

THE RELATIONSHIP BETWEEN STATE OF MENTAL HEALTH AND FACTORS AFFECTING MENTAL HEALTH ON ACADEMIC PERFORMANCE

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Abstract

In March 2020, all educational institutions such as schools and universities were closed due to curb the spread of COVID-19 in Malaysia. Online learning has led to mental health issues among students that can affect their abilities and their academic performance. The aim of this study is to identify the relationship between mental health and academic performance among third-year students at UTHM. This study is using quantitative methods and questionnaires were distributed in order to collect the data. The study will develop valid and reliable scales in order to measure the factors in the relationship between mental health issues and academic performance among third-year students in UTHM. This study can provide many benefits both outside and within the institution, especially among students and universities. The sample size for this study is 375 respondents from undergraduate students in UTHM. The response rate for this research is 23.46%. All the data was collected and analyzed by using the Statistical Package for Science Social (SPSS). Based on the descriptive analysis results, the level of feeling sad and depressed of students is the lowest and the nominal factors that affect students' mental health are needed to do a part-time job due to financial difficulties of the family members. The level of mental health has no significant relationship with the effect on academic performance. While the factors that affect their mental health have a significant relationship with the effect on their academic performance. This research might be useful for future studies which will be focus on identifying the antecedent of the mental health and prevention methods solve the matter. The limitation of this research is the management of time and develop more relevant and valid questionnaires.

Keywords: Mental Health, Academic Performance, Covid-19.

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Introduction

Psychological problems have often been propaganda in mass media in recent years, and not only in one country and but also worldwide. Within the year, the trend of depression or other mental illnesses will increase especially during covid-19 situation. Mental health problem is caused by various factors which contribute to the stability of certain behaviors, and it can affect the academic performance of students (Bolinski, et al., 2020). University is the best time in life for many young adults. Depression, anxiety, and stress may also threaten these crucial years. Students will probably trigger several stressors that can test their abilities such as adaptation to a new environment, a balanced workload, new friendships, more self-sufficiency, and many other issues (Mirza, et. al 2021).

In Malaysia, the first case of COVID-19 has been discovered and has carried back 3 Tourists from China who were earlier in close touch in Singapore with an infected person (New Straits Time, 2020). In the late January 2020, they came to Malaysia for travelling and have received the treatment Sungai Buloh Hospital, Selangor, Malaysia. In March 2020, all educational institutions such as schools and universities were closed due to curb the spread Ness of covid-19 in Malaysia (New Straits Time, 2020). Closure of educational institutions and possible study extensions would probably disturb the daily works

and future plans of students. A student may have struggles with mental health because of academic requirements such as a university transition, requirements for a variety of tasks by professors, and essential competencies (Khalid et al., 2016). The restrictions would obviously lead to the psychological pressures of students whose facing online learning. Students will probably trigger several stressors that can test their abilities such as adaptation to a new environment, a balanced workload, new friendships, more self-sufficiency, and many other issues (Rohaiza, 2022).

Since the pandemic covid-19 outbreak, majority of people especially educational sector were forced to change their daily routines such as face to face learning. the transition to a new norm of life also has a psychological impact on human beings so that many people feel anxious, depressed, worried and afraid of being infected with this epidemic. Previous research by Al-Kumaim et al (2021) on mental health problems identify that majority of the young people may experience this problem. The government had to postpone face-to-face learning for all levels of students to curb the spread of this epidemic. Some university dealing with online distance learning for a long time to occupy in learning activities. Drastic change in learning method can impact students' lives and reduce their motivation in studies. This paper aims to study the relationship between factors that affecting mental health, mental health, and academic performance among undergraduate students in UTHM. Additionally, some recommendations were also being suggested to improve the academic performance among undergraduate students.

