Are You Anxious? A Study of Malaysian University Students during the COVID-19 Pandemic

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ABSTRACT

Anxiety levels among university students have long been a public health concern. The COVID-19 outbreak, and lockdown have swept the entire world and exacerbated students' stress and anxiety. This study investigates the correlation between independent variables (such as perceived stress, domestic violence, low self-esteem, strained familial relationships, financial constraints, and the presence of chronic diseases) and the dependent variable (anxiety) among university students during the COVID-19 epidemic. The researchers also intend to find out its impacts and provide suggestions on overcoming this issue. A total of 150 students from Universiti Sains Malaysia (USM) participated in the online survey via Google Form. The findings indicate a positive association between perceived stress and low self-esteem with anxiety. Consequently, individuals experiencing anxiety may encounter reduced motivation, lower productivity, suicidal tendencies, or the expression of suicidal thoughts, leading to a deterioration in mental and physical well-being, as well as a negative impact on academic performance. To mitigate these effects, it is recommended that students engage in regular exercise, ensure sufficient sleep, seek professional assistance, strengthen social ties, and adopt stress management techniques. Following these suggestions can help students alleviate stress and enhance their self-esteem.

Keywords: Anxiety, COVID-19, Factors, Malaysia, University Students
INTRODUCTION

On 11 March 2020, the COVID-19 outbreak was declared a pandemic. The increasing number of COVID-19 infections and deaths leads to more attention from health care providers regarding psychological responses to the virus. The widespread consequences of the COVID-19 pandemic have significantly influenced various aspects of life (Liew, Liew, Lim, Lim, & Qonitah, 2022), including mental well-being, particularly in relation to anxiety. Globally, anxiety levels in the first year of this pandemic had grown by 25% (World Health Organization [WHO], 2022). The pandemic has brought numerous challenges to global higher education, affecting students and educators (Hu & Kee, 2022). The changes and restrictions imposed on people have been detrimental to their mental health (Xiong et al., 2020), including students who cannot attend university because of institutional closure. Learning from home has also led to mental issues for students, including depression, stress, and anxiety (Hu & Kee, 2022).

The pandemic has somehow impacted human psychological well-being (Anwar, Kee, Salman, & Jabeen, 2022). Millions of students have stayed indoors due to the pandemic and adapted to the new norm of remote learning at home, putting online learning at the forefront (Munir, Anwar & Kee, 2021; Fozeli, Sani, Mustafa, Khalid, & Chawla, 2022). Besides, the longer time spent on social media during the pandemic affected online users' psychological well-being (Anwar, Kee, & Ijaz, 2022). Most university students suffer from anxiety, a prevalent and debilitating mental health problem characterized by nervous anticipation regarding unpredictable and unavoidable future danger. Barlow (2002) defines anxiety as a persistent, unstoppable unpleasant, uncontrollable emotional state accompanied by high levels of alertness and physical symptoms of tension. Anxiety has numerous consequences, including impairing mental, intellectual, and social functioning (Eckberg, Pidgeon, & Magyar, 2017). For many students, this emotional burden can impact various aspects of their academic and personal lives, creating a formidable barrier to well-being and success. Recognizing the widespread prevalence of anxiety among university students highlights the urgent need for institutions to prioritize mental health support services, fostering environments that promote understanding, resilience, and effective coping mechanisms.

The significance of mental health to the well-being of individuals and the sustainability of nations has increasingly been recognized and therefore included as part of the Sustainable Development Goals (SDGs) (WHO, 2019). A high prevalence of psychological health disorders among university students has been identified as a major public health concern for university students across the world (Knapstad et al., 2019). Moreover, Kessler et al. (2007) claimed that the probability of experiencing common psychological problems increases throughout adolescence and peaks around age 25. Hence, this population is more susceptible to mental health problems (Kitzrow, 2003).

