

Exploring Learners' Mental Health Profile: A study in Universiti Tun Hussein Onn Malaysia

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Abstract. Mental health issue was a serious matter that was often neglected by people. This article will describe a study of the mental health profile among the learners of Malaysia Technical University (MTU) that focus on Universiti Tun Hussein Onn Malaysia (UTHM). A survey using DASS-21 inventory and self-developed questionnaire was used for this study to investigate learners' mental health level in three elements and factors contribute towards mental health. A total number of 450 students from seven faculties in UTHM was strata randomly selected as sampel for this study. The relationships between factors of mental health and the elements of mental health was identified. Collected data was analysed using percentage, mean score, standard deviation and multiple linear regression. Findings showed that majority of students possess normal level but the percentage of severe and extremely severe level was increasing. The main factor highly significantly correlate to all the mental health elements was self-evaluation. Hence, it is highly recommended that mental health issue needs great attention and remedial action from higher learning institution, non-governmental organizations, parents, students themselves and other concerned bodies.

1. Introduction

Mental health problems among students are increasingly worried and some of the significant action need to be taken because this issues also involves university students who are the future leaders of the country (Lee & Ahmad, 2014). Mental health is common and can affect anyone. Greater awareness about mental health and early diagnosis can help students be away suffering from mental health. Thus, administrator, counsellor, lecturer, parent and the concern body need to mastery the knowledge, attitude and skills in mental health to help these students cope with their emotions, handle and manage their stress level. According to [2], Mental illness is expected to be the second highest form of health problem affecting Malaysians after heart disease by 2020. Hospital Tuanku Fauziah Department of Psychiatry head Dr Ruzita Jamaluddin said statistics on mental illness was worrying as in 2008, about 400,227 patients in Malaysia sought psychiatric help from government hospitals [2]. Therefore, this study was aimed to produce a profile of mental health problem among the Malaysian Technical University (MTU) students which consist of Universiti Tun Hussein Onn Malaysia (UTHM), University of Technical Malaysia Melaka (UTeM), Universiti Malaysia Perlis (UniMAP) and Universiti Malaysia Pahang (UMP). However, this paper will only discuss students from UTHM only.



2. Methodology

This study was using a survey method as research design. The total numbers of 450 students were randomly selected as sample in this study by using a stratified random sampling technique. DASS-21 inventory and self-developed questionnaire were used as instrument for this study. The DASS-21 [3] comprises of 21 items that examined the mental health level from three elements, namely stress, depression, and anxiety. Respondent need to answer the inventory using four rating scale, which is “Never”, “Sometimes”, “Often” and “Almost Always”. The students' mental health level was measured throughout five levels, namely normal, mild, moderate, severe and extremely severe. For those who have a normal, mild and moderate level, they will only need the general intervention. However, for those who have a severe and extremely severe level, they will need a specific intervention in order to overcome their mental health problem. The detail of scoring for DASS-21 is shown in Table 1.

Table 1: Interpretation of DASS-21 Score

Level \ Element	Depression	Anxiety	Stress
Normal	0 – 4	0 – 3	0 – 7
Mild	5 -6	4 – 5	8 – 9
Moderate	7 - 10	6 – 7	10 – 12
Severe	11 – 13	8 – 9	13 – 16
Extremely Severe	14+	10+	17+

The self-developed questionnaire consisted of 57 items to measure 10 factors affecting mental health that is self-evaluation, living style, health, learning environment, parent, peer, lecturer, academic, financial and the lost. Respondent needs to answer the items either “Yes” or “No” to identify the dominant factors higher influence their mental health problem.

This study was conducted during the students sit for their midterm examination as this inventory is indicating mental health issue that applied to the respondent over the past week. The gathered data were analyzed by using percentage, mean score, standard deviation and multiple linear regression. The descriptive statistics was used to determine the mental health score level and the dominant factors affecting their mental health problem; while the multiple linear regression was used to determining the various factors that contribute to the mental health problem among the students in order to establish the cause effect relationship between various factors and mental health problem.

