PREVALENCE OF DEPRESSION AMONG UNIVERSITY STUDENTS: A CROSS-SECTIONAL STUDY

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Abstract:
The prevalence of depression among Malaysians is on the rise. The current state of work and social pressures caused the depression to be declared as the common mental illness among Malaysian by 2020. This mental illness may cause mental health problems among university students due to stress resulted from stressful events in the university environment. Without proper treatment, this can cause disability and even suicide. However, knowing the fact that depression is a treatable illness, therefore, address the illness, and develop preventive strategies in managing mental wellbeing is needed. The primary objective of the present study is to determine the prevalence and severity of depression among university students in Malaysia. This quantitative and cross-sectional study employed 175 undergraduate students from a public university in a rural area. Depression and the severity of the depression were assessed using the validated Patient Health Questionnaire (PHQ-9). Descriptive statistics were used to analyse the data to answer research objectives. Approximately 23.43% of participants experienced depression, which included 1.68% of mild depression, 8.98% of moderate depression, and moderately severe depression, and the remaining 3.37% of severe depression. A considerable proportion of undergraduate students with depression found in this study has called upon the management of the university to pay serious and priority attention to develop psychosocial counselling or targeted intervention for identified depressed students.

Keywords:
Depression, Mental Health, Undergraduate Students, Public University
Introduction

Today, depression is a topic of interest in society. It has become the prominent cause of mental health problem worldwide (World Health Organization, 2019). The latest figure estimation indicates that more than 264 million individuals in the world are suffering from depression. Depression is a disorder characterized by a person who experiences prolonged sadness, fatigue and absence of energy, irritability as well as a loss of interest in doing daily activities (Abdul Rahman, et al., 2019). Generally, every single individual can experience depression regardless of age or gender. It can last for weeks, months or even years. Most importantly, depression is linked with a reduction of quality of life, increased morbidity and mortality. At its worst, this mental illness can lead to suicide, in which nearly 800,000 people committed suicide every year.

There are many associated symptoms of depression. The symptoms include experiencing trouble in sleeping, lack of focus, difficult to decide, absence of motivation, withdrawal from social activities, low confident, sadness and fear for no reason. Those with serious cases are usually in need of psychiatrists and clinical psychologists help. Therefore, it is utmost important to ensure that those with the associated symptoms can be treated as early as the common symptoms detected. However, there are misconceptions regarding this disease which, many believe, depression cannot be cured.

In Malaysia, this mental illness is under exploration due to high prevalence and morbidity cases reported recently (Yusoff, Rahim & Yaacob, 2010; Yusoff, 2013; Shamsuddin, et al., 2014; Ng, 2014; Md. Ashraful, 2018). Nearly 2 per cent of the entire population in Malaysia aged 16 years and above suffered from current depression (Ministry of Health, Malaysia, 2016). At the same time, an increasing prevalence trend is also found among university students (Reavley & Jorm, 2010; Ibrahim, Kelly & Glazebrook, 2012; Shamsuddin, et al., 2014). Depression is the main psychological problem of university students in the country (Tapas & Santosh, 2017).

Among all, undergraduate students are commonly affected group reported by precedent studies (Yusoff, Rahim & Yaacob, 2010, Shamsuddin, et al., 2014). These undergraduate students faced challenges in adjusting their new lives in a university environment not only the independent living but also the academic challenges, especially among students in the first year of study (Brandy, et al., 2015; Rahul and Vikas, 2018). Despite the excitement, students are not well prepared to face the challenges of the university lives.