Students at university undergo a stressful phase of their lives because they transition from adolescence to adulthood. This critical transition period presents many challenges and demands for them. For instance, they need to balance academics and social obligations. At the same time, they are preparing for future careers and interacting with a wide range of people (Cleary, Walter, & Jackson, 2011). This situation exposed them to psychological distress and caused anxiety. Additionally, they are concerned about the health of their families and friends due to the outbreak (Brown & Kafka, 2020). This was an incredibly stressful for students because the changes were unprecedented, occurring simultaneously and intensely, particularly in the first few months following the pandemic.

Even though the COVID-19 pandemic is impacting university students, their mental responses are likely to differ based on their different family circumstances and level of self-esteem. Many anecdotes describe how COVID19 has affected students’ stress and
emotional well-being, but few current studies have explicitly examined university students' mental health since the outbreak (Lee, Jeong, & Kim, 2021). As a result, the aim of this research is to determine the factors that contribute to anxiety. This research explores the connection between various independent variables (including perceived stress, domestic violence, low self-esteem, challenging family relationships, financial limitations, and the existence of chronic diseases) and the dependent variable (anxiety) within the context of university students amid the COVID-19 pandemic. Moreover, the implications and recommendations to address this critical issue.

LITERATURE REVIEW

Perceived Stress
Perceived stress refers to a person's perceptions or feelings about the levels of pressure he is suffering at any certain moment or during a certain period (Phillips, 2013). Anxiety is a typical psychological and physiological reflex, but long-term exposure to high degrees of stress can have serious repercussions, such as the emergence of anxiety (Racic et al., 2017). According to the available studies, students' reported stress levels are high during the current epidemic (Awoke, Mamo, Abdu, & Terefe, 2021). Out of the five major stressors (physiological, social, environmental, psychological, and academic), academic and environmental stressors have the greatest impact on students' stress levels (Yikealo, Tareke, & Karvinen, 2018).

Academic stress, characterized by the pressures and demands associated with educational pursuits, appears to be a prominent factor influencing students' stress experiences. The challenges of meeting academic expectations, such as deadlines, exams, and the overall academic workload, can create a significant burden for students. Moreover, the shift to virtual or hybrid learning modalities during the epidemic may introduce additional stressors related to adapting to new technologies, online communication, and potential disruptions to the traditional learning environment.

Environmental stressors, encompassing the external factors in students' surroundings, also contribute significantly to heightened stress levels. The epidemic has introduced a myriad of environmental challenges, including concerns about health and safety, changes in living arrangements, and disruptions to daily routines. The uncertainties surrounding the future, economic implications, and the overall societal impact of the epidemic further compound these environmental stressors.

Domestic Violence
Domestic violence impacts individuals of different ages, gender groups, races, ethnicities, religions, and socioeconomic backgrounds in all communities (Women's Aid, 2015). The impact of domestic violence on victims' academic performance might be due to negative effects such as poor focus in class, poor learning abilities, low involvement, and absenteeism. Domestic violence has been linked to a number of problems, such as running away from home, anxiety, depression, and suicide. A previous study found that children who have experienced domestic violence may have detrimental consequences on their cognition, emotions, and behaviour, which might affect their academic performance in the future (Attalla, Amira, & Rome, 2020). Cognitively, children subjected to domestic violence may face challenges in areas such as attention, memory, and problem-solving skills. The persistent exposure to traumatic experiences can disrupt normal cognitive development, potentially hindering academic achievement as these children navigate the educational system. Emotional consequences manifest in a range of issues, including heightened anxiety, depression, and difficulties in forming healthy interpersonal relationships. The emotional toll of domestic violence may permeate various aspects of a child's life, influencing their overall emotional resilience and coping mechanisms.
Behavioral implications further underscore the pervasive impact of domestic violence, as children exposed to such situations may display maladaptive behaviors. These behaviors can encompass aggression, withdrawal, or other coping mechanisms that may hinder their social interactions and adjustment in various settings, including the academic environment. The cumulative effect of these cognitive, emotional, and behavioral consequences heightens the risk of compromised academic performance in the long term.