Literature Review

Mental Health

Mental health as psychological maturity described by personal and society opposition as maximum efficiency and satisfaction, including positive feedback and feelings about self and others. Mental health is the expression of emotion and symbolizes the ability to adapt to various pressures and demands of life (Ghani, 2013). The common mental health disorders that associate in students' life are anxiety, depression, and bipolar disorder (Nelson, 2019). Malaysian students cannot be well-regulated when faced with high academic stress. Furthermore, university students in Malaysia have a low level of mindfulness on their mental health condition (Ahmadi, 2014). In Malaysia, the major sources of stress among students are mostly difficulty in concentrating due to the presence of excessive information, the pressure of heavy workload, and examinations that cause harmful effects on their health and performance (Ching et al., 2012). Stress comes when internal and external stress combined crosses the individual resources to cope.

Academic performance

Academic performance means students performing their exams, which are the standard of students' performance, in school, college or university, such as their marks (Patiyal et al., 2018). Academic achievement means the ability and capability of students to accept and master the lessons learned at the university. In a word other, achievement can also be defined as the success achieved by the students' in examinations held at the university whether excellent, moderate, or weak (Macnamara, and Burgoyne, 2023). According to Narad and Abdullah (2016), academic performance consists of the acquired knowledge which is measured by teacher quality or by teaching aims by students and teachers over a specified period. These aims are assessed by regular review or test results. Honicke and Broadbent (2016), felt that a student can measure his academic performance and be observed within a certain time frame and it is consisting of evaluations received by a student in classes, class test, mid-semester exams, mock exams, and semester tests.

Previous studies

Due to pandemic, their sleeping habits, daily fitness routine and social interaction have given big influence in their daily life. Due to this, students feel less motivated to perform in their academic. Covid-19 has become the key challenges in education sectors. Most students in the study stated that they did not use their time systematically during the lockdown. (Kunal et al., 2021).

According to Adeoye-Agboola and Evans, (2015) there is a negative link between anxiety and the

students' achievement of grades. This study also mentions that the various methods of student assessment, with their favored learning process and class communications to lower their anxiety. Without confidence in learning session, it can affect students' academic performance. Shamsuddin et al. (2013) stated that the older students (age 20-24) had more depression than their younger students (age 18 to 19). It was because of the increased workload or assignments in the final year of studies that older students suffered higher levels of depression. Depression has occurred to 41.9% of students at public institutions in Malaysia.

