.2.3 (c): Coefficients Table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1.	(Constant)	11.323	1.290		8.775	0.000
	Workload and Examinations	-0.185	0.057	-0.252	-3.269	0.001

a. Dependent Variable: Suicide Behaviors Questionnaire-Revised (SBQ-R)

Table 4.2.3 (d): Excluded Variables Table

Excluded Variables ^a						
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Academic Expectations	-0.107 ^b	-1.349	0.179	-0.107	0.942
	Students' Academic Self Perceptions	-0.131 ^b	-1.525	0.129	-0.121	0.791

-
-
- a. Dependent Variable: Suicide Behaviors Questionnaire-Revised (SBQ-R)
 - b. Predictors in the Model: (Constant), Workload and Examination

Based on the Model Summary table, R^2 equal to 0.063. this means 6.3% of the change in total score Suicide Behaviors Questionnaire-Revised (SBQ-R) can be explained by the predictor or independent variable (in this case, Workload and Examination).

From the ANOVA table, p-value lower than 0.05 shows that we have enough evidence to accept alternative hypothesis. **Therefore, at least one of the factors are significant in predicting total score SBQ-R, which is Workload and Examination factor.**

Based on the coefficient table, variable Workload and Examination with p-value lower than 0.05 shows that it was statistically significant to predict SBQ-R.

Variables rejected (Excluded Variables) cannot be used because they were not related to SBQ-R score. For Academic Expectations factor, $p = 0.179$, hence not significant. For Students' Academic Self Perceptions factor, $p = 0.129$, hence not significant.

Conclusion: Out of three variables (Workload and Examinations, Academic Expectations, and Students' Academic Self Perceptions), only one (Workload and Examinations) could be used to predict SBQ-R score where Workload and Examination explains 6.3% changes in score. The regression model predicted approximately 6.3% of variances on SBQ-R scores, $R^2 = 0.063$, $F(1, 158) = 10.689$, $p = 0.001$ [obtained from ANOVA table].

In summary, this result indicates that students who have academic stress that related to workload and examination will be more likely to develop suicidal behaviours. Therefore, workload and examination factor were the predictor of suicidal behaviours among the undergraduate students.

4.2.4 Summary of the Findings

Table 4.2.4: *Summary of the Findings*

Objective	Hypothesis	Findings
1. To examine the prevalence of suicidal attempts between year of study among undergraduate students.	H _{A1} : There is a high prevalence of suicidal attempts between different year of study among undergraduate students.	Alternate hypothesis rejected. There is a low prevalence of suicidal attempts between different year of study among undergraduate students.
2. To investigate the correlation between academic stress and suicidal behaviours among undergraduate students.	H _{A2} : There is a significant correlation between academic stress and suicidal behaviours among undergraduate students	Alternate hypothesis accepted. There is a significant but weak negative correlation between academic stress and suicidal behaviours among undergraduate students
3. To identify the factors of academic stress that lead to suicidal behaviours among undergraduate students.	H _{A3} : Academic stress (academic expectation, workload and examination, students' academic self-perception) contributes significantly to suicidal behaviours among undergraduate students.	Alternate hypothesis accepted. Academic stress related to workload and examination contributes significantly to suicidal behaviours among undergraduate students.

4.3 DISCUSSION

4.3.1 To Examine the Prevalence of Suicidal Attempts Between Year of Study

H_{A1}: There is a high prevalence of suicidal attempts between different year of study among undergraduate students.

The first hypothesis was to examine whether the prevalence of suicidal attempts between year of study among undergraduate students was high. For this research hypothesis, alternate hypothesis was rejected. This study found that there was a low prevalence of suicidal attempts between year of study among undergraduate students. Despite the high levels of suicidal risk and planning across all years, the actual suicide attempt prevalence rate remains relatively low at 9.4%. This suggests that while many students were at risk, there were factors that might help prevent these thoughts from turning into actions. An article by Owusu-Ansah et al. (2020) examining the prevalence of suicidal behaviour among college students supported this finding whereby it reported only 6.3 percents of them have attempted suicide with subjective wellbeing as a protecting factor. Moreover, the findings of this study also consistent with research conducted by Sivertsen et al. (2019) on the prevalence of non-suicidal self-harm and suicide attempts among college students who found that the overall prevalence rate of suicidal attempts was relatively low with only 4.2 percent compared to current study.