**Low Self-Esteem**

Low self-esteem occurs when individuals are doubtful of who and what they are worthy of. They frequently feel incompetent, abandoned, or unloved. They are often scared to make mistakes or cause someone to be upset (WebMD, 2022). According to a self-esteem study, people with low or high self-esteem might have emotional and social issues. Social anxiety, insecurity, and despair are all linked to low self-esteem (Firestone, 2019). Low self-esteem may be a susceptibility factor that predisposes a person to develop a mental health disorder. Low self-esteem may also be the outcome of mental health problems and their consequences.

In the context of the academic aspect and the challenges posed by the COVID-19 pandemic, the relationship between low self-esteem and mental health becomes particularly relevant. Low self-esteem can act as a susceptibility factor, potentially making individuals more prone to developing mental health disorders. When considering the disruptions and uncertainties introduced by the pandemic, it becomes crucial to explore how the academic environment, characterized by shifts to remote learning, social isolation, and uncertainties about the future, may contribute to or exacerbate low self-esteem among students. In the academic setting during the COVID-19 era, the challenges related to adapting to new learning modalities, potential disruptions in academic progress, and the overall stress and anxiety induced by the pandemic can contribute to mental health issues among students. These mental health challenges, if unaddressed, may then contribute to a negative feedback loop, further impacting self-esteem and academic performance.

**Unhappy Relationship with Family**

A dysfunctional family is one where individuals or groups engage in frequent conflict, rudeness, and in some situations, neglect or abuse, leading other family members to tolerate this behavior. Multiple 'internal' issues, like sibling rivalry, parent-child issues, family violence, psychiatric disorder, and single-parent families, as well as 'external' conflicts, including alcoholism or drug misuse, extramarital relationships can all contribute to a dysfunctional family. They may also have low self-esteem, which might interfere with their personal and working development (Khollam, 2021). Many young people mentioned tense family ties, and some believed that these issues had started or contributed to their anxiety and depression in the first place (Doyle, 2013).

The observation that many young people attribute their anxiety and depression to tense family ties holds particular significance in the context of the academic aspect and the challenges posed by the COVID-19 pandemic. As educational institutions grapple with adapting to remote learning, altered social dynamics, and increased stressors brought about by the pandemic, understanding the impact of family relationships on students' mental health becomes crucial.

The tense family ties mentioned by young individuals may serve as a potential precursor or contributing factor to mental health issues. In the academic sphere, the implications of strained family relationships can manifest in various ways, influencing students' emotional well-being and overall ability to engage effectively in their studies. The
challenges associated with remote learning, coupled with the potential lack of familial support, may exacerbate the mental health struggles faced by these students.

Moreover, the stressors induced by the COVID-19 pandemic, such as economic uncertainties, health concerns, and disruptions to daily routines, can further strain family dynamics. As a result, students may find themselves navigating academic responsibilities amidst heightened familial tension, potentially impacting their concentration, motivation, and overall academic performance.

**Financial Constraints**
The term "financial" typically relates to money issues or transactions of some size or importance. Meanwhile, constraint refers to something that restricts a person's range of actions or freedom (Cambridge Dictionary, 2019). According to the Merdeka Center's National Youth Survey 2021 report, 28.8% of those interviewed claimed financial constraints are their greatest concern (Ayamany, 2021).

Financial aid to students is an essential factor in the educational field, mainly at the tertiary educational institution level. Year after year, the total expense of bachelor and doctorate education has soared. Many students are anxious about student loan debts, admission costs, rent expenses, learning resources, and loss of employment and profession (Wahab & Othman, 2021).

In the academic realm, the financial burden on students can have profound implications. The heightened anxiety about educational expenses may negatively influence students' focus, motivation, and overall mental well-being, impacting their academic performance. Additionally, the economic disruptions resulting from the COVID-19 pandemic, such as job losses and financial uncertainties, exacerbate the financial strain on students, further intensifying their anxiety. The pandemic has intensified these concerns, with students facing unprecedented challenges in meeting educational expenses. The shift to remote learning, changes in employment opportunities, and the overall economic downturn have created additional stressors. The confluence of financial anxiety, academic pressures, and the uncertainties introduced by the pandemic underscores the need for comprehensive support systems within the educational sector.