Conceptual Framework

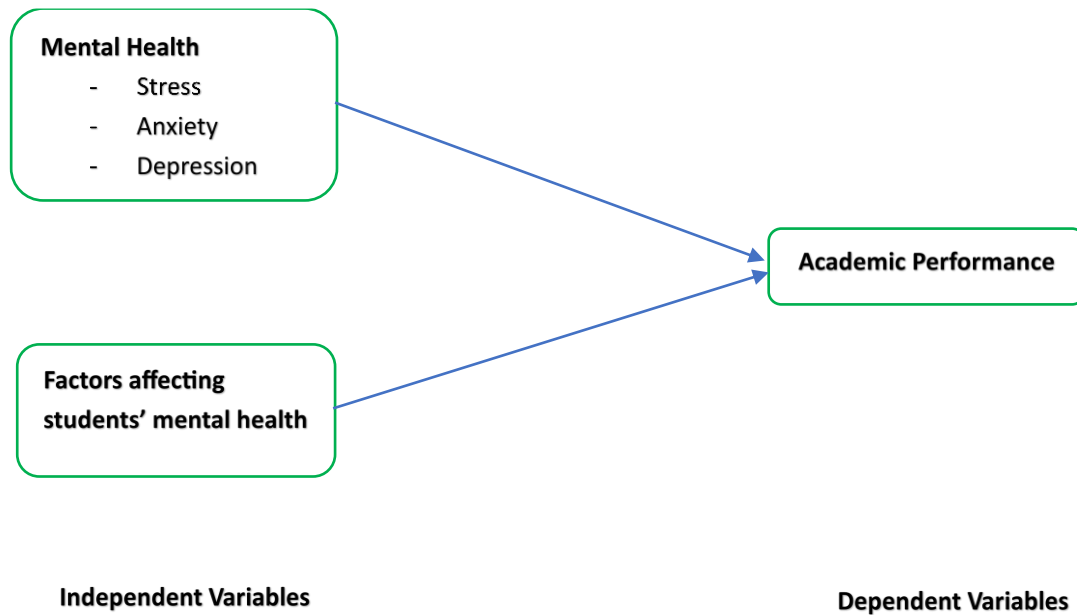


Figure 1. Conceptual Framework

Conceptual framework shows the relationship between the dependent variables and independent variable. The conceptual framework of this research is shown in Figure 1, Based on the model, the independent variable is the mental health and factors affecting mental health. For the state of mental health, it is including the stress, anxiety, and depression. The dependent variable is the academic performance of the third-year students.

Theory Approach: General Adaptation Syndrome Theory

High level education students often confronted with stress due to the workload or assignments from the lecturers, with stressful of college environment, problems with adaptation and academic performance (Kohn & Frazer, 1986). General Adaptation Syndrome Theory was introduced by Hans Selye (Healthline, 2018). This theory can be linked to the study when people must put off their daily activities due to movement control order by the government which lead to mental health problems.

Theory Approach: Conflict Theory

According to Chernoff (2013), conflict theories state that the education system reaffirms and maintains social inequalities arising from class, sex, race and ethnicity differences. Many students who belong to working families have to face assisting themselves home, helping the finances, poor studies and a family conflict.

Research Methodology

Research Design

According to Ahuja Ram (2010), research design provides requirements for data gathering and analysis so that significance to the research purpose is blended with economics and processes. Research designs are the plan, design and strategy and research so that the search issue and control variance are secured Hamdani, et al. (2023). This study is using quantitative approach to identify the factors that lead to mental health issues and its effects on students' academic performance. Questionnaires will be formed as a tool in order to collect the data.

Data collection

Primary data collection is rather costly and time-consuming. Primary data is a different, initial data collected directly from a source, such as observations, surveys, questionnaires, case studies and interviews based on his criteria (Bell, 2020). Questionnaires were made through Google Form method. The questionnaires were distributed to 100 respondents among the third-year students in UTHM through online platform. After the data was collected, they were keyed in through SPSS system in order to identify the relationship between independent variables and dependent variables.

Secondary analysis is an empirics exercise that follows the same basic principles of research as primary data studies and follows steps as any research method (Johnston, 2014). It is obtained by questionnaire, observation, focus group or thorough interviews directly from a primary source, while the first refers to data collected by someone else other than the user. In other words, secondary data refers to data collected for other purposes (Allen, 2017).

Data Analysis

In addition to several graphic analyses, descriptive statistics are a major aspect of all quantitative data analyses. Descriptive statistics are quite different from inferential statistics because they are more about the data displayed. The conversion of raw data to a form that makes it easy to understand and understand; the rearrange, arrange and manipulation of data for descriptive information (William, 2006). In this study, descriptive analysis is used to describe the profile of the respondent. The Cronbach alpha is the most common measure of inner consistency ("reliability"). It will most widely be used in survey/questionnaire that you have multiple Likert questions and want to evaluate if the scale is reliable. Normality testing is the supplementary to the graphical normality assessment.

Correlation the change of magnitude of 1 variable in correlated data therefore is associated either in the same or in the other way with a change in magnitude of another variable. This coefficient is generally used when variables are of quantitative nature, that is, ratio or interval scale variables. Pilot study reflects all the procedures of the major study and validates the study's feasibility by evaluating the participants' inclusion and exclusion criteria, the storage and testing of tools used in the study and the training of researchers and assistants. The data has been analyzed by using Statistical Package for Social Science software.

Table 1. Reliability test

Variables	Cronbach's Alpha	N of Items	Interpretation
Independent Variables			
Level of mental health	0.945	4	Good
Factors that effect of mental health	0.772	9	Acceptable
Dependent Variables			
Academic performance	0.887	8	Good

Table 1 shows the demographic analysis in this research. The value of Cronbach's Alpha for the factors that affect students' mental health is 0.772 which is it considered as acceptable. The value of Cronbach

Alpha for the effects of mental health on students’ academic performance is 0.887 which the interpretation is considered as good.