Usually, every undergraduate student responds differently to a new environment and stressful events when enrolled in university life. This adjustment process usually begins at the beginning of the semester after enrolment in the university. Struggling in attending classes, finding friends, fit in with the new environment, independent lives and the academic and university culture have caused them to experience some amount of stress. The transition from secondary school to university lives may affect them in not only the biological but also physical, spiritual and psychological aspects. Unfortunately, those who faced difficulty to manage the challenges due to the gap between reality and expectation, poor social support, financial and academic struggles and so on may experience emotional distress. This emotional distress may lead to psychological problems such as depression, anxiety and trauma.
Certain exemptions are implemented by the management of universities for certain cases involving students who have been diagnosed with depression. However, in many cases, treated students through counselling session by psychologists, psychiatrists or other licensed professionals will either withdraw from their studies, graduate or hold an outstanding post in their career. Since the potential roles played by undergraduate students in society, it is significant to study their depression problem. Therefore, several studies were conducted to estimate the prevalence and severity of depression among university students including this present study. Many previous studies in Malaysia also were conducted among university students in urban areas, while rural areas are still under the higher need for an investigation. This study bringing the gaps by determining the prevalence and severity of depression among undergraduate students of a university in a rural area, Malaysia to seek for prevention and cure efforts.

**Objectives**

This empirical study was conducted to focus on the following objectives:

- To determine the prevalence of depression among undergraduate students.
- To determine the level or severity of depression among undergraduate students.
- To study the relationship between the year of study and depression among university students.

**Methods**

This present study is a quantitative and cross-sectional study based on the survey method. The researcher attempted to gather data at one point in time to find the answer for formulated research objectives. The perception and personal view of respondents were considered.

**Sample**

175 university students from one university in Malaysia has been selected as participants for the study. All participants were selected based on non-random purposive sampling with the following inclusion criteria:

i) Undergraduate students of Faculty of Business and Management
ii) Active students in the current semester
iii) Full-time undergraduate students

**Materials**

This quantitative study utilized self-assessment and self-administered survey instruments to measure the presence of depression symptoms. The survey started with Section A; demographic information questions such as gender and the students’ current year of study. The self-assessment survey was adapted from the Patient Health Questionnaire (PHQ-9) to represent Section B of the survey which previously has been proof to be a reliable and valid tool to measure the level of depression (Pillaveetil Sathyadas, et al., 2018; Kurt, Robert & Janet, 2001). The PHQ-9 assesses the prevalence of depression and the level or severity of depression among participants. The scale was used to detect depression symptoms among participants. The PHQ-9 consists of nine questions. Each statement in the survey asked the participants to evaluate their feeling on a 4-point scale; not at all, several days, more than half the days and
nearly every day. The following Table 1 represents the interpretation of the total scores of all nine PHQ-9 questions.

| Total Score | 0 – 4 | 5 - 9 | 10 - 14 | 15 - 19 | 20 – 27 |
|-------------|-------|-------|---------|---------|---------|
| Level of Depression | Minimal Depression | Mild Depression | Moderate Depression | Moderately Severe Depression | Severe Depression |

**Data Collection**
The PHQ-9 was completed by all participants to measure the self-assessed depression and level or severity of depression. Data were collected through all faculties of a public university in Malaysia.

**Statistical Analysis**
Outliers were checked and observed before analysing the data. However, no participant was removed and excluded from the analysis as the data was free from any outliers. Descriptive analysis was carried out using Statistical Package for Social Science (IBM SPSS version 23.0) software to calculate the prevalence of depression among the students.

**Results and Discussions**
This study focused on determining the prevalence of depression and the level or severity of depression symptoms among undergraduate students.

**Demographic Information of Participants**
A total of 175 responses from undergraduate students were analysed for this study. Table 2 summarized the demographic information of participants in the study. There were 24 (13.71%) male and 151 (86.29%) female participants involved in the study. 71 students (40.57%) were in the first year of study, 54 students (30.86%) were in the second year of study and the remaining 50 students (28.57%) were in the third year of the study period.

| Characteristics | Frequency (n) | Percentage (%) |
|-----------------|---------------|----------------|
| i) Gender       |               |                |
| Male            | 24            | 13.71          |
| Female          | 151           | 86.29          |
| ii) Year of Study|               |                |
| 1st Year        | 71            | 40.57          |
| 2nd Year        | 54            | 30.86          |
| 3rd Year        | 50            | 28.57          |