3. Results

Table 2 showed the results of mental health score among the students from seven faculties in UTHM, namely Faculty of Technical Engineering (FTK), Faculty of Technical & Vocational Education (FPTV), Faculty of Electrical & Electronic Engineering (FKEE), Faculty of Technology Management and Business (FPTP), Faculty of Civil & Environmental Engineering (FKAAS), Faculty of Computer Science & Information Technology (FSKTM), Faculty of Mechanical & Manufacturing Engineering (FKMP). The result shows that FPTP tends to have the highest score in Depress and Stress element compare to other faculties. Meanwhile, FTK students tend to have highest score for anxiety element.

Table 2 : Comparison of Students' Mental Health Score according to the Faculty

Mental Health		FTK	FPTV	FKEE	FPTP	FKAAS	FSKTM	FKMP
Depress	Mean	1.90	1.59	1.35	1.92	1.63	1.53	1.40
	SD	1.09	1.07	0.82	1.27	1.23	0.97	0.69
Anxiety	Mean	6.33	6.04	4.24	6.14	5.01	4.24	5.00
	SD	3.98	3.71	3.33	3.84	4.06	3.73	3.39
Stress	Mean	7.02	6.57	5.39	7.43	6.21	5.82	6.41
	SD	3.74	3.73	3.89	3.61	3.91	4.22	3.57

Note: SD = standard deviation

Table 3 shows the mental health level for three mental health elements among the students from the seven faculties. The findings indicated that the majority of the students tended to have a normal mental health level in all three different elements of mental health. FKEE students tend to have normal level for all depress (80.4%), anxiety (62.7%) and stress (78.4%) compare to other faculties. However, about 18.9% of FPTP students tend to have severe and extremely severe level in depress; about 28.6% of FTK students tended to need specific intervention for anxiety, about 8.1% of FPTP students tend to have severe level for stress but about 2% of FKEE students tend to have extremely severe level for stress.

Table 3 : Comparison of Students' Mental Health Level according to the Faculty

Faculty	Normal (%)			Mild (%)			Moderate (%)			Severe (%)			Extreme Severe (%)		
	D	A	S	D	A	S	D	A	S	D	A	S	D	A	S
FTK	50.8	38.1	57.1	20.6	17.5	12.7	15.9	15.9	23.8	12.7	11.1	6.3	0.0	17.5	0.0
FPTV	70.7	37.8	61.0	13.4	25.6	17.1	4.9	12.2	18.3	8.5	14.6	3.7	2.4	9.8	0.0
FKEE	80.4	62.7	78.4	7.8	19.6	11.8	9.8	5.9	7.8	0.0	5.9	0.0	2.0	5.9	2.0
FPTP	59.5	32.4	48.6	10.8	24.3	24.3	10.8	18.9	18.9	16.2	10.8	8.1	2.7	13.5	0.0
FKAAS	70.1	55.2	70.1	11.9	14.9	6.0	6.0	11.9	17.9	9.0	6.0	6.0	3.0	11.9	0.0
FSKTM	71.1	57.8	64.4	13.3	20.0	13.3	6.7	6.7	20.0	8.9	6.7	2.2	0.0	8.9	0.0
FKMP	70.6	50.0	63.2	20.6	11.8	22.1	7.4	22.1	11.8	1.5	10.3	2.9	0.0	5.9	0.0

Note: D= depress; A = anxiety; S = stress

Table 4 shows comparison of factors contribute towards students' mental health according to the faculty. Living style contribute most in mental health among the FPTV students; but FSKTM score the highest for the rest of nine factors contribute to mental health problem. On the other hand, each faculty tend to have the different ranking for each factors contribute to mental health problem, but surprisingly, self-evaluation scores the first ranking among the ten factors for all seven faculties students as shown in Table 5.