Table 2. Demographic Analysis

Variables	Details	Frequency	Percentage (%)
Genders	Male	32	36.4
	Female	56	63.6
Faculties	Faculty of Technology Management and Business	29	33.0
	Faculty of Technical and vocational Education	16	18.2
	Faculty of Civil Engineering and Built Environment	18	20.5
	Faculty of Electric and Electronic Engineering	13	14.8
	Faculty of Mechanical and Manufacturing Engineering	4	4.5
	Faculty of Computer Science and Information Technology	8	9.1
Year	First Year	12	13.6
	Second Year	25	28.4
	Third Year	21	23.9
	Fourth Year	30	34.1
CGPA	Below 1.50	0	0
	1.50 – 1.99	3	3.4
	2.00 – 2.50	8	9.1
	2.51 – 3.00	11	12.5
	3.01 – 3.50	40	45.5
	3.51 – 4.00	26	29.5

Table 2 shows the result of demographic analysis in this research. An approximate percentage of 64% from the total 88 respondent come from female while the remaining percentage reflected the lowest involvement of respondents came from male participants. As for the demographics of faculties among the respondents, the highest percentage showed that 33% or 29 respondents came from Faculty of Technology Management and Business followed by Faculty of Civil Engineering and Built Environment (20.5%, 18 respondents), Faculty of Technical and vocational Education (18.2%, 16 respondents), Faculty of Electric and Electronic Engineering (14.8%, 13 respondents), Faculty of Computer Science and Information Technology (9.1%, 8 respondents) and Faculty of Mechanical and Manufacturing Engineering with the percentage of 4.5% which placed the them as the lowest percentage of respondents in this research. Table 2 also shows the demographic result from the perspective of year of studies among respondents. Majority of the respondents came from fourth year of study with the percentage of 34.1% while respondents from first year is the lowest respondent who participated in this study with the percentage value of 13.6 %. In addition, demographic analysis in table 2 also showed that majority of the respondents who answered the survey in this research came from the respondents who possessed CGPA of 3.01 – 3.50.

Table 3. Descriptive Analysis

Variables	Total Average / Mean	Interpretation
Independent Variables		
Level of mental health	2.94	Medium
Factors that effect of mental health	3.31	High
Dependent Variables		
Academic performance	3.40	High

Table 3 shows the result of descriptive analysis for this research. The table separated the variable into independent variables and dependent variables. There two factors that fall under the independent variables; level of mental health and factors that affect of mental health. The level of students’ mental health showed a medium tendency level of range with the mean value of 2.94. Thus, the independent variable on the factors that affect students’ mental health is at high tendency level of range with the mean value of 3.31. So, the effect of students’ mental health on academic performance is at high tendency level of range.

Table 4. Shapiro-Wilk Analysis

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Mean students’ mental health	.114	88	.007	.970	88	.039
Mean Factors that affect students’ mental health	.094	88	.052	.976	88	.099
Mean effect of mental health on students’ academic performance	.102	88	.024	.982	88	.262

Prior performing inferential analysis, researcher have conducted Shapiro-Wilk analysis as shown in Table 4 to assess the normality of the result in this study, which will support the decisions to use either Spearman or Pearson Correlation analysis. Based on the result above, the significant value for the level of students’ mental health is 0.039 which is lower than 0.05, which mean that the data is considered as normal. The significance value for factors that affect students’ mental health is 0.099 which means that the data is not normal. The effect of students’ mental health on academic performance is 0.262 which is greater than 0.05, thus, the data is not normal. Based on all of the findings, this research will proceed with Spearman correlation analysis.