**Level or Severity of Depression among Undergraduate Students**
This study was carried out to see the prevalence of depression among undergraduate students in a university. There are five levels of depression suffered by the participants. Table 3 summarizes the analysis of the administered survey (PHQ-9). Analysis in Table 3 showed 23.43 per cent (41 students) of total participants (175) who answered the survey had depression. Among all depressed participants, 7.31 per cent (1.71 per cent of all participants) had mild
depression, 39.02 per cent (9.14 per cent of all participants) had moderate depression and moderately severe depression and 14.63 per cent (3.43 per cent of all participants) had severe depression based on the PHQ-9 scale used. This finding is consistent with a study conducted by Shamsuddin, et al. (2013) who reported that moderate depression is common among Malaysian students compared to other severity.

Moreover, the study noted a considerable proportion of depression among female students than male students with 33 females (80.49%) and 8 males (19.51%). From Figure 1, it is observed that for all four level of depression, depression is common among female students than male students. This finding implies that female students are more depressed than male students. Previous empirical studies by Ghaedi and Mohd Kosnin (2014), Khasakhala, et al. (2013), Md. Ashraful, et al. (2018) and Rahul and Vikas (2018) recorded the same prevalence result with this current study in which they found that depression is the prevalent disorder among female students. Sharma and Kirmani (2015) added female students reported more depressive symptoms than male students.

Table 3: Level of Depression based on Gender and Year of Study

| Level of Depression | Gender | Year of Study |
|---------------------|--------|---------------|
|                     | Male   | Female        | 1st Year | 2nd Year | 3rd Year |
| Depression (23.43%) | 8      | 33            | 21       | 8        | 12       |
| Mild Depression (7.31%) | 0      | 3             | 2        | 0        | 1        |
| Moderate Depression (39.02%) | 3      | 13            | 9        | 2        | 5        |
| Moderately Severe Depression (39.02%) | 4      | 12            | 11       | 1        | 4        |
| Severe Depression (14.63%) | 1      | 5             | 4        | 1        | 1        |
| Not Depressed (76.57%) | 16     | 118           | 50       | 46       | 38       |

Figure 1: Depressed Students based on Level of Depression

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Results also suggested that most of the depressed students were in the first year of study. 11 out of 21 depressed first-year students experienced moderately severe depression. This finding is consistent with Brandy, et al. (2015) and Rahul and Vikas (2018), in which the study found that first-year students reported the main group with depression. Probably, the current study suggests that first-year students experienced study difficulties and stress in adjusting their university life. They faced academic burdens such as continuous assessment in classes, competition with other students as well as lecturers and family expectations. However, this finding is against some of the empirical studies. For instance, Md. Ashraful, et al. (2016) in their study found that the second-year students experienced more depression than other students.

**Limitations**
There are several limitations noted in this empirical study. Firstly, the findings of the study may be subjected to response bias since the data was collected using a cross-sectional and the self-assessment method. Secondly, the findings of the study may not be generalized to the whole nation since the data was collected from only one public university. Thirdly, this study only reported the prevalence and severity of depression among undergraduate students and did not consider factors related to students’ depression. Fourth, the proportion of female and male students taken as sample (participants) in the study is uneven.

**Conclusion**
This study noticed a substantial number of undergraduate students with depression problems (23.43%). Among all 41 students with depression, 3 students have developed mild depression, 16 students have suffered from moderate depression, 16 students have developed moderately severe depression and 6 students are affected by severe depression. It is also found that depression is prevalent among female students and students in the first year of study. The current study provides the opportunity for the policymakers and management of the universities to pay serious and special attention to students. The management of universities needs to be concerned and provide students with mental health education such as stress management and emotional management in the university. This may help the students to self-identify and be aware of the symptoms that may prevent students from functioning as normal. Intervention can be designed to help the students in adjusting their readiness. A large scale studies that include participants from a diverse demographic background in the future could benefit society. This may include possible factors related to students’ depression.

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