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THE RELATIONSHIP BETWEEN MENTAL HEALTH, STRESS AND ACADEMIC PERFORMANCE AMONG COLLEGE STUDENT

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Abstract

Academic performance problems among students are reportedly increasing from time to time. Various factors can affect the academic performance problems, mainly mental health factors and stress factors. The purpose of this study is to examine the relationship between student's academic performance, stress factors and mental health factors. The study uses quantitative methods to obtain the results of the study. Data were collected using a survey form distributed to 489 students of University Tenaga Nasional Sultan Haji Ahmad Shah campus. This study uses the demographic background to determine students' CGPA, General Health Questionnaire (GHQ) instrument to assess the psychological stress of the student, and Mental Health Inventory (MHI) to determine the students' mental health level. The results showed that majority of students' academic performance were moderate (CGPA 2.50 – 2.99) while students' stress levels were high and the students' mental health was also high. The results also show that there is no significant correlation between academic performance and mental health, while there is significant correlation found between stress factors and academic performance. In conclusion, the main focus of the student in campus is academic performance and stress control will assist the student's positive thinking to remain durable and thus, students will be able to meet their target in academic. Meanwhile, out of many factors studied in order to understand their interactional effects to academic performance, this study identified that there is no significant relationship between mental health and academic performance.

Keywords: Academic performance, mental health, stress, students.

1. Introduction

University students face many challenges in their effort to attain success, as they have to fulfil various obligations and undergo many transformational processes prior to the achievement. Such processes yield stressful situations that must be confronted by the students. According to Rice (1999), stress or stressful situation may originate from these three aspects that are; (1) the existence of situational (event) and environmental stimuli that may cause stressful situation (the external factor), (2) the result of subjective responses that take place (that is also considered as the internal factor or the mental aspect), and (3) due to physical reaction of the human body. Stress is caused by both internal and external factors that stimulate the occurring of certain behaviour as a respond to certain situation which is all this factors can effect students' academic performance.

Students are crowded with challenges and obstacle in their effort to attain optimum academic achievement. Such attainment, plus the securing of a good employment, can only be made possible through diligent academic learning process. There are many kinds of stress factors that may shackled students in this situation, such as; poor time management, unfavourable financial situation, lack of sleep, extreme social activities, and to some the obligation and responsibilities toward spouse and children. These different kind of stress factors may form threats to either the students themselves or to their academic performances (Mastura, Fadilah & Nor Akmar, 2007). Stress is consists of three main dimensions that are: (1) situation or event that threatens and has the potential to destroy, (2) the feel of anxiety that combines emotional elements and components of thought that will affect our body reaction and, (3) the transaction, a process of how one would face the situation. The transaction process depends on the character of the individual and the surrounding environment that affects it. (Matthews & Campbell, 2009).

According to Mazni, Mohammad & Sapora (2004), students in Malaysia are always faced with anxiety and stress, and this situation continuously occur (in different manner) at certain timing throughout the study process. They will never come to any tranquil state due to various tasks that are continuously need to be done such as assignments for subjects, co-curriculum activities, managing daily personal activities and many more. Anxiety and stress, uncontrolled, may adversely affect the student's mental health. Study conducted by the Kementerian Kesihatan Malaysia (2008) showed that the level of education is a determining factor to the level of mental health where the highest score in the study (indicating the existence of high level of mental health problems) is usually associated to those with no education or low education background. In addition, this study also stated that adolescents between the ages of 16 and 24, and those having a low mental health levels, showed a higher tendency to commit suicide. Anxiety and sleep disorders are among the factors that can affect mental health. This study can be closely linked to university students because they are classified under the same age level and are very likely to face the same risk if the process of university life is too stressful for them.

This study may help in providing knowledge and awareness to students and other related parties on information relating to "the study of mental health, stress and its relation to academic performance among students". The finding may also encourage a further study in the related areas to be conducted in the future. The presented facts in this paper highlights the necessity to conduct such study (that focus on

understanding the relations between mental health, stress and academic performance) in order for solutions that are relevant to the present situation to be discovered.