Despite high levels of suicidal risk and planning, the low rate of suicide attempts among undergraduate students can be attributable to a number of protective factors and intervention that mitigate the progression from suicidal ideation to attempts. One critical protective factor was the availability and accessibility of mental health resources on campus. Universities increasingly recognize the importance of mental health services and previous study also suggested to implement a variety of support mechanisms, such as mental health awareness programs and support service (Harris et al., 2022). For instances, study has shown an increased rates of utilization of the mental health services in the US universities over the past ten years (Lipson et al., 2019). These services provide students with the necessary support to cope with stress and mental health issues, reducing the likelihood of suicidal attempts. Additionally, Wolitzky-Taylor et al. (2019) proved that there was a decreased in the number of suicidal thoughts and behaviours among at-risk student who participated in suicide prevention programs. This underscores the importance of mental health services and support systems within universities.

Furthermore, the role of social support cannot be understated. Strong social connections with family, friends, and peers can serve as a protective barrier against suicidal behaviours. Studies have shown that students who received support from their parents can reduce the risk of non-suicidal self-injury (NSSI). Also, study by Madjar et al. (2018) have reported that teacher, peer and parental support was associated with the decrease levels of suicidal attitudes. These supportive relationships were crucial in mitigating the risk of suicidal behaviours among students as it can provide support emotionally, practical help, and a feeling of belonging, in which all were essential during stressful period. Moreover, another factor contributing to the low prevalence of suicidal attempts was the role of subjective well-being. Suh et al. (2021) highlighted that improved levels of subjective well-being can reduce the likelihood to engage in suicidal ideation among the community.

The current study also illustrated that Year 3 students showed the highest prevalence of suicidal behaviours, with 5.0% attempting suicide. This was in contrast to findings from Rasheduzzaman et al. (2022), who reported a higher prevalence of suicidal attempts (9.6%) among fourth-year students. There were several factors that could explain the elevated risk among Year 3 students. One critical factor was the increased academic pressure and workload that students face as they progress through their studies. Research also consistently shown that academic stress was a significant predictor of mental health issues among university students (Barbayannis, 2022; Deng, 2022; Yan et al., 2018; Zhu et al., 2021). In their third year, students were often engaged in more challenging coursework, preparing for major exams, and may also be involved in internships or job searches, all of which contribute to heightened stress levels. This aligns with findings from Jevons and Lindsay (2018), which highlighted that middle-year university students experience more stress due to financial difficulties, family/personal issues, and mental health challenges compared to first-year students. These stresses might as well contribute to the risk of suicidal behaviours among Year 3 students.

In conclusion, while the overall prevalence of suicidal attempts among undergraduate students was low, the higher prevalence rate among Year 3 students indicates the need for targeted interventions. Universities should prioritize providing comprehensive mental health resources and fostering a supportive environment to help students overcome the challenges of their academic journey. Additional research is needed to examine the specific stressors and

protective factors affecting different year of study to develop more tailored and effective prevention strategies.

4.3.2 To Investigate the Correlation Between Academic Stress and Suicidal Behaviours

H_{A2}: There is a significant correlation between academic stress and suicidal behaviours among undergraduate students

The second hypothesis was to investigate the correlation between academic stress and suicidal behaviours among undergraduate students. Pearson's Correlation test has been used for this research hypothesis. The results showed that the alternate hypothesis was accepted, indicating a significant, albeit weak, negative correlation occurred between academic stress and suicidal behaviour among undergraduate students. This hypothesis was in alignment with the past research that studied the relationship between academic stress and suicidal behaviour. Studies had reported a significant relationship between academic stress and suicidal behaviours although the direction and strength of the correlation can vary. For example, Mandias (2022) discovered a moderately strong and negative correlation between academic stress and suicidal behaviour among nursing students. This past research was in alignment with the current study that showed negative correlation between academic stress and suicidal behaviours.

