IDENTIFYING POSSIBLE FACTORS THAT INFLUENCE MENTAL HEALTH AMONG PUBLIC UNIVERSITY STUDENTS IN MALAYSIA

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(Received 05th March 2025; revised 12th May 2025; accepted 20th May 2025)

Abstract. Mental health is an essential component of total health at all stages of life. It affects a person's personal and social life, including regulating their emotions and thoughts, coping with stress, engaging with people and making sensible decisions. In recent decades, mental health has been a prevalent health issue among students. Therefore, the purpose of this study is: (1) to identify the possible factors influencing student mental health in public universities, (2) to determine the most influential factor that affects mental health among public university students, and (3) to analyze relationship between identified factors with student mental health. This study employed a quantitative approach using survey questionnaires. A sample of 200 students from public universities in Malaysia returned and usable for data analysis. The data was analysed using Version 27 of the Statistical Package for the Social Sciences (SPSS). The results of this study found that the scores for the three factors indicated a tendency towards agreement on student mental health factors with academic pressure (Mean=3.20), financial distress (Mean=2.69), and social support (Mean=3.48). The findings of the study showed that academic pressure (r=.495, p p<.001), financial distress (r=.348, p<.001) and social support (r=−.235, p<.001) had a significant relationship between student mental health. Furthermore, multiple linear regression analysis was employed to predict students' mental health using the three independent variables. The findings revealed that the three factors accounted for 29.7% of the variance in predicting student mental health. Also, academic pressure found to be the most influential factor on mental health among public university students, followed by social support while financial distress had no relative influence. These findings suggest that educators and higher education institutions should establish standards to reduce excessive academic stress, such as offering flexible deadlines and a balanced workload distribution in order to improve student mental well-being.
Keywords: *mental health, public university, academic pressure, financial distress, social support*

Introduction

The World Health Organization (WHO) defines mental health as a condition that enables individuals to handle stress, reach their potential, and engage in society, while poor mental health can hinder relationships and performance. Depression, anxiety, and stress were acknowledged as prevalent, significant mental health problems with long-term impacts if left unaddressed. According to the WHO, it was reported that 4.4% of 10–14-year-olds and 5.5% of 15–19-year-olds experienced an anxiety disorder, while depression affected approximately 1.4% of adolescents aged 10 to 14 years and 3.5% of those aged 15 to 19 years. Public concerns over mental health among university students were on the rise. Entering higher education was a significant milestone in a young person's life. This phase often involved substantial changes and increased expectations about university life from students, their academic achievements, and the expectations of those around them. While life as a student was generally stated to be thrilling and empowering, it could also be stressful, perhaps leading to burnout, anxiety, and other mental health concerns. As students progressed to higher levels of education, they were

exposed to increasingly stressful situations such as tougher syllabi, challenging work assignments and projects, academic overload, pressure to thrive, competitiveness with classmates, limited free time, less time with relatives, and dealing with financial problems.

Generally, mental health could affect any student regardless of age, gender, religion, or program of study. Food service program encompassed all aspects of the food service organization, including culinary skills, menu planning, nutrition, food safety and sanitation, operations management, human resources, and marketing. Furthermore, this program also differed from the other three courses under the Faculty of Food Science and Technology because it emphasized hands-on experience in the kitchen, so students were required to take subjects that involved them entering the kitchen four times throughout eight semesters. Students spent long and irregular hours in the kitchen, leading to physical exhaustion from standing for long periods. They also needed to adapt to the fast-paced nature of kitchen work and perform efficiently under time constraints. These physical demands might have contributed to mental health issues among students. Students might have suffered from poor mental health for various reasons and due to the nature of their education. Therefore, this study identifies the key factors influencing mental health among public university students. Acknowledging the factors influencing mental health was crucial to developing effective interventions (WHO, 2024; Campbell et al., 2022; Asif et al., 2020; Kandasamy et al., 2020; Tosevski et al., 2010).

Review of literature

This chapter reviews the literature on previous research related to student mental health. It also discusses the key factors contributing to mental health issues among students, such as academic pressure, financial distress, and social support, which significantly impact their well-being.