**Presence of Chronic Diseases**
Chronic diseases are defined as illnesses that last for at least two years and necessitate ongoing medical care, limiting daily activities, or both. Malaysia is an unhealthy country, according to Health Minister Khairy Jamaluddin, since the number of individuals suffering from heart disease and obesity is significant. The minister also stated that comorbidities or chronic illnesses, generally called non-communicable diseases (NCDs), were the primary cause of mortality in Covid-19. The major causes of mortality and disability in the world are cancer, cardiovascular disease, chronic respiratory illness, stroke, kidney diseases, and diabetes (Poobalasingam, 2021).

A chronic disease increases the likelihood of getting anxiety. The intersection of chronic diseases, anxiety, and the academic landscape has gained particular significance amid the backdrop of the COVID-19 pandemic. As individuals with chronic diseases navigate the challenges imposed by their health conditions, the added layer of anxiety introduced by the global health crisis has created a complex interplay of factors. The uncertainties surrounding the pandemic, coupled with concerns about heightened health risks, exacerbate the stress and anxiety experienced by those managing chronic illnesses.

In the academic sphere, where the shift to remote learning and changes in the traditional learning environment has become the new norm, students with chronic diseases may encounter additional challenges. The adaptation to virtual learning modalities, potential
disruptions to healthcare routines, and the need for increased flexibility in academic accommodations become crucial considerations. The confluence of chronic diseases, anxiety, and the evolving academic landscape during COVID-19 necessitates a tailored and empathetic approach to support the well-being and academic success of affected individuals.

Anxiety
Anxiety is characterised by feelings of despair accompanied by negative thinking and physical changes including hypertension. Overthinking or worries are common among those who suffer from anxiety disorders. As a result of their worry, they may have bodily symptoms such as perspiration, shaking, nausea, or a rapid heart rate (American Psychological Association [APA], 2020). According to White Swan Foundation (2015), family background, stressful events, health issues, substance abuse, and personality variables are the most prevalent causes of anxiety disorders. According to Sundarasen et al. (2020), over 30% of them are anxious about the COVID-19 epidemic in their nation based on research on Malaysian university students. This statistic highlights the substantial impact of external stressors, such as a global health crisis, on the mental well-being of the student population. The anxiety surrounding the COVID-19 epidemic underscores the need for a nuanced approach to mental health support, taking into account the unique challenges posed by the current socio-environmental context.

Research Framework
The study's framework is depicted in Figure 1. The independent variables are perceived stress, domestic violence, low self-esteem, unhappy relationship with family, financial constraints, and the presence of chronic diseases. The study's dependent variable will be anxiety.

![Figure 1. The Research Model](image)

**Relationship Between Perceived Stress and Anxiety**
The development of stress disorders and depression tends to be more prevalent among university students (Othman, Ahmad, El Morr, & Ritvo, 2019). Kausar (2010) stated that university student variances in stress perception might explain university students’ different capacities to cope with stress. Increased stress sensitivity might be connected to moderate frustration, powerlessness, and anxiety (Mamo, Buttigieg, Vassalo, & Azzopardi, 2012). However, continuous exposure to stress is more likely to cause problems, such as anxiety disorders (Wiegner, Hange, Björkelund, & Ahlborg, 2015). The state anxiety level was more substantial in highly anxious students than in their low trait-anxious peers. This suggests that anxiety-prone university students will be more likely to have state anxiety in response to stressful conditions (Meijer, 2001). Moreover,
the pandemic that has led to rising unemployment and inequality has seriously affected the mental health of university students (Son, Hedge, Smith, Wang, & Sasangohar, 2020; Wilson et al., 2020). As such, the following hypothesis is formed.

H1: Perceived stress is positively related to anxiety.

