A Study on Selected Demographic Characteristics and Mental Health of Young Adults in Public Higher Learning Institutions in Malaysia

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Abstract

Early adulthood is the transitional period between adolescence and adult life. As with other general young adult population, university students carry along several of life's issues such as a personal and social adjustment, academic and career concerns, stress and other related psychosomatic issues which may lead to an unhealthy mental condition. These "life baggage" and stress must be managed well in order to prevent them from interfering with normal adult development and growth processes. The purpose of this study is to determine the association between several selected demographic characteristics and the mental health status of young adults studying in public Malaysian universities. A total of 1467 respondents were recruited using a multistage cluster sampling. General Health Questionnaire (GHQ-12) (Goldberg, 1978) was the research tool utilised to assess the undergraduates' mental health status. Findings indicate that a majority of undergraduates exhibit a healthy mental state while a minority has some mental health concerns. One-way ANOVA tests showed that the mental health of undergraduates in this study differed in terms of ethnicity, year of study and academic field. In conclusion, these findings can assist student development personnel and academicians in enhancing their understanding of the current mental health status of undergraduate students and the demographic factors that relate to it.

Keywords: Demographic characteristics, Mental health and undergraduate

1. Introduction

Mental health is an important part of a person's life besides physical, spiritual and financial well being It is believed that a healthy mind is key to an individual attaining satisfaction in life. (Swami, Chamorro-Premuzic, Sinniah, Maniam, Kannan, Stanistreet & Furnham, 2007). The World Health Organization (WHO) Report (2003), defined mental health as an individual's state of well-being when he realizes his abilities, has the ability to cope with the normal stresses of life, able to work productively and fruitfully and can contribute to his community. As such, issues concerning mental health should be given due attention since an individual needs to deal with various

kinds of stressors in his life, perform daily tasks with ease and fulfil responsibilities to his family and the nation at large.

According to the same WHO report, mental health issues are expected to increase by 15% by 2020. Additionally, the number of cases documenting mental health problems among university students are on the increase each year (Zivin, Eisenberg, Gollust & Golberstein, 2009). Students studying in institutions of higher learning are more at risk of developing mental health problems or disorders compared with their peers of similar age groups in the general population. (Hamdan-Mansour, Halabi & Dawani, 2009; Stewart-Brown, Evans, Patterson, Petersen, Doll, Balding & Regis, 2000; Humphrey, McCarthy, Popham, Charles, Garland, Gooch, Hornsby, Houghton & Muldoon, 1998). Obviously, as university undergraduates are considered to be the country's leaders of the future, these issues need to be looked into with utmost urgency.

Various studies have been carried out in different parts of the world to identify factors that impact on students' mental health since poor mental health has been recognised as the leading cause of suicidal behaviour, a sense of helplessness (Kay, Li, Xiao, Nokkaew & Park, 2009) and lower academic achievements (Puskar & Bernardo, 2007). However, a review of literature on the subject reveals that information regarding mental health among undergraduates were derived from studies done outside Malaysia (McKinney, 2005; Sreeramareddy, Shankar, Binu, Mukhopadhyay, Ray & Menezes, 2007; Hamdan-Mansour *et al*., 2009; Uner, Ozcebe, Telatar & Tezcan, 2008; Abdulghani, 2008; Biro, Balajti, Adany & Kosa, 2009). In Malaysia, research on mental health was more focused on medical students rather than on the general students population. (Zaid, Chan & Ho, 2007; Sherina, Lekhraj & Nadarajan, 2003). This lack of information entails that no clear image or comprehensive understanding of the mental health status among Malaysian students is available Hence, it was for this reason that this research was undertaken.

Bronfenbrenner's ecological systems theory states that, psychological health is affected by different structures of the environment (Bronfenbrenner & Morris, 1998). The theory puts forward five systems of environment i.e. microsystem, mesosystem, exosystem, macrosystem and chronosystem. Each system has a reciprocal relationship and affects the individual's psychological health in different ways. According to previous studies, factors that influence mental health are demographic backgrounds such as age and gender (Yen, Hsu, Liu, Huang, Ko, Yen & Cheng, 2006), academic field and academic year (Dahlin, Joneberg, & Runeson, 2005), personality traits (Goodwin & Friedman, 2006) and loneliness (Wang, Yuen & Slaney, 2009). These factors either increase or decrease the mental health status of undergraduate students. These factors are part of the structure of environments in ecological theory.