Mental health

The Ministry of Health (MoH) has defined mental health as “an individual's, group's, and environment's ability to interact in a way that promotes subjective well-being and optimal functioning. It involves using cognitive, effective, and relational abilities to achieve individual and collective goals that are consistent with justice.” The World Health Organization (WHO), on the other hand defines mental health as a condition of complete physical, mental, and social well-being, rather than simply the absence of illness or infirmity (WHO, 2025).

Academic pressure

Academic pressure used to describe the tension a person might feel about tests or assignments, educational surroundings, being evaluated, and other academic-related concerns (Zhang et al., 2022). Eleftheriades et al. (2020) state that students are becoming more concerned with attaining a prestigious job and making a good salary, so they are stepping up their academic pursuits leading them to a lot more pressure. Long-term exposure to high levels of academic stress can cause a variety of problems, including anxiety, depression, insomnia, and physical discomfort, which can negatively impact college students' mental and physical health (Liu et al., 2024). According to Lee et al. (2021), university students' perceptions of academic stress vary depending on their

group. For example, female university students report higher levels of stress, compared to the male peers (Kecojevic et al., 2020; Evans et al., 2018). Wyatt et al. (2017) added the academic year of study influences levels of academic stress. Barbayannis et al. (2022) in their study discovered that second-year students reported the lowest psychological well-being, and the greatest academic-related distress compared to students in earlier years of study. Barbayannis also speculates that this might be the result of this group pursuing advanced coursework, handling more demanding coursework, and engaging with different majors. A study by Yang et al. (2021) found that the major daily challenges of students stem from academic pressure, including frequent study, writing papers, test preparation, and boring instructors. It also stated that this pressure often arises from the demands of exam preparation, competition among peers for grades, and the necessity to absorb extensive information within a limited timeframe. In addition, students were also anxious due to their professors' high expectations, including multiple tasks and strict deadlines (Sundarasen et al., 2020).

Financial distress

Financial distress can be defined as emotional stress associated with money issues. It varies from person to person and is an uncomfortable sense that one is incapable of satisfying financial demands, financing life's needs, and having enough money to make ends meet (Elfaki et al., 2023). Financial distress has been linked to students' mental, emotional, and cognitive performance and is regarded as one of the major stresses impacting university students (Cadaret and Bennett 2019; Jones et al. 2018). Kandasamy et al. (2020) stated in their study that students pursuing higher-level education often struggle to manage the burden of debts, which prompts them to look for alternate ways to obtain adequate financial aid to cover their expenses throughout the semester. Such circumstances can trigger stress and anxiety, potentially leading to mental health issues, especially when their families are also experiencing financial problems. Some students may receive loans to cover the cost of their studies. However, the payment amount received may not be enough to cover daily expenses when deducted by fees or other commitments. Omar et al. (2024) claimed that even though students do not have the same responsibilities as other people regarding monthly loan payments, their status as students forces them to pay their fees, home rent, and other necessities. According to Khoo and Farah (2021), many young adults start managing their finances for the first time when they start college or university, and they frequently have to balance both financial and academic responsibilities. Students can pursue tertiary education with study loans provided by the PTPTN and JPA for those with limited financial resources. However, students who received PTPTN loans stated that, probably because of the increased cost of living, the amount they were given was insufficient to cover their daily needs (Yusof, 2017). This was not shocking because the PTPTN's maximum loan amount was RM3500 per semester, whereas the JPA loans varied from RM5000 to RM6000 per semester (Khoo and Farah, 2021). Khoo and Farah (2021) also revealed that compared to students who received JPA loans and those who were personally sponsored by their parents, students who were getting PTPTN loans experienced greater levels of financial distress.