One possible explanation for this unexpected negative correlation was that students experiencing high academic stress might engage more actively in coping mechanisms, which can reduce the risk of suicidal behaviours. Students who were better equipped with coping mechanisms, such as problem-solving skills and emotional regulation, may be less likely to exhibit suicidal behaviours even under high stress. Ying et al. (2020) found that youth assets and regulatory emotional self-efficacy can significantly reduce suicidal risk in adolescents experiencing high academic stress. Moreover, Neacsiu et al. (2017) study on the connection between emotions and suicidal behaviour revealed that those who have made suicide attempts typically exhibit higher levels of emotion dysregulation as well as issues with emotional clarity and impulsivity. Similarly, Gysin-Maillart et al. (2019) stated that dysfunctional coping strategies, including denial and distraction allow individuals to distract themselves and disrupt the suicidal mode. These findings indicate that interventions focused on enhancing coping skills and emotional resilience could be effective in reducing suicidal behaviours among students.

Another perspective to consider was the role of resilience and psychological well-being in moderating the relationship between academic stress and suicidal behaviours. According to Okechukwu et al. (2022), resilience serves as a moderating role in reducing the tendency of

academic stress that would lead to suicidal ideation. Meanwhile, other study highlighted that students who exhibit high levels of resilience also tend to have high levels of optimism and overall psychological well-being (Zaheer et al., 2022). This finding suggested that resilience and optimism contribute positively to students' mental health in which can lessen the suicidal behaviours.

Despite many research that support the current findings, some studies suggests that the relationship between stress and suicidal behaviours was not straightforward. A study by Chen et al. (2023) found that academic stress and school bullying have a significantly associated with both suicide attempts and non-suicidal self-injury among Chinese elementary school students, with depressive symptoms mediating the relationship. The study suggested to implement strategies on reducing the academic pressure and addressing negative emotion such as depress and anxiety to prevent self-harm behaviours. Additionally, past research by Hirsch et al. (2019) illustrated that perceived stress was directly related to suicidal behaviour among college students but its direct effect can be further exacerbated by the presence of mental health stigma.

To sum up, while the current study supports the hypothesis that there was a weak and negative correlation between academic stress and suicidal behaviours among undergraduate students it was important to take into account the complex nature of this relationship. Enhancing the protective factors such as coping mechanisms, resilience and optimism, and addressing mental health stigma were crucial steps in mitigating the risk of suicidal behaviours among students.

4.3.3 To Identify the Factors of Academic Stress That Lead to Suicidal Behaviours

H_{A3}: Academic stress factors contribute significantly to suicidal behaviours among undergraduate students.

The third hypothesis was to identify the factors of academic stress that lead to suicidal attempts among undergraduate students. Multiple Regression test has been used for this research hypothesis. The dominant factor that contributes significantly to suicidal behaviour was workload and examination. This finding aligns with existing research that emphasizes the impact of academic stress on mental health outcomes. For instance, Uyanne (2022) revealed that academic stress, caused by workloads, difficulty in time management, and difficult courses, were linked to suicidal ideation among undergraduate students in Nigeria. Similarly, a study on the relationship between undergraduates' academic stress and their likelihood of having suicidal thoughts further supported the current findings in which the study revealed that stress related to examination and study significantly predicted suicidal ideation among students (Nkwuda et al., 2020).