Previous studies have revealed that a certain proportion of university students experienced mental health problems. The studies have also called for serious attention to be given in terms of specific intervention to be undertaken by university authorities. This is important as mental health problems will lead to poor academic performance. This research was carried out to identify selected demographic factors that contribute to a students' mental health. The objectives of this study is to determine the association between gender, ethnicity, academic field of study, year of study and the mental health of undergraduates in Malaysian public universities**.**

2. Methodology

2.1 Sample

The respondents consisted of 1467 undergraduates enrolled at five public universities in Malaysia i.e. Universiti Putra Malaysia (UPM), Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM), Universiti Malaya (UM) and Universiti Malaysia Sabah (UMS). The sample of respondents were calculated based on G* Power 3 Software (Faul, Erdfelder, Lang & Buchner, 2007). At the confidence interval level of .95, with the power of 95% and the alpha of .05 and with small effect size of .02, calculations, found an estimated sample size of 1229. Thus, the total number of respondents recruited for this study was sufficient to represent the young adult population studying in Malaysian public universities. A multistage cluster sampling was utilized to recruit the respondents based on their field and year of study.

2.2 Procedures

A self-administered questionnaire was used for data collection. A pilot test was administered to a group of undergraduate students to determine whether the questionnaire was appropriate for usage. Permission was then sought from the respective deans of faculty or school to distribute the questionnaires to targeted respondents. Researcher and enumerators distributed the questionnaire to the respondents during class hours.

The researcher also gave a brief explanation regarding the purpose of the study, reminded their respondents of their rights to not answer any question and how to fill in the questionnaire. The questionnaire comprised of two sections

namely mental health and demographic details. The respondents were also told that their response would be treated with utmost confidentiality. The questionnaire took only 30 minutes to complete.

2.3 Measures

2.3.1 Demographic Characteristics

A general demographic characteristics form was used to obtain respondents' information such as age, gender, ethnicity, religion, field of study and year of study.

2.3.2 Mental Health Measure

Mental health status was assessed using General Health questionnaire (GHQ-12) by Goldberg (1978). The GHQ-12 is a reliable instrument that has been used in Malaysia to measure psychological health among undergraduates (Nor & Rozumah, 2010). The scale consists of 12 items and was rated on the 4-point Likert scale, ranging from 1 (better than usual) to 4 (much less than usual). In this study, the bimodal method was applied (0-0-1-1) and the cut-off point of 5/6 was used. Scores below 5 indicate a positive mental health while scores above 6 indicate a mental health problem. Higher scores indicate a poor mental health status and potential of mental health issues.

2.4 Data Analysis

Data was analyzed using the Statistical Package for the Social Science (SPSS version 16). Reliability analysis was performed to determine the internal consistency of GHQ-12. The internal consistency of the GHQ-12 was tested using Cronbach's alpha value. Descriptive statistics (mean, standard deviation, minimum and maximum) and Bivariate Statistic such as t-test and one-way ANOVA analysis were used to answer the research objectives.

3. Results

3.1 Reliability

The Cronbach's alpha value of the GHQ-12 in this present study was 0.63. According to Nunnally (1976), Cronbach's alpha of 0.6 is sufficient to be an acceptable value for research purpose.

3.2 The Demographic Characteristics of undergraduates

The total sample comprised 21.9% of UPM undergraduates, followed by UMS (20.4%), UM (20.3%), USM (20.2%) and UKM (17.2%). A total of 892 respondents (61.3%) were female while 564 (38.7%) was male. The average age of respondents was 20.82 years (SD = 1.452) while the majority (57%) were in the 20 to 21 years old range, followed by 22 to 28 years old (27.5%) and 18 to 19 years old (15.5%). As for ethnicity, 57.4% were Malays, 28.7% Chinese, Sabahans or Sarawakians (8.7%) and Indians (4.7%). As for ethnicity, 60.3% of the respondents were Muslims, Buddhists (22.9%), Christians (12.2%) and Hindus (4.6%). In addition, 34.4% (n = 495) were social science undergraduates, 33.3% (n = 480) were science students and 32.3% (n = 466) were undergraduates in the technical field. Finally, 30.4% of undergraduates were First Year students, 33.3% were in their Second Year while 36.2% were Third year students.

3.3 The mental health of undergraduates

Table 1 presents the result of descriptive statistics for mental health status of undergraduates. On average, undergraduates in this study scored 4.436 (S. D = 2.444) on GHQ-12. The descriptive statistics shows that a majority (65.5%) of undergraduates' exhibit positive mental health (score 5 and below) while 34.4% has some possible indication of mental health problems and concerns (scored 6 and above).