Social support

Social support is a type of social connection that can take many forms and can be a psychological and physical resource offered by a social network, such as friends, family, and/or coworkers (Buchwald, 2017). The coping aid provided by social support reduces the psychological effects of difficult life demands, increasing a person's sense of personal control and assisting them in maintaining good emotions (Morey et al., 2021). Insufficient social support has been linked to mental health issues, leading to increased stress levels. According to Shafiee and Mutalib (2020), support from family, friends, and community may greatly influence an individual. Without social support, students will experience loneliness and increased stress. The level of psychological well-being of university students has a direct impact on their capacity to overcome the many obstacles they confront nowadays. University students who are in a healthy psychological state are better able to invest in their professional growth and increase their level of social integration (Wei, 2022). Students who have their families' emotional support are more likely to succeed academically. Encouraging parents and kids to communicate effectively is essential because it enables open dialogue about stress, worry, and concerns (Amin et al., 2024). Harandi et al. (2017) noted that having healthy social interactions with family and friends reduces anxiety and fosters stability. Besides, through advice and the creation of a friendly atmosphere, lecturers are essential in promoting the mental health of university students.

Conceptual framework

The conceptual framework represents the research variables and the correlations to discover between them. The conceptual framework used in this study was based on previous research by Omar et al. (2024) as well as Kandasamy et al. (2020). This study employed a series of items to investigate the possible factors that influence mental health among public university students (*Figure 1*).

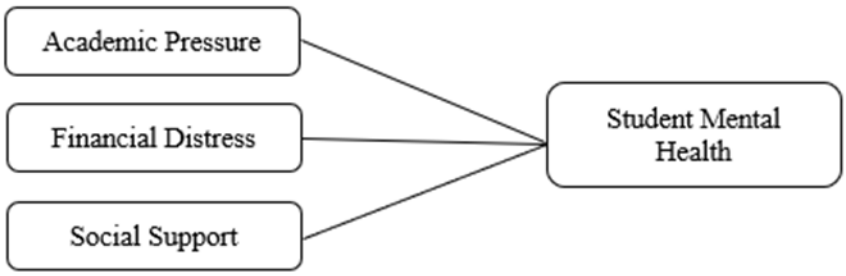

Figure 1. *The conceptual framework of factors that affect mental health among public university students.*

Materials and Methods

A research methodology describes the methods and approaches employed to locate and evaluate data of a certain study subject. It is a method for designing studies so that the chosen research tools can be used to achieve the research objectives (Sreekumar, 2023). This chapter comprises all subtopics of research design, target population, sampling plan, questionnaire structure, pilot test and data analysis. The methodology is crucial for producing accurate and reliable outcomes, as it directs the research process and guarantees that the investigation is carried out in a thorough and methodical way.

Research design

The type of research design used depends on the research question itself, the research objectives, and the resources available. In this study, a quantitative research approach was used, and a self-administered questionnaire was designed to obtain the data for this study. Quantitative research involves organized observation and detailed description of the features of the objects or events to find relationships between an independent variable and a dependent variable in a population (Mohajan, 2020). The term "quantitative" denotes the quantity of information acquired during a study, presented in a numerical or quantified format, typically supported by statistical analysis and often utilizing software tools. All the data collected for this research was key into a software system, Version 27 of the Statistical Package for Social Sciences (SPSS) to analyze. A pilot study also was conducted by collecting data of 30 respondents to examine the reliability of the research instruments. Then, some modifications of the research items were made to improve the survey quality and reliability before continuing with the actual data collecting process.

Population and sample size

The population is established according to the research goals and the characteristics or parameters investigated. The target population for this study was public university students in Malaysia, with a primary focus on Universiti Putra Malaysia (UPM), Universiti Teknologi MARA (UiTM) and Universiti Malaysia Kelantan (UMK) students, as these universities offer food service management programs. However, since the self-administered questionnaire was distributed online to all students, participation was not strictly limited to students from these universities, and responses may have included students from other public universities as well. According to Facts and Figures of Universiti Putra Malaysia (UPM), Universiti Teknologi MARA (UiTM) and Universiti Malaysia Kelantan (UMK), the total number of UPM students is 21302, UiTM students is 193760 and UMK students is 9000, making the total population for these three universities is 224,062. Krejcie and Morgan (1970) developed a table for estimating sample size for a given population for easy reference. Therefore, based on Krejcie and Morgan table, the total sample size for this population is 384.