Table 4 : Comparison of Factors contribute towards Students' Mental Health according to the Faculty

Factor		FTK	FPTV	FKEE	FPTP	FKAAS	FSKTM	FKMP
Self-Evaluation	Mean	0.70	0.77	0.85	0.71	0.74	0.80	0.81
	SD	0.20	0.18	0.44	0.21	0.23	0.21	0.18
Living Style	Mean	0.46	0.59	0.55	0.46	0.51	0.55	0.58
	SD	0.26	0.29	0.23	0.24	0.28	0.28	0.28
Health	Mean	0.69	0.52	0.61	0.50	0.55	0.87	0.74
	SD	0.43	0.49	0.44	0.48	0.49	0.27	0.41
Learning Environment	Mean	0.59	0.49	0.50	0.50	0.51	0.63	0.55
	SD	0.35	0.34	0.26	0.27	0.38	0.30	0.29

Parent	Mean	0.68	0.51	0.57	0.50	0.55	0.76	0.64
	SD	0.37	0.35	0.39	0.37	0.41	0.27	0.34
Peer	Mean	0.66	0.52	0.56	0.50	0.55	0.77	0.71
	SD	0.40	0.43	0.43	0.39	0.48	0.32	0.38
Lecturer	Mean	0.61	0.51	0.53	0.50	0.54	0.68	0.59
	SD	0.39	0.39	0.39	0.34	0.41	0.36	0.39
Financial	Mean	0.61	0.50	0.51	0.50	0.52	0.62	0.58
	SD	0.31	0.23	0.25	0.27	0.38	0.29	0.27
Academic	Mean	0.54	0.52	0.50	0.50	0.51	0.61	0.47
	SD	0.27	0.444	0.23	0.22	0.33	0.29	0.23
The Lost	Mean	0.69	0.52	0.59	0.50	0.55	0.79	0.70
	SD	0.41	0.44	0.42	0.43	0.48	0.28	0.38

Note: SD = standard deviation

Table 5 : Ranking for Factors contribute towards Students' Mental Health according to the Faculty

Factor	FTK	FPTV	FKEE	FPTP	FKAAS	FSKTM	FKMP
Self-Evaluation	1	1	1	1	1	1	1
Living Style	10	2	6	10	8	10	7
Health	2	3	2	2	2	2	2
Learning Environment	8	10	9	2	8	7	9
Parent	4	7	4	2	2	5	5
Peer	5	3	5	2	2	4	3
Lecturer	6	7	7	2	6	6	6
Financial	6	9	8	2	7	8	7
Academic	9	3	9	2	8	9	10
The Lost	2	3	3	2	2	3	4

Multiple linear regression was used to analyse whether the portion of the variation in the mental health score is explained by the linear model comprising of self-evaluation, living style, health, learning environment, parent, peer, lecturer, academic, financial and the lost. Nevertheless, only self-evaluation is significantly linearly related to all three mental health elements. Table 6 shows the variation in the self-evaluation can be attributed to the changes in the respondents' mental health elements, R^2 indicates that about 43% for depress, 55% for anxiety and 61% for stress. Table 7 shows the results of the ANOVA for Multiple Regressions. The p-value for all three elements are smaller than 0.05, and this can conclude there is a linear relationship between the self-evaluation and the three mental health elements. The t-test for regression slope for the linear relationship between self-evaluation and three mental health elements are conducted. The result is shown in Table 8. The regression coefficient for these relationships are:

- Depress = $6.891 - 3.402 (\text{self-evaluation}) + \text{Error}$
- Anxiety = $8.248 - 3.836 (\text{self-evaluation}) + \text{Error}$
- Stress = $9.495 - 4.052 (\text{self-evaluation}) + \text{Error}$

Table 6 : Model Summary for Three Mental Health Elements

Mental Health	R	R Square	Adjusted R Square	Std. Error of the Estimate
Depress	.207 ^a	.043	.041	3.754
Anxiety	.235	.055	.053	3.696

Stress	.248	.061	.059	3.695
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a. Predictors: (Constant), self evaluation