3.4 The difference in mental health between male and female

Table 2 presents the result of t-test for difference in mental health status between male and female undergraduates. The t-test result shows that no significant differences of the mental health state between male and female undergraduates ($t = -.506$ and $p > .05$). However, males (Mean = 4.396 and S.D = 2.504) displayed slightly better mental health compared to females (Mean = 4.463 and S.D = 2.413).

3.5 The differences in mental health by ethnicity

Table 3 presents the result of one-way ANOVA for difference in mental health according to ethnic group. The one-way ANOVA shows that there is a significant difference in mental health between the various ethnic groups ($F = 3.534$, $p \leq .05$) with Indian (Mean = 4.044 and S.D = 2.195) having better mental health than Malays (Mean = 4.310 and S.D = 2.438), Sarawakians and Sabahans (Mean = 4.413 and S.D = 2.350) and Chinese (Mean = 4.743 and S.D = 2.499).

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3.6 The differences in mental health by field of study

Table 4 presents the result of the one-way ANOVA for difference in mental health in terms of field of study. From the one-way ANOVA, it can be seen that mental health status differs between fields of study (F = 5.793, p=.003). Social science (Mean = 4.154 and S.D = 2.365) undergraduates have better mental health than technical (Mean = 4.475 and S.D = 2.522) and science undergraduates (Mean = 4.683 and S.D = 2.449).

3.7 The differences in mental health by year of study

Table 5 presents the result of the one-way ANOVA for difference in mental health by year of study. There was a significant difference in mental health among undergraduates according to year of study (F = 3.926, p = .008). Third Year (Mean = 4.220 and S.D = 2.340) having the best mental health score, followed by First Year (Mean = 4.363 and S.D = 2.444) and Second Year (Mean = 4.721 and S.D = 2.540).

4. Discussion

Firstly, this study reveals that a majority (65.6%) of undergraduates are mentally healthy. Only 34.4% showed a signs of potential mental health problems. This means that a third of the Malaysian undergraduate population in public universities are experiencing anxiety and worries, confronted with issues of social dysfunction and confidence levels in their daily life. However, the proportion of undergraduates in this study experiencing mental health problems or above the GHQ-12 threshold is lower compared to the study done by Zaid *et al*., (2007) and Sherina *et al*., (2003). Nevertheless, respondents in those studies were medical students and thus were not representative of the overall general undergraduate population in Malaysian universities.

Secondly, the study found that the mental health state of undergraduates was different in terms of several demographic characteristics except for gender. Male undergraduates showed better mental health status than females but the difference was not statistically significant. This finding was similar with the results of previous study done by Song, Huang, Liu, Kwan, Zhang, Sham & Tang (2008), Biro *et al*., (2009), Pavot, Fujita & Diener (1997), Zaid *et al*., (2007) and Sherina *et al*,. (2003).

Thirdly, the different mental health status among the various ethnic groups was found to be statistically significant. Indian undergraduates displayed better mental health in comparison to their Malay, Sabahan or Sarawakian and Chinese counterparts. However, this finding contradicted the study conducted by Sherina *et al*., (2003) which claimed that there was no difference in emotional disorder amongst Indian, Malay, Chinese and medical students of other ethnicity in a Malaysian university. Taking religion into consideration, these present findings also contradicted with the findings from a study conducted by Muhamad and Jaafar (2009) that the subjective well-being of Malaysian youths does not differ despite their different beliefs.

Fourthly, this study found that there was a significant difference in mental health among undergraduates in the different fields of study. Social science undergraduates were found to be mentally healthier compared to technical and science undergraduates. Social science undergraduates were better able to cope with stress. This supports the findings of Dahlin *et al*., (2005) and Chen, Wong, Ran and Gilson (2009) that science students exhibit lowest levels of psychological health.

Lastly, this study also reveals that mental health of undergraduates was significantly different when it comes to year of study. Second Year students have the lowest level of mental health compared to First Year students and Third Year undergraduates. However, this finding contradicted with previous studies that found first year students as less healthy in terms of psychological health (Dahlin *et al*., 2005; Abdulghani, 2008; Zaid *et al*., 2007). However, this present finding was similar with Chen *et al*., (2009) who stated that second year undergraduates have the highest level of stress.