Sampling plan

The sampling technique is crucial to ensuring quality research by aiding researchers in choosing more representative samples and extrapolating the research results (Golzar et al., 2022). In this study, the convenience sampling technique, a form of non-probability sampling was employed. Non-probability sampling involves the researcher selecting participants based on their discretion, referrals, or self-selection, rather than ensuring that every member of the target population has an equal chance of being included in the study (Stratton, 2021). Convenience sampling is the process of selecting a sample from a group of people easily accessible to the researcher (Adeoye, 2023). A total of 384 questionnaires were distributed to the respondents in this study. However, only 200 responses were returned and were usable for data analysis due to the time constraint and low responses rate. The response rate for this study is 52%. Therefore, the sample size used in this study is quite small in numbers due to the limitations that cannot be overcome.

Data collection

The data collection was carried out in early January 2025 until the end of the month. The process of data collecting was done starting with preparing a set of questionnaires. The questionnaire included in this study was adapted and adopted from the numerous previous studies. Next, 384 self-reported questionnaires have been distributed online and face-to-face to the respondents which students in public university. However, out of 384, only 200 set of questionnaires were returned and can be used for this study.

Questionnaire

The questionnaires used a close-ended questions, in which respondents' answers are limited to a predetermined set of responses. The primary language of the questionnaire is English, and it has been translated into Malay to aid and facilitate respondents' understanding. The questionnaire consists of three sections: Section A (Demographic profile of the students); Section B (Student mental health); and Section C (Factors influence mental health among public university students: academic pressure, financial distress, social support) (*Table 1*).

Table 1. *Summary of prior text study on academic pressure, financial distress, and social support.*

Sections	Sub-Sections	No. of Items	Measurement Items	Sources
Section A	Demographic Profile	6	Nominal and ordinal scale	Omar et al. (2024)
Section B	Student Mental Health	11	4-point Likert scale (0 = never, 1 = sometimes, 2 = often, 3 = always)	Mumenin et al. (2024)
Section C	Factors Influencing Student Mental Health: 1. Academic Pressure 2. Financial Distress 3. Social Support	30	5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree)	Omar et al. (2024); Zimet (2016); Archuleta et al. (2013); Shapiro and Burchell (2012); Ang and Huan (2006); Cohen et al. (1985)

Pilot test study

A pilot test study was conducted in September 2024 with a set of 30 questionnaires distributed to students from various public universities in Malaysia. The results obtained from the pilot test were analyzed using reliability analysis. Through the pilot test results, a few modifications on the research items were made to ensure the questionnaires are more reliable. The questionnaire was presented in both Bahasa Melayu and English to enhance respondents' understanding, particularly considering the potential participation of international students. All the questions were also in short and simple sentences to avoid the respondents from confusion and taking too much time to answer.

Data analysis

In this study, data collected from the survey was analyzed using several types of data analysis such as reliability analysis, descriptive analysis, multiple linear regression and Pearson's correlation. The process of analyzing this data was carried out using Statistical Packages for the Social Science (SPSS) version 27. Reliability is the process of determining if a measurement of variables may yield consistent findings and measurements under repeated circumstances (Bordens and Abbott, 2014). Cronbach's Alpha is one of the most widely used technique for assessing the reliability of research instruments. Descriptive statistics are specific techniques used to efficiently, logically,

and meaningfully calculate, characterize, and summarize research data that has been gathered (Vetter, 2017). It can be classified into measures of frequency, central tendency, and dispersion or variation. Multiple regression is a mathematical technique for simulating the relationship between several independent predictor variables and one dependent outcome variable (Marill, 2004). According to Nettleton (2014), the most often used approach for numerical variables is the Pearson correlation method, which assigns a value between 0 and 1, where 0 indicates no connection, 1 indicates total positive correlation, and -1 indicates total negative correlation. The following is how this is interpreted: two variables have a significant and positive link if their correlation value is 0.7.

Results and Discussion

Demographic profile of respondents

A total of 384 questionnaires utilising convenience sampling were distributed to the public university students. Out of 384 sets of questionnaires that were distributed, only 200 sets were successfully returned and are eligible for analysis in this study. The demographic analysis of the respondents' demographic profile includes gender, age, level of education, university, program and academic year (*Table 2*).

