

# Prevalence, Associated Factors, and Help-Seeking Behavior of Psychological Distress among International Students at the National University of Malaysia

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**Abstract**—Depression, anxiety, and stress are associated with decreased role functioning, productivity, and quality of life. International students are more prone to psychological distress as they face many stressors while studying abroad. The objectives of the study were to determine the prevalence and associated factors of depression, anxiety, and stress among international students, their help-seeking behavior, and their awareness of the available on-campus mental support services. A cross-sectional study with a purposive sampling method was performed on 280 international students at Universiti Kebangsaan Malaysia (UKM) between the age of 18 and 35 years. The Depression Anxiety Stress Scale-21 (DASS-21) questionnaire was used anonymously to assess the mental health of students. Socio-demographic, help-seeking behavior, and awareness data were obtained. Independent sample t-test, one-way ANOVA test, and multiple linear regression were used to explore associated factors. The overall prevalence of depression, anxiety, and stress among international students were 58.9%, 71.8%, and 53.9%, respectively. Age was significantly associated with depression and anxiety. Ethnicity showed a significant association with depression and stress. No other factors were found to be significantly associated with psychological distress. Only 9.6% of the international students had sought help from on-campus mental support services. Students who were aware of the presence of such services were only 21.4% of the participants. In conclusion, this study addressed the gap in the literature on the mental health of international students and provided data that could be used in intervention programs to improve the mental health of the increasing number of international students in Malaysia.

**Keywords**—Anxiety, depression, stress, help-seeking behavior, students.

## I. INTRODUCTION

DEPRESSION, anxiety, and stress are extremely prevalent among university students and their prevalence appears to be increasing [1]-[3]. These psychological problems have a negative impact on the students' quality of life, which in turn can interfere with the healthy adaptation and coping of the international students with the new environment. Psychological distress (PD) is a state of psychological discomfort usually experienced as sadness, depression, stress and anxiety [4], [5]. It often co-exists with somatic

complaints, chronic conditions and syndromes that have no medical explanation [6]. Risk factors for PD include stress-related factors and sociodemographic factors [5] such as; age, gender, race, marital status, socioeconomic level and study program [7].

International students are a high-risk group of people who need to be connected with care and support as it is very important to help them develop effective coping strategies for their mental health problems. Since international students come from different cultures and environments, care should be given to increase their awareness about mental illness and the professional help-seeking behavior for PD. It was demonstrated that more than two-thirds of young people did not seek help for their psychological problems [8]-[10]. Sometimes, students may not seek help from professionals since they are unaware of the presence of mental support services at their universities [11]. It has been historically reported that international students underutilized on-campus mental support services [12], [13].

Malaysia is a popular destination for international students worldwide. It was recognized by the United Nations Educational, Science and Cultural Organization (UNESCO) as one of the most 10 preferred destinations for post-secondary education among international students [14]. From a public health perspective, the early detection and prevention of mental health disorders among international university students is very crucial. Although previous studies have been conducted in Malaysia to assess prevalence and associated factors of depression, anxiety and stress among university students [7], [19], more studies are still needed to explore these associated factors, as well as the help-seeking behavior of PD among international university students in Malaysia. This will help to develop and evaluate more effective preventive and therapeutic interventions to these conditions and to encourage students to seek medical help.

## II. MATERIALS AND METHODS

### A. Study Design

Cross-sectional study was performed on 280 international students at UKM between the ages of 18 and 35 years.

### B. Sampling Method

Purposive sampling method was used to select the sample

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population of this study.

### C. Conflict of interest

The investigators declare that there is no conflict of interest.

### D. Methods

Participants were given hardcopies of a self-administered questionnaire which consisted of four sections: DASS-21 questionnaire, socio-demographic data, study program, and lastly, help seeking-behavior and awareness of on-campus mental support services. DASS-21 measures the characteristic and severity of a range of symptoms of depression, anxiety and stress [15]. DASS 21-item, which is a modified version of the original Scale of DASS-42, has many advantages as it is more convenient for people with poor concentration since it is shorter [16]. Cronbach's alpha scores showed reliability rates for the depression, anxiety, and stress scales at 0.91, 0.84, and 0.90 respectively in the normative sample [7]. The questionnaire consists of 21 items, a set of three self-report scales to measure the negative emotional states of depression, anxiety, and stress, as well as seven items for each psychological state [15]. The students were asked to score the extent of various symptoms they experienced over the past week. Each item was scored on a 4-point Likert scale (0 = Did not apply to me at all, 1 = Applied to me to some degree, or some of the time, 2 = Applied to me to a considerable degree, or a good part of time, and 3 = Applied to me very much, or most of the time) [7]. According to the manual guidelines [15], scores from each subscale were summed up and multiplied by two to meet the original 42 items. Each subscale score ranged between 0-42 and the severity scores are presented in Table I. Higher scores indicated greater levels of PD [15].