2. Problem Statement

The results from previous studies of academic performance of universities students have been widely used in the fostering of awareness for improvement and development of institute of higher learning in Malaysia. This is observable through the current common presence of counseling units, wide practice of psychological interventions, and the organizing of many motivational programs and other self-empowering programs in the institutes. However, the issues relating to universities' students' academic performance and quality remain as a debatable topic to many, especially in the current situation where the numbers of unemployed university graduates remain on the increasing trend. University Graduates Labor Force Statistical Report issued by the Department of Statistics, Malaysia indicated that the number of unemployed graduates increased annually. For the year 2015 alone, more than 112,000 graduates were reported to be unemployed as compared to 108,000 reported in the previous year (Sinar Online, 2016). Thus, the quality of university graduates are now becoming questionable to many.

The changing life pattern of university students in the globalization era has created a barrier that somehow hampers the capacity of university management to control students' academic performance. At Universiti Tenaga Nasional (UNITEN) for an example, there is a noted drop in the number of students with outstanding academic performance. According to a report prepared by the counseling unit of UNITEN, sleeping problem is the main cause of the academic performance decline. The report also notes that most students referred by lecturers to counselors are those who showed the same characteristic of often skipping classes conducted between 8.00 and 10.00 in the morning. There are also students who were referred to the counselors as having been totally absent from classes for the period of more than four weeks. UNITEN Student Counseling and Development Unit Report (2015) states that inadequate sleep problems among students is the main reason they were unable to attend classes conducted in the morning. This inadequate sleep problems are due to the activities they do at night such as; playing video games, surfing the social web, chatting, doing assignments given by lecturers and preparing for programs organized by the student clubs. Uncontrolled and continuously hectic life style may have adverse impact on students' mental health.

The issue of mental health is gaining more attention in mass media nowadays. National Health and Morbidity Study (2015) and also stated in Sinar Harian, 2016 found that one out of three Malaysians are experiencing issues related to mental problems. In addition, suicide rate has also showed an increase. Five years statistics (2010 - 2014) from the Health Informatics Center, Ministry of Health Malaysia showed 338 deaths in hospitals belonging to Ministry of Health were related to suicide attempt. Further, studies conducted by the Malaysian Youth Development Research Institute showed that 4.8 percent (288 people out of 5792 people) from the total of youth involved in the study tend to commit suicide (Indeks Belia Malaysia 2015). These studies show that the students are not excluded from being involved with stress and depression problems that may lead to the desire to commit suicide. These critical issues need to be addressed so that students may able to think rationally and avoid from taking the wrong steps.

The continuous cycle of such a busy life pattern may result in the formation of stress within students. This factor attracted the researcher to conduct a research at this university with aim to prove that the relation between academic performance and stress do impose certain impact on students' academic achievement. This study is expected to provide awareness to various stakeholders about the effects of stress and mental health on students' academic achievement.

3. Research Questions

3.1 What is the level of academic performance of students at Universiti Tenaga Nasional Sultan Haji Ahmad Shah Campus?

3.2 What is the level of mental health of students at Universiti Tenaga Nasional Sultan Haji Ahmad Shah Campus?

3.3 What is the level of stress of students at Universiti Tenaga Nasional Sultan Haji Ahmad Shah Campus?

3.4 What is the relationship between students' mental health, psychological stress and academic performance?

4. Purpose of the Study

This study aims to identify the relationship between mental health, stress and academic performance among students at Universiti Tenaga Nasional Sultan Haji Ahmad Shah Campus, Muadzam Shah Pahang.

5. Research Methods

This study is a quantitative study that uses a set of questionnaire with aims to study the relationship between academic performance, students' stress and mental health at Universiti Tenaga Nasional Sultan Haji Ahmad Shah Campus, Muadzam Shah Pahang. Based on the sample size determination of Krejcie and Morgan (1970), the minimum size of sample for a study involving 2000 population should be 322 sample. To complete this research, a total of 500 sets of questionnaires were distributed and the students of Universiti Tenaga Nasional (UNITEN) were selected as samples. The questionnaires were all completely filled up as explanations during the data collection was personally controlled by the researchers in order to ensure all sections of the questionnaire are correctly answered. However, only 489 questionnaires were completely answered by the respondents (the number of sample responses exceeds the required minimum sample size). The sample selection is done based on the main field of study (courses) offered at Universiti Tenaga Nasional (UNITEN), that are; Accounting, Finance, Business Management and International Business. All selected samples were sorted with reference to gender, race, course and year of study, and the age range of the students involved in this study is between 19 to 25 years old, which consists of students from year 1 to year 3.