Table 2. *Demographic profile of respondents*.

Variables	Categories	Frequency (N)	Percentage (%)
Gender	Male	59	29
	Female	141	71
Age	19 and below	22	11
	20-24 years	169	84.5
	25-29 years	5	2.5
	30-34 years	2	1
	35-40 years	1	.5
	40 and above	1	.5
Level of education	Foundation/ Matriculation/ STPM	14	7
	Diploma	18	9
	Bachelor's Degree	161	80.5
	Master's Degree	5	2.5
	PhD	2	1
University	UPM	134	67
	UiTM	16	8
	UMK	3	1.5
	Others	47	23.5
Program	Food service	65	65.7
	Nonfood service	135	32.5
Academic year	First year	57	28.5
	Second year	15	7.5
	Third year	27	13.5
	Final year	90	45
	Others	11	5.5

Reliability analysis

Table 3 and *Table 4* shows the reliability analysis for pilot study and actual data collection in this research. This analysis was conducted to estimate the degree of consistency among the items that make up the instrument or scale. For this research, Cronbach's coefficient alpha was used to test the reliability of instruments used for dependent and independent variables. The Cronbach's alpha value for the questionnaire's accuracy should be at least 0.7, as it is deemed to be of low quality or weak. This reliability test can only be achieved through a pilot study. Therefore, the

pilot study was done to verify the questionnaire's validity and reliability, ensuring that it could be utilized for research. The 30 sets of questionnaires were distributed randomly among public university students for pilot study. From the pilot study, some changes have been made to improve the quality of the instrument used for actual data collection.

Table 3. *Reliability analysis for pilot study.*

Types of Variables	Total Number of Items	Cronbach's Alpha Values
Dependent Variable		
Student Mental Health	11	.636
Independent Variables		
Academic Pressure	10	.827
Financial Distress	10	.904
Social Support	10	.848

Table 4. *Reliability analysis for actual data collection.*

Types of Variables	Total Number of Items	Cronbach's Alpha Values
Dependent Variable		
Student Mental Health	8	.710
Independent Variables		
Academic Pressure	10	.798
Financial Distress	10	.902
Social Support	10	.776

Descriptive statistic analysis

Descriptive statistics analysis was used for summarizing, organizing and presenting the data set meaningfully. This part comes out with analysis by using the mean score and standard deviation for each dependent and independent variable. To study the factors that influence mental health among public university students, the mean score and standard deviation for each variable was disclosed in *Table 5*.

Table 5. *Descriptive statistics.*

Category	Mean	Median	Std. Deviation	Variance	Minimum	Maximum
Dependent Variable						
Student Mental Health	1.66	1.50	.482	.232	.75	3.00
Independent Variables						
Academic Pressure	3.20	3.20	.675	.455	1.10	5.00
Financial Distress	2.69	2.65	.865	.747	1.00	4.80
Social Support	3.48	3.50	.680	.463	1.60	5.00

Multiple linear regression analysis

Table 6 shows the summary of regression done in this study. The R value obtained was .545, signified a moderate relationship between student mental health and academic pressure, financial distress and social support. Then, R Square (R^2) value was .297. This indicated that 29.7% of variance in predicting student mental health was explained by the three independent variables used: academic pressure, financial distress and social support. *Table 7* shows the result of multiple linear regression of ANOVA analysis. The ANOVA analysis was used to test the overall significance of the regression. Therefore, the value of F is 27.553, with the p value of .001. Since p value is less than 0.05, the regression model fits the data well. Plus, this indicates that a statistically significant relationship exists between student mental health and factors influencing. *Table 8* shows

the multiple linear regression analysis on the three possible factors that influence student mental health in public universities. As a result, the variable of academic pressure and social support had a significant p value of .001 and .002, which are the values were less than the acceptable significant p value of 0.005. Since the p values for both variables were <.005, thus, this indicated that academic pressure and social support significantly influenced mental health among public university students. On the other hand, the p value obtained for financial distress was .134, greater than acceptable significant p value of 0.005. Since the p value of financial distress was <.005, the result indicated that financial distress did not significantly influence mental health among public university students. From the standardized coefficient value, academic pressure (6.539) was the most significant predictor that influenced students' mental health, followed by financial distress (1.503) and social support (-3.137). The mental health among students increased by .310 units for every one unit increase in academic pressure. Also, the mental health among students will increase by .058 for every one unit increased in financial distress. However, the mental health among students decreased by -.136 for every one unit increase in social support.