**Relationship Between Domestic Violence and Anxiety**

Women are often the victims of domestic violence, which occurs in all ethnic and racial groups worldwide (Feroz, Jami, & Masood, 2015). Domestic violence can severely harm abused women's physical and emotional health (Malik, Munir, Ghani, & Ahmad, 2021). The kinds of violence that individuals experience include mental, physical, and sexual abuse (Honda et al., 2017). There is a high risk of poor psychiatric outcomes for violence victims regardless of the type of violence (Mohammadkhani et al., 2009). A study also found that women will experience more anxiety symptoms if they are the victims of intimate partner violence (IPV) (McCauley et al., 1995). University students from violent and abusive families may feel anxious and depressed, leading to consequences such as hard having a good relationship with people. The enduring impact of exposure to domestic violence can manifest in challenges related to forming positive and meaningful relationships with others. The emotional toll of such experiences may create barriers to interpersonal connections, hindering the development of healthy relationships. This not only underscores the profound and pervasive effects of familial violence on the psychological well-being of university students but also emphasizes the need for targeted interventions and support systems to help navigate the complexities of interpersonal interactions and foster a conducive environment for emotional well-being. Based on this discussion, the researchers hypothesize as follows.

H2: Domestic is positively related to anxiety.

**Relationship Between Low Self-Esteem and Anxiety**

University students may experience low self-esteem, increased stress, and anxiety due to exposure to new environments and responsibilities (Negovan & Bagana, 2011). According to Lane and O'Hara (1993), people with low self-esteem are more likely to compare themselves negatively to others. Hence, they will suffer more negative emotions than those with higher self-esteem (Murphy & Stapleton, 2015). Besides, the results of young people's behaviour and mental health are negatively influenced by low self-esteem (Keane & Loades, 2017). Low self-esteem has also been linked to anxiety symptoms (Ramón-Arbués et al., 2020), leading to reduced quality of life and suicidal ideation (Nguyen, Wright, Dedding, Pham, & Bunders, 2019). From these findings, the following hypothesis can be formed.

H3: Low self-esteem is positively related to anxiety.

**Relationship Between Unhappy Relationship with Family and Anxiety**

Bowlby (1977) theorizes that adult anxiety and depression may be caused by insecure attachments triggered by adverse childhood experiences. According to literature, antagonism between parents and children predicts anxiety and depression (Reitman & Asseff, 2010). Parent's and children's relationships have been identified as factors affecting anxiety in adulthood (Schimmenti & Bifulco, 2013), and parenting has been explicitly highlighted as a predictor. Examples of parenting practices that become predictive of anxiety include rejecting, critical, and controlling. When parents consistently practice harmful parenting methods and have poor parent-child relationships, adulthood symptoms can develop. Researchers have shown that developing emotionally supportive relationships with parents can help emerging adults cope with adjustment problems (Guan & Fuligni, 2015; Lindell, Killoren & Campione-Barr, 2020). As a result, the researchers formed the following hypothesis.
H4: Unhappy relationship with family is positively related to anxiety.

**Relationship Between Financial Constraint and Anxiety**

Individual income and mental health problems have been found to have a high correlation (Gresenz, Sturm, & Tang, 2001; Jenkins et al., 2008). According to Jenkins et al. (2008), socioeconomic characteristics and loans can influence the relationship between income and psychological health. Lifetime mental illness is more common in low-income homes (Sareen, Afifi, McMillan, & Asmundson, 2011). In general, low-income students relied more heavily on federal student loans for their education (Fenske, Porter, & DuBrock, 2000). Moreover, parental tension due to poor financial security, abrupt unemployment, family difficulties, or poor mental health among family members might aggravate a student's psychological well-being (Fisher et al., 2020). Thus, the researchers can come up with the following hypothesis.

H5: Financial constraint is positively related to anxiety.