Firstly, the heavy workload associated with academic programs can overwhelm students, leading to chronic stress and burnout. A meta-analysis conducted by Seo et al. (2021) found that several factors such as burnout, stress and academic difficulty were significantly associated with suicidal ideation among medical students. This analysis pinpointed high workloads and professional duties as significant sources of burnout, reinforcing the current findings that stress from heavy workload significantly predicts suicidal behaviours. Further supporting this, the Transactional Model of Stress and Coping proposed by Lazarus and Folkman (1984) provides a theoretical framework for understanding how students perceive and respond to academic stressors. According to this model, the perception of stress occurs when individuals believe a situation was demanding or beyond limits, leading to psychological distress. This was particularly relevant in academic setting where heavy workload and examination pressures were often perceived as overwhelming (Leslie et al., 2021), thereby triggering stress responses that can escalate into more severe mental health issues, including suicidal ideation and behaviours.

Another theoretical perspective also further justifies the current findings. The Job Demand-Resources (JD-R) model, burnout and other negative effects can occur if job demands such as, workload and time pressures, were not counterbalanced by sufficient resources

(Bakker & Demerouti, 2007). In the academic context, this model implies that, students may get overwhelmed by the demanding nature of their coursework and exams, especially if they lack of sufficient support systems or coping mechanisms. For instance, Brooke et al. (2020) reported that students experiencing stress and burnout from their coursework had utilized a positive problem-focused coping strategies such as exercise. This study suggested to explore the optimal coping strategies to mitigate academic stress and burnout among student, which might reduce the likelihood of suicidal behaviours.

Additionally, examinations also further exacerbate this stress. The significant risks associated with exams can trigger intense anxiety and fear of failure. This exam-related stress was not limited to the period of the examinations themselves but can start long before and persist afterwards, affecting students' mental health over extended periods. Physiologically, this prolonged stress can lead to symptoms such as migraine (Desouky et al., 2019), sleep disturbances (Campbell et al., 2018), and weakened immune system (Seiler et al., 2019), making students more susceptible to illness during crucial academic periods. Psychologically, the persistent worry about exams can result in heightened levels of anxiety and depression, further impairing students' ability to perform well in academic (Abu Ruz et al., 2018).

Several studies found that most students experience stress from various sources including test anxiety (Zheng et al., 2023), assignments (Majrashi et al., 2021) and fear of failure in school (Gamal Khalifa, 2021). Additionally, high achievers reported higher stress levels and suicidal thoughts, underscoring the need for effective stress management among students (Arun et al., 2017). Moreover, the competitive academic environment also further exacerbates these stressors, as students often competed against each other for top grades and future opportunities. The pressure to perform well in a competitive academic environment, especially for high achievers will lead them to feel the intense pressure to maintain their performance, thereby increasing the suicidal rates (Rindels, 2021).

In summary, the academic stress related to workload and examinations plays a crucial role in contributing to suicidal behaviours among undergraduate students, The pressure to achieve academic expectations, the high risks of examinations and the competitive academic environment all contribute to significant mental health issues. These factors can create a stressful environment that can lead to severe psychological distress and increase risk of suicidal behaviours. To reduce the negative effects of academic stress on students' mental health, it is

crucial to address these issues through better support systems, mental health resources and stress management programs.

4.4 CONCLUSION

In conclusion, this chapter explored the prevalence of suicidal attempts among undergraduate students, the correlation between academic stress and suicidal behaviours and also the predictor of academic stress that contribute to suicidal behaviours. These findings highlight the need for robust mental health support and the promotion of resilience and coping strategies to reduce suicidal behaviors among students.

CHAPTER FIVE

LIMITATION, IMPLICATION, RECOMMENDATION AND CONCLUSION

5.0 Introduction

This chapter address the limitation and implications of the current study, and provide recommendation for future research and interventions. The chapter concludes with a summary of the study's key contributions and potential impact on academic stress and suicidal behaviours among undergraduate students.