5.1. Measurement of variables

The data source for this research is primary data. Primary data is a data that is originally collected, differing from the secondary data that is a compilation from the readily published sources. This research uses a descriptive method, in which it describes either about a phenomenon, a current situation, or the characteristic of a group of organization, people and others (Kumar, Salim & Ramayah, 2013). This research will describe the relationship between academic achievements and stress among students in UNITEN KSHAS.

According to Khosa, Tiriyo, Ritacco & Lowies (2014), a research must measure the concepts correctly or otherwise the data will be wrongly interpreted. Three variables which are mental health and stress as dependent variables and academic performance is independent variable are involved in this study other than the demographic variables. Nominal scale will be used to measure the demographic variables such as gender, age and etc. Nominal scale does not signify anything and it is only an indication of category. Therefore, these variables cannot be ranked. For the year of study, course, race and academic achievements variables, the researcher will use ordinal scale so that the researcher will be able to identify the differences among various categories. This scale measures the degrees of differences but not the specification of differences. The ordinal scale implies ranking based on preferences.

The first instrument used in this study is 'Mental Health Inventory' (MHI). This instrument is widely used to measure the overall emotional function and was developed by Veit and Ware (1983). This instrument is used to assess mental health issues and covers a variety of negative and positive emotions such as anxiety, depression, behavioral control and stress. The MHI instrument consists of 18 items that were tested their reliability and this study maintain the existing subscale structure for the data collection. The items included in the questionnaire are gauging individual's mental health level in general for a period of one month (the nearest month to the date of data collection). The response scale is from 1 to 6 and each answer has a descriptive statement. The answer scales are: (1) 'all the time', (2) 'most of the time', (3) 'often', (4) 'sometimes', (5) 'seldom', and (6) 'not at all'. The scores for the MHI-18 score is based on 0 to 100 marks. The higher the MHI-18 score showed a better state of mental health.

The second instrument for this study is adopted from Goldberg (1992), and known as General Health Questionnaire (GHQ-12). This instrument is used to detect individuals with psychiatric disorders (Goldberg & Hillier, 1979). The original version of the instrument consists of 60 items (GHQ-60), which then was reduced to 30 items (GHQ-30), 28 items (GHQ-28); and finally 12 items (GHQ-12) (Goldberg &Williams, 1988). GHQ-12 is the most widely used instrument for assessing mental disorders. This instrument is also widely used by researchers in various other areas (occupational health, medicine, psychology) and doctors who intend to screen individuals for psychiatric disorders (Sanchez- López & Dresch, 2008). GHQ-12 contains 12 items related to personal health where six are positive items and the other six are negative items. The reliability value for this scale is high at Alfa Cronbach 0.90. The translation of this instrument into various languages including Bahasa Melayu has further extended it's wide usage. This instrument is paired with a scale of responses from 0 to 3, each with specific score statement. The score statement for the scale of responses are; 0 for 'not at all', 1 for 'not more than usual', 2 for 'more than usual' and 3 for 'a lot more than usual'. Respondents were required to respond based on

the situation that was current during the completing of the questionnaire. Point scoring for GHQ-12 is based on a score from 0 to 36. A higher score for GHQ-12 indicates a more severe level of stress.

5.2. Statistical Analysis
5.2.1. Descriptive Analysis

This analysis describes the characteristics of the variables. The descriptive statistic uses frequency, percentage, mean, standard deviation, median and cross-distribution test to explain the characteristics of the variables in order to give a description about the respondents through background, gender, race, course, study year and the assessment of cumulative grade value.

5.2.2. Inference Analysis

Statistical inference analysis describes the relationship between variables and helps to generalize the samples' characteristics of the population. The data were analyzed using Statistical Package for Social Sciences (SPSS) version 22.0, and data were presented in the form of tables and statistics. The test utilized was Pearson Correlation and the significant level was set at $p < 0.01$.

6. Findings

6.1. Respondent

This data analysis was carried out using the respond obtained from 489 sample; the students of Universiti Tenaga Nasioanal (UNITEN), Sultan Haji Ahmad Shah Campus (a total of 500 surveys were distributed and 489 questionnaires were completely answered). As stated earlier, this amount is higher than the requirement because the required sample 2000 for this study is only 323.

6.2. Results of the Descriptive Analysis Study

The respondent's sociodemographic characteristics are shown in Table 1. Study shows that 76.5% of the respondents are female while the remaining of 23.5% are male respondents. In terms of race division, the number of respondents were dominated by Malays with the total of 80.9% as compared to the Indian (12.5%), Chinese (4.5%) and other races (2.2%).