***Table 6**. Multiple linear regression of studied variables (Model summary).*

Model	R	R Square	Adjust R Square	Std. Error of The Estimate
1	.545[a]	.297	.286	.40718

Note: R square=.297; meaning that only 29.7% of variance in student mental health was explained by academic pressure, financial distress and social support; a. Predictors: (Constant), Academic Pressure, Financial Distress, Social Support.

***Table 7**. Result of multiple linear regression of ANOVA analysis.*

Model		Sum of square	df	Mean Square	F	Sig.
1	Regression	13.704	3	4.568	27.553	<.001[b]
	Residual	32.495	196	.166		
	Total	46.199	196			

Note: a. Dependent Variable: Student mental health; b. Predictors: (Constant): Academic pressure, financial distress, social support.

***Table 8**. Result of multiple linear regression analysis on possible factors of student mental health (Coefficients).*

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	.982	.217		4.534	<.001
	Academic Pressure	.310	.049	.435	6.359	<.001
	Financial Distress	.058	.039	.104	1.503	.134
	Social Support	-.136	.043	-.191	-3.137	.002

Note: Predictors: Academic pressure (t=6.359, p=<.001); Financial distress (t=1.503, p=.134); Social support (t=-3.137, p=.002).

Pearson correlation analysis

The Pearson correlation coefficient (r) measures the strength and direction of the relationship between two variables (*Table 9*). Based on the results above, Pearson's value for academic pressure and financial distress are .495 and .348 respectively. This means a positive relationship exists between academic pressure and student mental health, and between financial distress and student mental health. Besides, since the values of Pearson's for both independent variables are in the range of .30 -.40, this indicates that there is a moderate relationship between the independent variable and the dependent variable. However, Pearson's r value of social support is -.235, indicating

that there is a weak, negative relationship between social support and student mental health. Since the value of the correlation is negative, it means higher social support mitigates mental health issues among students. The Pearson correlation analysis also determines the significance of the relationship between independent variable and dependent variable. The significance of relationships is defined by sig-r value. Therefore, based on the table, the sig-r value of academic pressure, financial distress and social support are .001. Since the sig-r value is lower than 0.05, there is a significant relationship between academic pressure, financial distress and social support towards student mental health at 0.05 level of significance.

***Table 9**. Table of Pearson Correlation.*

Category		Student Mental Health	Academic Pressure	Financial Distress	Social Support
Student Mental Health	Pearson Correlation	1	.495**	.348**	-.235**
	Sig. (2-tailed)	-	<.001	<.001	<.001
	N	200	200	200	200
Academic Pressure	Pearson Correlation	.495**	1	.480**	-.056**
	Sig. (2-tailed)	<.001	-	<.001	.429**
	N	200	200	200	200
Financial Distress	Pearson Correlation	.348**	.480**	1	-.185**
	Sig. (2-tailed)	<.001	<.001	-	.009
	N	200	200	200	200
Social Support	Pearson Correlation	-.235**	-.056**	-.185**	1
	Sig. (2-tailed)	<.001	.429**	.009	-
	N	200	200	200	200

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

Conclusion

The study investigates the factors that affect mental health among public university students such as academic pressure, financial distress and social support. The findings show all variables of academic pressure, financial distress and social support had a significant relationship with student mental health, with the academic pressure being the most influenced factor to the mental health among public university students. This highlighted the need for policy and institutional adjustments to create a healthy academic environment that promotes academic achievement and mental wellness. However, this study is specifically applied among public university students but may not apply to private universities which can differ in terms of funding, student support services, class sizes, tuition costs, and campus amenities.. Future research is encouraged to compare public and private university students to explore broader patterns. Students in public universities may encounter different mental health difficulties than those in private universities.

Acknowledgement

This research is self-funded.

Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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