5.1 Limitations of Study

The first limitations of this study was the sample size and representativeness. This research only managed to get 160 participants which was below the ideal sample size. Acquiring a large group of undergraduate students was challenging due to the limited time and it might have the potential biases toward a towards certain demographic and institution. For instance, Universiti Malaysia Sarawak (UNIMAS) comprises the largest number of populations in this study, thus the sample may be biased toward that population. Consequently, the sample size may not accurately reflect all undergraduate students across different universities. Other than that, since this study only focuses on the undergraduate students, generalizing the findings to the other student's categories such as, pre-university students and post-graduate students, was difficult.

Besides that, another limitation of this study was the potential for self-report bias among the participants. This bias can arise from various factors such as such as social desirability bias, where participants may report what they believe was socially acceptable rather than their true experiences and memory recall issues, leading to inaccuracies in recalling past events or feelings. These biases can lead to errors or inaccuracies in the data, which could affect the study's outcomes and conclusions.

Additionally, focusing on academic stress as a sole factor contributing to suicidal behaviours among students presents a limitation. While academic stress was indeed significant, recognizing other factors that might contribute to suicidal behaviours also important, which include social, familial, mental health and environmental factors. By exclusively emphasizing

academic stress, the study may overlook or downplay the impact of these other factors, resulting in a less comprehensive understanding of student's mental health and suicide risk.

Lastly, this study also solely emphasizes on identifying at-risk students but does not specifically discuss or propose interventions measures based on the findings. Further research was needed to be done on prevention of the suicidal behaviours among the students. While identifying at-risk students was crucial, the absence of intervention strategies in the study limits its practical application for addressing the issue of suicidal behaviours among students. Hence, further research is needed to explore and develop effective prevention measures aimed at reducing the incidence of suicidal behaviours among undergraduate students.

5.2 Implications of Study

The findings of this study have significant implications for university lecturers, mental health professionals, and future research. One of the implications of this study was to raise awareness about the effect of academic stress on the mental health. The results of this study highlight the effect of academic stress on students' mental health, including the risk of suicidal behaviours. Raising awareness about this issue was crucial for creating a supportive educational environment and educate students, faculty, and parents about the academic stress and its potential consequences. Therefore, increased awareness on these issues can foster a culture where mental health is prioritized, and students feel empowered to seek help when needed.

Furthermore, the insights gained from this study provide a valuable information for future research aimed at developing targeted interventions to mitigate academic stress and its associated mental health risks. Future studies can use these findings to explore specific stressors unique to different student populations and academic fields. Hence, by identifying the stressors and understanding how they can affect mental health, researchers can design tailored interventions that address the needs of diverse student groups.

Lastly, the study underscores the critical need for comprehensive mental health resources and support systems within universities. Universities need to recognize the importance of mental health services as a key to student success and well-being. This may involve increasing the accessibility and availability of existing mental health resources, such

as therapeutic services and peer support groups. Universities should also consider implementing proactive measures, such as mental health screenings and regular check-ins, to identify students at risk before crises occur. Thus, this holistic approach ensures that mental health support is accessible, effective and embedded in the university culture.

5.3 Recommendations

For the first recommendation, future research can implement stratified sampling techniques to ensure a proportional representation of different institution within the sample. This involves dividing the population into subgroups such as universities or demographic categories and then randomly selecting participants from each subgroup to achieve a balanced representation. Additionally, future study can also consider comparative analysis that compares findings across different students' categories, including pre-university and post-graduate students.

Besides that, a mixed-method approach using quantitative and qualitative design is recommended to address the second limitation. Quantitative surveys can provide data on the prevalence and frequency of the academic stress and suicidal attempts while qualitative surveys such as interview can explore the participants' experiences more in-depth and cross validate their self-reported responses. This approach can provide richer insights and help identify discrepancies or inconsistencies in self-reporting.

Next, future research can also utilize a comprehensive assessment tool that encompass a wide range of factors contributing to suicidal behaviours. These tools should include dimensions related to social, familial, mental health and environmental factors, in addition to academic stress. Consequently, this approach can provide researchers a holistic understanding of the student well-being and its influences on their suicidal behaviours.