In terms of distribution of field of studies (courses), it was noted that most samples were from the undergraduate degree program of Accounting with the total of 75.1%, followed by samples from the undergraduate degree program of Finance with the total of 17.5%. The number of samples from the undergraduate degree of Business Management is 5.7% and lastly, the total sample from International Business bachelor degree courses is 2.0%.

The distribution of the sociodemographic characteristics of the sample in terms of the year of study was; 78.5% of the sample was from year 1 while 14.7% from year 2 and 6.7% from year 3. The distribution of sociodemographic characteristics for academic performance observed through the average of cumulative grade values showed that 14.1% of the samples were at the achievement level of 3.50 - 4.00 while 35.2% of samples were at 3.00 - 3.49. The highest number of samples were at the level of achievement of 2.50 - 2.99 which was 47.2% and finally, sample at the achievement level of 2.00 - 2.49 was 3.5%.

Table 01. The Distribution of Sociodemographic Characteristics of Respondents.

Characteristics of Sample	Frequency	Percentage
Gender		
Male	115	23.5
Female	374	76.5
Race		
Malay	395	80.8
Chinese	22	4.5
Indian	61	12.5
Others	11	2.2
Field of study		
Degree of Accounting	367	75.1
Degree of Finance	84	17.2
Degree of Business Management	28	5.7
Degree of International Business	10	2.0
Year of study		
Year 1	384	78.5
Year 2	72	14.7
Year 3	33	6.7
Academic Achievement		
3.50-4.00	69	14.1
3.00-3.49	172	35.2
2.50-2.99	231	47.2
2.00-2.49	17	3.50

Results of the study found that most of the respondents involved recorded high stress levels, which is 68.3 percent compared to 31.7 percent who indicated otherwise.

Table 02. Level of Students' Stress

Category	Score Range	Frequency	%	Min	Standard Deviation
Low Stress Level	0 – 18	155	31.7	1.68	0.466
High Stress Level	19 – 36	334	68.3		

For mental health, majority of the respondents showed a good (high) level of mental health, as high as 69.5 per cent compared to 30.5 per cent reported having bad (low) mental health level.

Table 03. Level of Students' Mental Health.

Category	Score Range	Frequency	%	Min	Standard Deviation
Low Stress Level	0 – 50	149	30.5	1.70	0.461
High Stress Level	51 – 100	340	69.5		

6.3. Correlation

The results can be observed at Table 04. The results of study showed that there was a significant correlation between academic performance and stress, that is r = 0.00 p> 0.01. Meanwhile, the result showed there is no significant level between academic performance and mental health (r= 0.136 p>0.01). Past studies have shown that the relationship between academic achievement and stress is at a significant level. The study conducted by Misra & McKean (2000) was the example. The results of their study showed that the level of stress was the highest among students when it was associated with academic factors such as student preparation for exams, competition for good grades and time management for

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studying. Similar results of study was obtained from a study conducted by Suriani & Suraini (2005) at Universiti Pendidikan Sultan Idris; the study found that the problem of academic stress, pressure by lecturers, and personal problems had been experienced by 70 percent to 91 percent of students. The results from both research confirmed the reliability of result attained through this research; there is a significant correlation between stress and academic performance. The results of this study pertaining to the relationship between academic achievement and mental health are in line with the results of the study conducted by (Gilavand & Shooriabi, 2016). They stated that no significant relationship was observed between mental health dimensions and academic performance, although there was significant and reverse relationship between the students' mean scores of mental health questionnaire and academic performance. It means that by mental health enhancement (the low total score in test) the students' GPA (as academic achievement indicator) increase. Students' effort to attain good results in study does not affect the state of their mental health but the condition of their mental health may affect their capacity to devise the best strategy and to endure in the competition to attain and maintain good academic result.

Table 04. Correlation Analysis of Relationship between Mental Health, Stress and Academic Performance.