**Relationship Between Presence of Chronic Diseases and Anxiety**

Numerous studies investigating anxiety have been done in recent years. Chronic disease patients often present with disruptions in their psychological and emotional states (Gerontoukou, Michaelidoy, Rekleiti, Saridi, & Souliotis, 2015). People may experience the intensity of the COVID-19 pandemic differently, resulting in varying consequences on their mental states, even though they are experiencing the same event. People can experience negative mental states if they perceive the pandemic as severe (Han, Zhan, Li, Xu, & Zhao, 2021). Indeed, social isolation can lead to anxiety and distress, contributing to a deteriorating mental state (Ahmed et al., 2020). This leads to the following hypothesis.

H6: The presence of chronic diseases is positively related to anxiety.

**RESEARCH METHOD**

**Sample and Procedure**

In this study, a quantitative descriptive approach was employed to systematically analyze and present numerical data, providing a detailed overview of the research findings. An online survey was conducted using Google Forms to understand more about the factors that cause anxiety among university students during the COVID-19 epidemic. Respondents could select from a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The researchers used social media channels including WhatsApp, Telegram, and Facebook to reach out to our targeted responders, USM students. The survey drew 150 responses from USM students. The data were analysed using IBM SPSS Statistics 27 descriptively and multiple regression analysis.

**Measures**

The questionnaire is broken down into three sections, they are demographic and background information, anxiety-causing factors, and anxiety among university students during the COVID-19 epidemic.

**Demographic and Background Information**

The demographics of the respondents were determined using single-statement items which included gender, ethnicity, age, education level, monthly household income, and living area.

**Factors that Cause Anxiety**
The researchers created a 22-item scale to assess the factors that cause anxiety among university students during the COVID-19 pandemic. The scale items were based on the perceived stress, domestic violence, low self-esteem, unhappy family relationship with family, financial constraint, and presence of chronic diseases.

**Anxiety**
A 4-item measure was used to assess anxiety among USM students during the COVID-19 outbreak. The scale items were ability to stop or control worrying, fearful about awful situations, irritability, and trouble relaxing. They were adopted from the Generalised Anxiety Disorder 7-item (GAD-7).

**RESULTS**

Table 1 summarises the profiles of the respondents. Females made up more than half of the respondents (53.3%). Around a third of the respondents were Chinese (37.7%). 30.0% of the respondents are aged 22. All respondents were from Generation Z. From the perspective of education level, majority of the respondents are bachelor's degree (88.0%). 59.3% of respondents are from the B40 monthly household income category, and 50.0% of respondents are living in town.

<table>
<thead>
<tr>
<th>Table 1. Respondent's Demography Summary (N=150)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
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<tr>
<td>Malay</td>
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<tr>
<td>Chinese</td>
</tr>
<tr>
<td>Indian</td>
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<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td>18</td>
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<tr>
<td>19</td>
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<tr>
<td>20</td>
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<td>23</td>
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<tr>
<td>24</td>
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<tr>
<td>25</td>
</tr>
<tr>
<td><strong>Age Categories</strong></td>
</tr>
<tr>
<td>Gen Z: Born: 1997 – 2012 (Age: 10 – 25)</td>
</tr>
<tr>
<td><strong>Educational Level</strong></td>
</tr>
<tr>
<td>Diploma</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
</tr>
<tr>
<td><strong>Monthly Household Income</strong></td>
</tr>
<tr>
<td>RM4,850 and below (B40)</td>
</tr>
<tr>
<td>RM4,851 – RM10,970 (M40)</td>
</tr>
<tr>
<td>RM10,971 and above (T20)</td>
</tr>
<tr>
<td><strong>Living Area</strong></td>
</tr>
<tr>
<td>City</td>
</tr>
<tr>
<td>Town</td>
</tr>
<tr>
<td>Rural</td>
</tr>
</tbody>
</table>
Table 2 presents descriptive statistics, reliability information, and zero-order correlations among study variables. All variables had good reliability ranging from 0.76 to 0.92.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Stress</td>
<td>0.904</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic Violence</td>
<td>0.398 ***</td>
<td>0.756</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Self-Esteem</td>
<td>0.728 ***</td>
<td>0.446 ***</td>
<td>0.904</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unhappy Relationship with Family</td>
<td>0.577 ***</td>
<td>0.631 ***</td>
<td>0.629 ***</td>
<td>0.923</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Constraint</td>
<td>0.645 ***</td>
<td>0.550 ***</td>
<td>0.655 ***</td>
<td>0.763 ***</td>
<td>0.788</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence of Chronic Diseases</td>
<td>0.503 ***</td>
<td>0.158</td>
<td>0.426 ***</td>
<td>0.417 ***</td>
<td>0.535 ***</td>
<td>0.916</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>0.763 ***</td>
<td>0.492 ***</td>
<td>0.758 ***</td>
<td>0.656 ***</td>
<td>0.688 ***</td>
<td>0.434 ***</td>
<td>0.888 ***</td>
</tr>
<tr>
<td>Number of Items</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Mean</td>
<td>4.128</td>
<td>2.358</td>
<td>3.707</td>
<td>3.376</td>
<td>3.818</td>
<td>4.360</td>
<td>3.935</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.850</td>
<td>0.903</td>
<td>1.050</td>
<td>1.461</td>
<td>0.988</td>
<td>0.894</td>
<td>0.947</td>
</tr>
</tbody>
</table>