Lastly, future studies can implement early intervention programs that target at-risk students identified through screening processes. Researchers can offer various intervention such as counseling or psychotherapy to address underlying issues contributing to suicidal attempts. These interventions can help tracks students' progress and changes in risk levels over time.

5.4 Conclusion

In conclusion, this study highlighted the significant impact of academic stress, particularly from workload and examinations, on suicidal behaviours among undergraduate students. Despite limitations like sample size, self-report bias, and a narrow focus on academic stress, the findings underscore the need for increased awareness, comprehensive mental health resources, and targeted interventions in universities. Future research should adopt more representative sampling, mixed-method approaches, and broader assessment tools to gain a holistic understanding of student well-being. By addressing these issues, educational institutions can better support students' mental health and reduce the risk of suicidal behaviours, promoting a healthier academic environment.

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APPENDIX A

RAW SPSS OUTPUTS

Year_of_Study * Suicidal_Subgroup Crosstabulation

			Suicidal_Subgroup				Total
			Non-suicidal	Suicide Risk	Suicide Plan	Suicide Attempt	
Year_of_Study	Year 1	Count	8	2	5	2	17
		% within Year_of_Study	47.1%	11.8%	29.4%	11.8%	100.0%
		% within Suicidal_Subgroup	14.8%	4.4%	10.9%	13.3%	10.6%
		% of Total	5.0%	1.3%	3.1%	1.3%	10.6%
	Year 2	Count	20	16	16	5	57
		% within Year_of_Study	35.1%	28.1%	28.1%	8.8%	100.0%
		% within Suicidal_Subgroup	37.0%	35.6%	34.8%	33.3%	35.6%
		% of Total	12.5%	10.0%	10.0%	3.1%	35.6%
	Year 3	Count	23	22	22	8	75
		% within Year_of_Study	30.7%	29.3%	29.3%	10.7%	100.0%
		% within Suicidal_Subgroup	42.6%	48.9%	47.8%	53.3%	46.9%
		% of Total	14.4%	13.8%	13.8%	5.0%	46.9%
	Year 4	Count	2	4	3	0	9
		% within Year_of_Study	22.2%	44.4%	33.3%	0.0%	100.0%
		% within Suicidal_Subgroup	3.7%	8.9%	6.5%	0.0%	5.6%
		% of Total	1.3%	2.5%	1.9%	0.0%	5.6%
	Year 5	Count	1	1	0	0	2
		% within Year_of_Study	50.0%	50.0%	0.0%	0.0%	100.0%
		% within Suicidal_Subgroup	1.9%	2.2%	0.0%	0.0%	1.3%
		% of Total	0.6%	0.6%	0.0%	0.0%	1.3%
	Total	Count	54	45	46	15	160
		% within Year_of_Study	33.8%	28.1%	28.7%	9.4%	100.0%
		% within Suicidal_Subgroup	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	33.8%	28.1%	28.7%	9.4%	100.0%

Correlations

		Sum_PASS	Total_SBQR
Sum_PASS	Pearson Correlation	1	-.287**
	Sig. (2-tailed)		.000
	N	160	160
Total_SBQR	Pearson Correlation	-.287**	1
	Sig. (2-tailed)	.000	
	N	160	160

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

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.252 ^a	.063	.057	3.60420

a. Predictors: (Constant), Workload_And_Examinations

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	138.848	1	138.848	10.689	.001 ^b
	Residual	2052.458	158	12.990		
	Total	2191.306	159			

a. Dependent Variable: Total_SBQR

b. Predictors: (Constant), Workload_And_Examinations

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.323	1.290		8.775	.000
	Workload_And_Examinations	-.185	.057	-.252	-3.269	.001

a. Dependent Variable: Total_SBQR

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Academic_Expectations	-.107 ^b	-1.349	.179	-.107	.942
	Students_Academic_Self_Perceptions	-.131 ^b	-1.525	.129	-.121	.791

a. Dependent Variable: Total_SBQR

b. Predictors in the Model: (Constant), Workload_And_Examinations

APPENDIX B

MATERIALS/INSTRUMENT

The Perception of Academic Stress (PAS) Scale

The following questions ask about your thoughts and feelings towards the classes you are currently taking. Please choose from the following options to indicate how much you agree with each statement:

1 = Strongly Agree 2 = Slightly Agree 3 = Neutral 4 = Slightly Disagree 5 = Strongly Disagree

1.	Competition with my peers for grades is quite intense.	1	2	3	4	5
2.	My teachers are critical of my academic performance.	1	2	3	4	5
3.	Teachers have unrealistic expectations of me.	1	2	3	4	5
4.	The unrealistic expectations of my parents stress me out.	1	2	3	4	5
5.	The time allocated to classes and academic work is enough.	1	2	3	4	5
6.	The size of the curriculum (workload) is excessive.	1	2	3	4	5
7.	I believe that the amount of work assignments is too much.	1	2	3	4	5
8.	I am unable to catch up if I get behind on my work.	1	2	3	4	5
9.	I have enough time to relax after work.	1	2	3	4	5
10.	Exam questions are usually difficult.	1	2	3	4	5
11.	Exam times are too short to complete the answers.	1	2	3	4	5
12.	Exam times are very stressful to me.	1	2	3	4	5
13.	I am confident that I will be a successful student.	1	2	3	4	5
14.	I am confident that I will be successful in my future career.	1	2	3	4	5
15.	I can make academic decisions easily.	1	2	3	4	5
16.	I fear of failing classes this year.	1	2	3	4	5
17.	I think that my worry about exams is a weakness of mine.	1	2	3	4	5
18.	Even if I pass my exams, I am worried about getting a job.	1	2	3	4	5

Scoring: Reverse score items 1-5 in which 1 = Strongly Disagree and 5 = Strongly Agree. The lower the score, the higher the level of perceived academic stress

The Suicide Behaviors Questionnaire-Revised (SBQ-R) - Overview

The SBQ-R has 4 items, each tapping a different dimension of suicidality:

- Item 1 taps into lifetime suicide ideation and/or suicide attempt.
- Item 2 assesses the frequency of suicidal ideation over the past twelve months.
- Item 3 assesses the threat of suicide attempt.
- Item 4 evaluates self-reported likelihood of suicidal behavior in the future.

Clinical Utility

Due to the wording of the four SBQ-R items, a broad range of information is obtained in a very brief administration. Responses can be used to identify at-risk individuals and specific risk behaviors.

Scoring

See scoring guideline on following page.

Psychometric Properties ¹			
	Cutoff score	Sensitivity	Specificity
Adult General Population	≥7	93%	95%
Adult Psychiatric Inpatients	≥8	80%	91%

SBQ-R – Scoring

Item 1: taps into <i>lifetime</i> suicide ideation and/or suicide attempts			
Selected response 1	Non-suicidal subgroup	1 point	
Selected response 2	Suicide Risk Ideation subgroup	2 points	
Selected response 3a or 3b	Suicide Plan subgroup	3 points	
Selected response 4a or 4b	Suicide Attempt subgroup	4 points	
			Total Points
Item 2: assesses the <i>frequency</i> of suicidal ideation over the past 12 months			
Selected Response:	Never	1 point	
	Rarely (1 time)	2 points	
	Sometimes (2 times)	3 points	
	Often (2-3 times)	4 points	
	Very Often (5 or more times)	5 points	Total Points
Item 3: taps into <i>threat</i> of suicide attempt			
Selected response 1		1 point	
Selected response 2		2 points	
Selected response 3a or 3b		3 points	Total Points
Item 4: evaluates <i>self-reported likelihood</i> of suicidal behaviour in the future			
Selected Response:	Never	0 point	
	No chance at all	1 point	
	Rather unlikely	2 points	
	Unlikely	3 points	
	Likely	4 points	
	Rather likely	5 points	
	Very likely	6 points	Total Points
Sum all the scores circled/checked by the respondents. The total score should range 3-18.			
			Total Score