5. Conclusion and Recommendation

In conclusion, this study shows that mental health of Malaysian undergraduates differed in term of ethnicity, year of study and field of study except for gender. In addition, the study's significant results were in line with other previous studies. These findings provide some indication on the groups of undergraduates that would benefit from intervention with the aim of improving their mental health. This can act as a guide to university administrators, counsellors, governmental and private agencies to enable them to understand the state of mental health among Malaysian undergraduates. Additionally, in light of this findings, even though a majority of the undergraduates were mentally healthy, the proportion of undergraduates exhibiting mental health problems must be given due attention. This is important since previous studies indicate that poor mental health status have a negative effect on students' academic performance (Puskar & Bernardo, 2007), and promote negative behaviour and hopelessness (Kay *et al*., 2009).

A structured developmental and preventive program can be organized to address the issue of poor mental health among undergraduates. Specialized intervention programs such as stress management, time management, study techniques and coping skills workshop can be organized for the targeted groups. In addition, mental health services offered to undergraduates should be focusing on risky groups and especially tailored to the needs of science and second year undergraduates as they have been identified as such. University counselling services must also extend their working hours and be more flexible because most psychological issues do not occur during regular ordinary office hours. Counselling programs and clinics can be jointly organised at faculty level where attention can be given to the students in the at risk groups.

Like all young adults undergraduate students are constantly learning to adapt to their surroundings, to take added responsibilities, establishing personal identities and developing interpersonal relationship with their peers, academic staffs and society. Along the way they will encounter academic as well as social stresses and need help in order to manage their study. Therefore, undergraduates who exhibit clear indication of mental health problems need immediate help especially from those responsible for student welfare. University authorities can play a more pro-active role by creating awareness on the importance of mental or psychological health through information printed in student handbooks and through purposeful on-ground campaigns and via websites. Finally research on mental health among undergraduates should be continuously carried out to improve and broaden the scope of mental health in Malaysian universities.

References

Abdulghani, H. M. (2008). Stress and depression among medical students: A cross sectional study at a medical college in Saudi Aarabia. *Pakistan Journal of Medical Sciences*, 24(1), 12- 17.

Biro, E., Balajti, I., Adany, R. & Kosa, K., (2009). Determinants of mental well-being in medical students. *Social Psychiatry and Psychiatric Epidemiology*. Retrieved November 9 2009, from [Online] Available: http://www.springerlink.com/content/5587832m1u83601q/fulltext.pdf. doi:10.1007/s00127-009-0062-0

Bronfenbrenner, U., & Morris, (1998). The ecology of developmental processes. In W. Damon & R. Lerner (Eds), *Handbook of child psychology: Vol 1. Theoretical Models of human development* (5th ed., pp. 993-1028). New York: Wiley.

Chen, H., Wong, Y-C., Ran, M-S. & Gilson, C. (2009). Stress among Shanghai University Students: The Need for Social work Support. *Journal of Social Work, 9*(3), 323-344.

Dahlin, M., Joneberg, N. & Runeson, B. (2005). Stress and depression among medical students: a cross-sectional study. *Medical Education*, 39, 594-604.

Faul, F., Erdfelder, E., Lang, A. G. & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.

Goldberg, DP. (1978). *Manual of the General Health Questionnaire*. Windsor: NFER-Nelson.

Goodwin, R. D. & Friedman, H. S. (2006). Health Status and the Five-factor Personality Traits in a Nationally Representative Sample. *Journal of Health Psychology,* 11(5), 643-654.

Hamdan-Mansour, A. M., Halabi, J. O. & Dawani, H. A. (2009). Depression, hostility, and substance use among university students in Jordan. *Mental Health and Substance Use: Dual diagnosis,* 2(1), 52-63.

Humphrey, R., McCharthy, P., Popham, F., Charles, Z., Garland, M., Gooch, S., Hornsby, K., Houghton, C. & Muldoon, C. (1998). Stress and the Contemporary Student. *Higher Education Quarterly*, 52(2), 221-242.

Kay, N., Li, K., Xiou, X., Nokkaew, N. & Park, BH. (2009). Hopelessness and Suicidal Behaviour among Chinese, Thai and Korean College Students and Predictive effects on the World Health Organization's WHOQOL-BREF. *International Electronic journal of Health Education*, 12, 16-32.

McKinney, K. (2005). *Mental Health among UCLA Undergraduates*. California: Ashe Student Health and Wellness Center, Student Affairs Information and Research office.

Muhamad, H. & Jaafar, J. L. (2009). The Relation of Personality to Subjective Well Being in Malaysian Youths. *International Psychology Bulletin, 13*(1), 10 -15.NFER-Nelson.

Nor, S. Z. & Rozumah, B. (2010). Using the 12-item General Health Queationnaire (GHQ-12) to assess the psychological health of Malaysian college students. *Global Journal of Health Science*, 2(1), 73-80.