Table 7 : The Results of the ANOVA for Multiple Regressions
ANOVA^a

Mental Health	Model	Sum of Squares	df	Mean Square	F	Sig.
Depress	Regression	281.516	1	281.516	19.978	.000 ^b
	Residual	6312.984	448	14.091		
	Total	6594.500	449			
Anxiety	Regression	357.780	1	357.780	26.197	.000
	Residual	6118.418	448	13.657		
	Total	6476.198	449			
Stress	Regression	399.315	1	399.315	29.254	.000
	Residual	6115.130	448	13.650		
	Total	6514.444	449			

b. Predictors: (Constant), self evaluation

Table 8 : The Results of the T-test to Test the Significance of the Regression Slopes
Coefficients^a

Mental Health	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Depress	(Constant)	6.891	.592		11.644	.000
	self evaluation	-3.402	.761	-.207	-4.470	.000
Anxiety	(Constant)	8.248	.583		14.157	.000
	self evaluation	-3.836	.749	-.235	-5.118	.000
Stress	(Constant)	9.495	.582		16.302	.000
	self evaluation	-4.052	.749	-.248	-5.409	.000

4. Discussion

Results shows that majority of the students from difference discipline score the mental health at a normal level from depress, anxiety and stress element. However, the numbers of students tend to have severe and extremely severe is increasing. Compare to the finding obtained by [1], only 0.8% possesses the severe level of depress and none of them tended to have extremely severe level but now the percentage is up to 10%. While for the anxiety element, percentage is increasing from 18% to 20.5%. In addition, percentage for those who need special intervention for stress is increasing from 1.5% to 4.6%. This finding proves the statement of Ministry of Health Malaysia in year 2015. According to the 2015 National Health and Morbidity Survey Report [4], 29.2% of Malaysian adults suffer from mental health issues; roughly translates frequency is 3 out of 10 people. The worry is that this is a rising number from 10.6% (1 in 10) in 1996, and 20% (2 out of 10) in 2013. Furthermore, Health Ministry statistics reveal a worsening state of mental health problems among Malaysian students, from one in 10 individuals in 2011 to one in five in 2016 [5]. Besides, research done by the Malaysian Psychiatric Association on the prevalence of depression among Malaysians showed a 50

per cent increase in depressed patients from 2011 to 2015 [6]. The increasing statistics is extremely alarming because mental health issue is highly related to a student academic achievement as the decisive factor to ensure their ability in tackling the challenges in the future. Experts emphasize that anxiety and depression as the main causes of mental health problems among students even though they are not ruling out the influence of drugs as a factor [5]. According to Dr Mohd Suhaimi Mohamad as stated in [5] mention that mental health problems could make students become withdrawn, suffer from schizophrenia and develop the inclination to commit suicide. Surprisingly, the finding shows non-engineering students possess to have severe and extremely severe in mental health problem compare to engineering students

Related with a lot of factors comprise with mental health problem among the students, [7] found out seven factors including problem with peer, hostel is uncomfortable for study, face problem with roommates, homesick, feel that campus environment uncomfortable for study, racial diversity, and too many roommates are making study difficult. On the other hand, [8] stated that there are five factors highly associated to students' mental health problem: ability to enjoy life, resilience, balance, emotional flexibility and self-actualization. In this study, the factors contribute towards mental health problem among the students has been presented with different manifestation in comparison with prior studies, through ten key factors were investigated, namely self-evaluation, living style, health, learning environment, parent, peer, lecturer, academic, financial and the lost. The finding indicated that self-evaluation is the key player affected students mental health problem in depress, anxiety and stress. Self-evaluation is refer to the ability to recognize their own abilities and the process of this recognition. In other words, it reflects to an individual perspective towards himself/herself This condition may due to the low self-confidence and pressure of examinations.