AUC = Area Under Receiver Operating Characteristic Curve; the area measures discrimination, that is, the ability of the test to correctly classify this with and without the risk. [.90-1.0 = Excellent; .80-.90 = Good; .70-.80 = Fair; .60-.70 = Poor]				
	Sensitivity	Specificity	PPV	AUC
Item 1: a cutoff score of ≥ 2				
• Validation Reference: Adult Inpatient	0.80	0.97	0.95	0.92
• Validation References: Undergraduate College	1.00	1.00	1.00	1.00
Total SBQ-R: a cutoff score of ≥ 7				
• Validation References: Undergraduate College	0.93	0.95	0.70	0.96
Total SBQ-R: a cutoff score of ≥ 8				
• Validation References: Adult Inpatient	0.80	0.91	0.87	0.89

©Osman et al (1999)

SBQ-R Suicide Behaviors Questionnaire-Revised

Patient Name _____ Date of Visit _____

Instructions: Please check the number beside the statement or phrase that best applies to you.

1. Have you ever thought about or attempted to kill yourself? (check one only)
 - ☐ 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)
 - ☐ 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)
 - ☐ 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)

☐ 0. Never	☐ 4. Likely
☐ 1. No chance at all	☐ 5. Rather likely
☐ 2. Rather unlikely	☐ 6. Very likely
☐ 3. Unlikely	

APPENDIX C

GOOGLE FORMS

Exploring the Impact of Academic Stress on Suicidal Attempts Among Undergraduate Students

Greetings to all. I am Azra Zukrina Binti Naharudin (77876) year 3 Psychology student from Faculty of Cognitive Sciences and Human Development (FCSHD) of University Malaysia Sarawak (UNIMAS).

I'am currently conducting a Final Year Project (FYP) on **Exploring the Impact of Academic Stress On Suicidal Attempts Among Undergraduate Students**.

Purpose of the study: To explore the correlation between academic stress and suicidal attempts among undergraduate students.

The Questionnaires consists of four section:

Section A: Informed Consent

Section B: Demographic Information

Section C: Perceived Academic Stress (PAS) Scale

Section D: Suicide Behaviors Questionnaire-Revised (SBQ-R)

Please answer ALL the questions and it will take approximately 5 to 10 minutes to complete. All data collected will be kept strictly confidential, only be accessible to the research team and used for academic purpose only. Your cooperation and participation in responding to this questionnaire is much appreciated. Thank you.

If you have any inquiries or need further information, please feel free to contact us through:

 Email: 77876@siswa.unimas.my

 Phone no: 0107834113

* Indicates required question

Email *

☐ Record my email address with my response

Section A: Informed Consent

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

*

Title of Study: Exploring the Impact of Academic Stress on Suicidal Attempts Among Undergraduate Students

Tajuk kajian: Meneroka Kesan Tekanan Akademik Terhadap Percubaan Bunuh Diri Dalam Kalangan Pelajar Sarjana Muda

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.)

☐ I Agree

Section B: Demographic Information

Gender *

- ☐ Male
- ☐ Female

Race *

- ☐ Malay
- ☐ Chinese
- ☐ Indian
- ☐ Bumiputera Sarawak
- ☐ Bumiputera Sabah
- ☐ Other: _____

Age *

- ☐ 19 - 22 years old
- ☐ 23 - 26 years old
- ☐ 27 - 30 years old
- ☐ 31 years old and above

University *

Choose



CGPA *

- ☐ 3.50 - 4.00
- ☐ 3.00 - 3.49
- ☐ 2.50 - 2.99
- ☐ 2.49 and below

Year of Study *

- ☐ Year 1
- ☐ Year 2
- ☐ Year 3
- ☐ Year 4
- ☐ Year 5

Socioeconomic Status *

- ☐ B40 (less than RM4849)
- ☐ M40 (RM4850 to RM10,959)
- ☐ T20 (RM10,960 and above)