Nunnallyn, J. C. (1978). *Psychometric theory,* New York: McGraw-Hill.

Pavot, W., Fujita, F. & Diener, E. (1997). The Relation Between Self-aspect Congruence, Personality and Subjective Well-Being. *Personality and Individual Differences,* 22(2): 183-191.

Puskar, K. R. & Bernardo, L. M. (2007). Mental Health and Academic Achievements: Role of School Nurses. *Journal for Specialists Pediatric Nursing*, 12(4), 215-223.

Sherina, M. S., Lekhraj, R. & Nadarajan, K. (2003). Prevalence of emotional disorders among medical students in a Malaysian university. *Asia Pasific Family Medicine*, 2, 213-217.

Song, Y., Huang, Y., Liu, D., Kwan, S.H., Zhang, F., Sham, P. C. & Tang, S. W. (2008). Depression in College: Depressive Symptoms and Personality factors in Beijing and Hong Kong College Freshmen. *Comprehensive Psychiatric,* 49, 496-502.

Stewart-Brown, S., Evans, J., Patterson, J., Petersen, S., Doll, H., Balding, J. & Regis, D. (2000). The health of students in institutes of higher education: an important and neglected public health problem?. *Journal of Public Health Medicine,* 22(4), 492-499.

Swami, V., Chamorro-Premuzic, T., Sinniah, D., Maniam, T., Kannan, K., Stanistreet, D. & Furnham, A. (2007). General health mediates the relationship between loneliness, life satisfaction and depression. *Social Psychiatry and Psychiatric Epidemiology,* 42, 161-166.

Uner, S., Ozcebe, H., Telatar, T. G. & Tezcan, S. (2008). Assessment of Mental Health of University Students with GHQ-12. *Turkish Journal of Medical Sciences*, 38(5), 437-446.

Wang, K. T., Yuen, M. & Slaney, R. B. (2009). Perfectionism, Depression, and Life Satisfaction: A study of High School Students in Hong Kong. *The Counseling Psychologist*, 37, 249-274.

World Health Organization. (2003). *The Mental Health Context: Mental Health Policy and Service Guidance Package*. Geneva: WHO.

Yen, CF., Hsu, CC., Liu, SC., Huang, CF., Ko, CH., Yen, JY. & Cheng, CP. (2006). Relationships among mental health status, social context, and demographic characteristics in Taiwanese aboriginal adolescents: A structural equation model. *Psychiatry and Clinical Neurosciences,* 60, 575-583.

Zaid, Z. A., Chan, S. C. & Ho J. J. (2007). Emotional disorders among medical students in a Malaysian private medical school. *Singapore Medical Journal*, 48(10), 895-899.

Zivin, K., Eisenberg, D., Gollust, S. E. & Golberstein, E. (2009). Persistence of mental health problems and needs in a college student population. *Journal of Affective Disorders,* 117, 180-185.

Table 1. Descriptive statistics of mental health among Malaysian undergraduates (n = 1461)

Variable	n (%)	Mean	S.D	Min	Max
Mental Health		**4.436**	**2.444**	**0**	**12**
≤ 5	958 (65.6)				
≥ 6	503 (34.4)				

Note: S.D = Standard Deviation, Min = Minimum, Max = Maximum

Table 2. T-test result for difference in mental health by gender

Variable	Gender		t	Sig. (2-tailed)
	Male (Mean)	Female (Mean)		
Mental Health	4.396	4.463	-.506	.613

Note: p > .05

Table 3. One-way ANOVA result for difference in mental health by ethnicity

Variable	Ethnicity				ANOVA (F)	Sig. (2-tailed)
	Indian (mean)	Malay (mean)	Sabahan or Sarawakian (mean)	Chinese (mean)		
Mental Health	4.044	4.310	4.413	4.743	3.534*	0.014

Note: *p ≤ .05

Table 4. One-way ANOVA for difference in mental health by fields of study

Variable	Field of Study			ANOVA (F)	Sig. (2-tailed)
	Social Science (mean)	Technical (mean)	Science (mean)		
Mental Health	4.154	4.475	4.683	5.793*	.003

Note: *p ≤ .05

Table 5. One-way ANOVA for difference in mental health by years of study

Variable	Year of Study			ANOVA (F)	Sig. (2-tailed)
	First Year (mean)	Second Year (mean)	Third Year (mean)		
Mental Health	4.363	4.721	4.220	5.528*	.004

Note: *p ≤ .05

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