Note. N = 150; *p < .05, **p < .01, ***p < .001. Diagonal entries indicate Cronbach's coefficients alpha

Table 3. Summary of Regression Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Stress</td>
<td>0.367***</td>
</tr>
<tr>
<td>Domestic Violence</td>
<td>0.068</td>
</tr>
<tr>
<td>Low Self-Esteem</td>
<td>0.308***</td>
</tr>
<tr>
<td>Unhappy Relationship with Family</td>
<td>0.110</td>
</tr>
<tr>
<td>Financial Constraint</td>
<td>0.133</td>
</tr>
<tr>
<td>Presence of Chronic Diseases</td>
<td>-0.010</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.694</td>
</tr>
<tr>
<td>F Value</td>
<td>57.370***</td>
</tr>
<tr>
<td>Durbin-Watson Statistic</td>
<td>2.300</td>
</tr>
</tbody>
</table>

Note: * p < 0.05; ** p < 0.01; *** p <0.001.

DISCUSSION

The researchers conducted a thorough examination using regression analysis to assess the formulated hypotheses. In Table 3, the study delineated the independent variables, including perceived stress, domestic violence, low self-esteem, an unhappy relationship with family, financial constraints, and the presence of chronic diseases, while anxiety served as the dependent variable. The outcomes of the analysis revealed a positive relationship between perceived stress and low self-esteem with anxiety. Specifically, anxiety exhibited positive connections with perceived stress and low self-esteem, as indicated by beta (β) values of 0.367 and 0.308, respectively. Consequently, the hypotheses H1 and H3 were substantiated.
The R² value, standing at 0.694, demonstrated that perceived stress and low self-esteem jointly accounted for 69.4 percent of the variance in anxiety. Notably, the researchers identified perceived stress, with a β value of 0.367, as the most influential factor affecting anxiety among university students in Malaysia. Following closely was low self-esteem, with a β value of 0.308. Conversely, domestic violence, an unhappy relationship with family, financial constraints, and the presence of chronic diseases did not exhibit a statistically significant impact on anxiety. Therefore, hypotheses H2, H4, H5, and H6 were not supported by the findings.

This research underscores the critical role of perceived stress and low self-esteem in understanding anxiety among university students in Malaysia. The robust statistical evidence provided by regression analysis enhances our comprehension of the factors contributing to anxiety, informing targeted interventions and support mechanisms. These results offer valuable insights for both academic and mental health professionals, facilitating the development of tailored strategies to address the most pertinent concerns and enhance the well-being of university students.

The summary of our hypothesized model can be found in Figure 2.

**Figure 2. The Hypothesized Model**

![Diagram showing the hypothesized model with arrows pointing from Perceived Stress, Domestic Violence, Low Self-esteem, Unhappy Relationship with Family, Financial Constraint, and Presence of Chronic Disease to Anxiety. The arrows indicate the strength of the relationship with β values: 0.367***, 0.068, 0.308***, 0.110, 0.133, and 0.010 respectively.]