Variables	Academic Performance
Stress	0.00
Mental health	0.136*

*significance at $p < 0.01$

7. Conclusion

The findings from this research suggested that there is a significant relationship between academic performance and stress. The findings also showed that there are differences in the type psychological stress experienced by students in which academic performance is the main. These findings are in line with the results obtained from previous studies. Bullare, Rathakrishnan & Ismail (2009) and Mastura Mahfar et al. (2007) stated that in addition to career pursuit, academic factor contribute to the degree of stress experienced by students. Misra & McKean (2000) also depicted that academic factors are the main source of stress for students. In general, the changing lifestyle of the students is a contributing factor to the building of stress. More specifically it relates to the process of leaving home (far from parents, siblings and friends), seeking new friends, dealing with classmates from different racial and religion background as well as having to compete to attain excellent academic results. Situation will start to be problematic when students are confronted with financial issues, issues of love affair, poor academic performance and discipline problems. Stress is seen as the major factor that contribute to students' academic performance as students struggle to maintain good results, uphold family expectations, preserve dignity, and to avoid the consequences that may occur from not being able to maintain good academic results such as university dismissal, subject repeat, additional financial burdens and so forth (Kaplan & Saccuzzo 2009; Wade & Tavris 2009; Suriani & Suraini 2005; Womble 2003; Ban & Lee 2001; Schafer 1996; Towbes & Cohen 1996).

The main focus for every student is to achieve success by graduating with excellent results in order to secure a stable career. The desire for excellence will encourage students to strive to achieve their dreams. This concentrated efforts will drive students to stressful situations as they have to face various

challenges from both physical and mental aspects. The findings of this study are in line with past studies in which researchers have found that students' desires to obtain good results were actually the external and internal factors that lead them to stressful conditions (Bullare et al. 2009; Mastura et al. 2007; Misra & McKean 2000). Based on the findings of this study, researchers identified that there are other external factors that lead students to being depressed such as subject assignments, quizzes, exams and poor time management. In addition, the rate of tuition fees at the university also affects their level of stress. In general, it is notable that the rates of private institutions fees are high and this will pressure students to work hard to ensure they are able to achieve good results without having to repeat any subject or otherwise they will have to re-seat for each of the subjects with very expensive additional fee payments.

The process of subject-repeat is not only stressful and complicated but also costly as it involves extra payments such as the payment of tuition fees and dormitory fees. What is more alarming is that students will not be able to graduate on time because the repeated subject may only be offered in particular semester and this situation will definitely affect students' future in many ways. Therefore, students will try to make sure they do not fail. The researchers' opinion is supported by another study. For example, Womble (2002) states that the degree of anxiety increases as students are approaching the tests or examinations period and these are among the key factors that make students feel depressed (due to their desire to attain excellent results). In addition, lecturers' personality may also influence the level of students' pressure. Lecturers being unreasonably strict and uncooperative are normally not very encouraging in assisting students to attain/maintain good academic performances. And finally, there are also situations where students are given an unfair (heavy) assignment as compared to the (total) number of credit taken by students for the subject. For this, the university has initiated a countermeasure by introducing the OBEOS system that should be able to measure the level of balance between the numbers of assignments given as against the credit hour of the syllabus offered.

Apart from external factors as stated above, the internal factors may also influence the level of stress among students. There are students who need to work part-time in order to accommodate the payment for tuition fees and yet need to focus on assignments and lessons at the same time. Other than having to ensure that academic performance is at an excellent level, students are also forced to use the time available to do various daily activities and to complete tasks given with having to stay awake at night. Prolonged tired conditions will contribute to the stress on the mental aspects of the students. As stated by Wade & Tavris (2009), it is normal for students to bear the responsibility of performing academic tasks, maintaining good academic achievement, to manage oneself, managing personal financial matters and participating in various co-curriculum activities. However, the situation may result in them failing to control their emotions and become depressed due to the mental fatigue experienced. It can be concluded that student's desire to achieve outstanding results and their dreams of having a bright future makes them feel motivated to work hard to achieve the goals, but they have no choice other than to go through barriers and obstacles that may even dragged them into stressful situation prior to achieving the dreams.

Finally, about the relationship between academic performances and mental health of students; result of studies has indicated non-significant correlation. Efforts to achieve academic excellence contribute to the accumulation of stress within students but it does not affect their mental health. On the

other hand, the student's mental health level will affect the competitiveness of the students in order to develop strategies to achieve academic excellence. Individual's mental health level is strongly influenced by the environmental factors existed at the beginning of the psychological development of that individual. The factors will determine the type of personality (of individual) that is formed and this condition will affect the life cycle of that individual (including at the age of being a university student) for long, even for the whole life may be. Therefore, the study of the initial development stage of individual psychology and its effect on mental health is of paramount importance and this will be discussed in our future studies.

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