Table 5. Correlation Analysis (Spearman correlation)

Variables	Academic performance (r)	Factors that effect of mental health	Level of mental health
Academic performance	1.000		
Factors that affect of mental health	0.382**	1.000	
Level of mental health	0.331**	0.724**	1.000

Table 5 shows the correlation between the independent variables and dependent variable in the research conducted. As for this research, we must look the R-value that stated in the column Academic performance. The R-value for level of mental health in the academic performance column shows a value

of $r = 0.331$, which is considered as a weak positive relationship between the level of students' mental health on academic performance. On the other independent variable, the R-value for the factors that affect the student mental health in the academic performance column shows the value of $r = 0.382$, which explain the positive relationship between factors affect students' mental health and academic performance. In conclusion, though both independent variables have positive relationship on academic performance, the variable of factors that affect student mental health has a higher value compare with the variable of level of students' mental health.

The four main categories are respondent demographic information, level of students' mental health, factors that affect students' mental health and students' academic performance. Reliability analysis for actual studies is at a good level of reliability value. Based on the normality test results, there is a normal distribution. Therefore, Spearman correlation analysis was used in the study. Overall, the purpose of the research was to determine the relationship between the level of students' mental health and factors that affect the students' mental health on academic performance. The study found that there was a significant positive relationship between the independent variables and the dependent variables. Therefore, both first and second hypothesis for this research was supported.

Result and Discussion

The data analysis was divided into several sections based on the questionnaire form. The first part discussed the descriptive analysis of respondent's background. The second part discussed the normality of the result prior conducting types of correlation analysis. The third part discussed about the correlation analysis between the independent variables and dependent variables.

The first research objective is to identify the level of mental health among undergraduate students in UTHM. There are three factors which include the stress, anxiety, and depression. Based on the findings, most students are faced with anxiety because the mean for feeling anxious and worries in your mind than usual is 3.17 in which it has a medium central tendency. The depression level among undergraduate students shows the lowest mean for the feeling sad and depressed in which it has a low medium central tendency.

The second objective for this research is to identify the relationship between the level of mental health and academic performance. Based on this research, it shows that there is a positive relationship between the level of students' mental health and academic performance as the result shows that the results of Spearman correlation coefficient which is $r = 0.331$. As a result, students with high level of mental health tend to have a good impact on their academic performance. Based on the findings, it is aligned with Bostani et al. (2016) stated that the level of mental health such as anxiety has a significant relationship with academic performance. There is positive relationship between the level of students' mental health and the effects of students' mental health on academic performance because the r value is considered as positive, which $r=0.331$. Therefore, the correlation analysis supported the relationship between the level of students' mental health and the academic performance. Therefore, H1 is supported.

The third objective for this research is to identify the relationship between the factors that affecting student's mental health and academic performance. There is strong relationship between factors that affect students' mental health and academic performance because the r value is considered as strong which $r=0.382$. Therefore, the correlation analysis supported the relationship between the factors that affect students' mental health and the academic performance. Therefore, H2 for this study is supported.

Conclusion

In conclusion, there are a significant positive relationship between the level of mental health and factors that affect students' mental health on academic performance among undergraduate students in UTHM. This study can further strengthen the finding that mental health is an important indicator of student performance in university and deserves serious attention by various parties. It can also provide guidance to the university and other authorities to continue to actively provide mental health services to the

workforce, especially future graduates.

As a recommendation from the result of this research, University can provide 24-hour tele-counselling services to ensure that students can complain to the counsellor if they experience stress. Other than that, by exposing students to the importance of maintaining mental health by conducting campaigns. For future study, manage the time properly in order to complete the research so that they have extra time in order to collect more data. Future researcher also can expand the topic so that they can develop more relevant and valid questionnaires. In addition, researchers had to use an alternative approach by using survey methods by distributing questionnaires online and this has limited the data collection process because students are busy adapting to online learning and filling out questionnaires is not an important matter at that time. As a result, the measurements were reported by the participants themselves. This means that the responses' quality could be affected, and the researchers won't be able to check their validity. Despite the survey's confidentiality, it's possible that some students didn't answer honestly.

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Author Contribution

MZ Yusoff – research idea, review, conceptualization; MA Shafi – data collection, writing; NF Ismail– research idea, reviewing and editing.

Conflict of Interest

Authors declare no conflict of interest.

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