Note: * p < 0.05; ** p < 0.01; *** p < 0.001.

The research findings above highlight the substantial impact of perceived stress and low self-esteem on anxiety among university students in Malaysia suggest several targeted strategies to support student well-being.

Firstly, the incorporation of stress management programs within the university curriculum could provide students with practical tools to cope with perceived stress. These programs, which may include workshops, seminars, or online resources, could focus on stress reduction techniques, time management, and resilience-building.

Strengthening mental health support services on campus is equally crucial. By providing accessible counseling services, both in-person and virtually, universities can help students navigate challenges related to low self-esteem and anxiety. Creating awareness campaigns about the availability of these services is important to encourage utilization.

Integrating components of well-being and mental health into the academic curriculum is another valuable suggestion. This could involve incorporating mindfulness practices, stress coping mechanisms, and self-esteem enhancement activities into relevant courses, fostering a holistic approach to education.
Recognizing the impact of an unhappy relationship with family, initiatives that promote social connections within the university community can be beneficial. Creating mentorship programs, peer support groups, or community-building events can help students establish positive relationships and a sense of belonging.

While financial constraints did not significantly influence anxiety in this study, providing financial literacy programs and offering targeted financial assistance may help alleviate stress related to economic concerns. Ensuring students are informed about available financial resources and support systems is crucial.

Given that chronic diseases were identified as a prominent factor, promoting health and wellness initiatives on campus becomes imperative. This could involve fitness programs, health education campaigns, and regular health check-ups to address and manage chronic health conditions.

Lastly, even though domestic violence did not emerge as a significant factor in anxiety, having crisis intervention plans and support mechanisms in place for students experiencing domestic violence is essential. Collaborating with external organizations and law enforcement to provide assistance and protection can contribute to a safer campus environment.

CONCLUSION

In conclusion, this research has delved into the intricate relationship between a myriad of independent variables—perceived stress, domestic violence, low self-esteem, unhappy family relationships, financial constraints, and the presence of chronic diseases—and the dependent variable, anxiety, among university students. The findings have illuminated a particularly noteworthy association between perceived stress, low self-esteem, and heightened anxiety levels.

The implications of these findings extend far beyond the academic realm, reaching into the broader aspects of students’ lives. The positive correlation between perceived stress and low self-esteem with anxiety underscores the potential impact on students’ motivation, productivity, mental and physical well-being, and academic performance. The identification of such consequences emphasizes the urgent need for comprehensive and targeted interventions to address the mental health challenges faced by students.

An essential implication of this research lies in the formulation of actionable suggestions for students grappling with anxiety. The recommendation to incorporate regular exercise, adequate sleep, seeking professional help, strengthening social connections, and practicing stress management aligns with a holistic approach to student well-being. These suggestions not only offer practical solutions for stress reduction but also emphasize the interconnectedness of physical, mental, and social well-being.

The essential value of this research lies in its potential to guide educational institutions and mental health professionals in the development of tailored support systems. By recognizing the specific stressors that significantly impact anxiety levels, institutions can implement targeted interventions that address the unique challenges faced by students. This, in turn, can contribute to a more resilient and thriving student community.

In summary, this research not only contributes valuable insights into the relationship between various stressors and anxiety among university students but also provides practical recommendations for mitigating the adverse effects. The implications extend to the development of holistic support systems, reinforcing the importance of a student-centric approach to mental health and well-being.
LIMITATION
Nonetheless, there are some limitations should be noted. Firstly, in comparison to normal survey-only research, the sample size for our interview survey was rather small. Secondly, since the sample was drawn from a specific university, the findings may not be applicable to other university students. In the future research, big-scale research involving a huge number of students may be carried out.

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DECLARATION OF CONFLICTING INTERESTS
The author(s) declare(s) that there is no conflict of interest.

REFERENCES