Performance in academic life demands all aspects of wellbeing. Those who are physically and psychologically stable are expected to perform better compared to those who are not physically, mentally and psychologically fit. In short, those who are experiencing psychological problems, such as depression, anxiety and stress, may face problems in managing their academic performance. Psychological stability is indeed an important predictor that could contribute to high academic achievement. However, the numbers of students that need a specific intervention contribute quite a portion among the technical students. The obtained figure shows that during the examination period, near to 5 out of 100 students tend to have stress problem, about 21 out of 100 students tend to have anxiety problem, nearly 10 out of 100 students tend to have depress problem. With the worldwide education concept "NO ONE SHOULD LEFT BEHIND", these category students need various mechanisms to solve their mental health problems. Depression, stress, and anxiety are among the psychological problems that are common among students. The situation where university students left university without finishing their degrees; just due to inability to manage these psychological conditions, especially to cope with stress is unwanted. For example, it has been found that students' performance in school, college, and university is influenced by the symptoms of depression, stress, and anxiety which could lead to difficulties in concentration, lack of motivation and interest, poor attendance, and physical health such as headache and fatigability. These conditions will influence students' academic achievement. The individual should be given guidance and support by those around him or her, especially parents, to rebuild his or her confidence. Parents should extend support and encouragement to children with mental health problems to prevent the condition from worsening as mention by Dr. Mohd Suhaimi Mohamad [5].

5. Conclusion

In conclusion, the mental health issue experienced by UTHM students from seven faculties are at the normal levels. However, those experiencing severe and extremely severe level for depress, anxiety and stress showing the symptom of increment. The findings in this study showed that the dominant factor highly contribute towards mental health problems across seven faculties is self-evaluation. On the other hand, students from non-engineering faculties is suffering higher mental health problem compare to those from engineering faculties. Therefore, the issue of mental health problems should be given

serious awareness by all parties especially university counsellor and parent in order to help student to increase their self-evaluation before the mental condition becomes more severe phenomenon by referring to the profile produced in this paper.

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References

- [1] Lee, M.F. and Ahamad, R.J. (2016). Mind Matters: An Approach To Increase Understanding Of Mental Illness Among The Engineering Students. ARPN Journal of Engineering and Applied Sciences, Vol. 11, No. 24, December 2016, pg.14121-14124. Asian Research Publishing Network
- [2] The Star Online. More Malaysians expected to suffer from mental illness by 2020. - 1 July 2016. Retrive from <http://www.thestar.com.my/news/nation/2016/07/01/moremalaysians-expectedtosufferfrommentalillnessby2020/>
- [3] Lovibond, S.H. & Lovibond, P.F. (1995). Manual For The Depression Anxiety Stress Scales, (2nd. Ed.) Sydney: Psychology Foundation. ISBN 7334-1423-0.
- [4] Ministry of Health Malaysia (2015). 2015 National Health and Morbidity Survey Report. Retrive from <http://www.iku.gov.my/images/IKU/Document/REPORT/nhmsreport2015vol2.pdf>
- [5] BERNAMA. Mental health of Malaysian students cause of worry: Health Ministry - 12 SEPTEMBER 2016 – Retreive from <http://www.nst.com.my/news/2016/09/172683/mentalhealthmalaysianstudentscauseworryhealthministry>
- [6] Menon, J. (2016) Depression on the rise as Malaysians burn out from stress, expert warns. PETALING JAYA, March 24. 2016. Retreive from <http://www.themalaymailonline.com/malaysia/article/depressionontheriseasmalaysiansburnoutfromstressexpertwarns>
- [7] Vitasaria, P.; Abdul Wahabb, M.N.; Herawanc,T. & Kumar Sinnaduraib, S. (2011). Representation of social anxiety among engineering students. Procedia - Social and Behavioral Sciences 30 (2011) 620 – 624.
- [8] Deziel, M.; Olawo, D.; Truchon, L. & Golab, L. (2013). Analyzing the Mental Health of Engineering Students using Classification and Regression. Retreive from http://www.educationaldatamining.org/EDM2013/papers/rn_paper_34.pdf.