TABLE I  
LOVIBOND SCORING SCALE FOR PSYCHOLOGICAL MOOD

|             | Stress scale | Anxiety scale | Depression scale |
|-------------|--------------|---------------|------------------|
| Normal      | 0-14         | 0-7           | 0-9              |
| Mild        | 15-18        | 8-9           | 10-13            |
| Moderate    | 19-25        | 10-14         | 14-20            |
| Severe      | 26-33        | 15-19         | 21-27            |
| Very severe | ≥34          | ≥20           | ≥28              |

The sociodemographic data section consisted of five questions to gather information the participants such as age, gender, ethnicity, marital status, and monthly income. The study program section contained one question about study program and educational level of the participants while the help-seeking behavior and awareness of on-campus mental support services section included two dichotomous questions regarding help-seeking behavior for PD and awareness of the presence of on-campus mental support services.

### E. Data Analysis

Data analysis was performed using IBM Statistical Package for Social Sciences (SPSS) version 23. Data cleaning was done to remove any missing values. Age, gender, ethnicity, marital status, study program, socioeconomic level, help-seeking behavior and awareness were presented in number and

percentage while the outcome variables such as depression, anxiety, and stress scores were presented as mean and standard deviation. The independent samples t-test and the one-way ANOVA test were used to test the differences in means of depression, anxiety, and stress scores with study variables. Multiple Linear Regression was performed to assess the association of depression, anxiety and stress scores with all factors studied. We consider p value less than 0.05 to be statistically significant, with 95% of confidence interval.

## III. RESULTS AND DISCUSSION

### A. Characteristics of Study Participants

Table II represents the characteristics of study participants. The total number of participating respondents was 280 students.

TABLE II  
CHARACTERISTICS OF THE STUDY PARTICIPANTS

| Variables                 | Study participants (n=280) |             |
|---------------------------|----------------------------|-------------|
|                           | Number                     | Percent (%) |
| <b>Age Group:</b>         |                            |             |
| 18-20 years               | 25                         | 8.9         |
| 21-24 years               | 60                         | 21.4        |
| 25-35 years               | 195                        | 69.6        |
| <b>Gender:</b>            |                            |             |
| Female                    | 66                         | 23.6        |
| Male                      | 214                        | 76.4        |
| <b>Nationality:</b>       |                            |             |
| Africans                  | 20                         | 7.1         |
| Arabs                     | 168                        | 60.0        |
| Asians                    | 83                         | 29.6        |
| Others                    | 9                          | 3.2         |
| <b>Educational level:</b> |                            |             |
| Undergraduate             | 43                         | 15.4        |
| Postgraduate              | 237                        | 84.6        |
| <b>Study Program:</b>     |                            |             |
| Non-medical               | 237                        | 84.6        |
| Medical/paramedical       | 43                         | 15.4        |
| <b>Monthly Income:</b>    |                            |             |
| < 2000 RM                 | 140                        | 50.0        |
| 2000 – 5000 RM            | 115                        | 41.1        |
| > 5000 RM                 | 25                         | 8.9         |
| <b>Marital Status:</b>    |                            |             |
| Married                   | 112                        | 40.0        |
| Single                    | 168                        | 60.0        |

### B. Prevalence of Depression, Anxiety and Stress among Study Participants

TABLE III  
PREVALENCE OF DEPRESSION, ANXIETY, AND STRESS AMONG STUDY PARTICIPANTS

| Variables      | Depression |      | Anxiety    |      | Stress     |      |
|----------------|------------|------|------------|------|------------|------|
|                | Number     | %    | Number     | %    | Number     | %    |
| <b>Levels:</b> |            |      |            |      |            |      |
| Normal         | 115        | 41.1 | 79         | 28.2 | 129        | 46.1 |
| Mild           | 34         | 12.1 | 25         | 8.9  | 44         | 15.7 |
| Moderate       | 73         | 26.1 | 58         | 20.7 | 48         | 17.1 |
| Severe         | 34         | 12.1 | 45         | 16.1 | 52         | 18.6 |
| Very severe    | 24         | 8.6  | 73         | 26.1 | 7          | 2.5  |
| <b>Score:</b>  |            |      |            |      |            |      |
| Mean ± SD      | 13.1 ± 9.2 |      | 13.8 ± 9.2 |      | 16.6 ± 9.0 |      |
| Median         | 12.0       |      | 12.0       |      | 16.0       |      |
| Min – Max.     | 0.0 – 42.0 |      | 0.0 – 42.0 |      | 0.0 – 42.0 |      |

Table III reports the prevalence of depression, anxiety, and stress and their associated severity among study participants. Depression, anxiety, and stress were divided according to

severity into five groups which are; normal, mild, moderate, severe and very severe. The overall prevalence of depression, anxiety, and stress among international students were 58.9%, 71.8% and 53.9%, respectively.

#### C. Factors Associated with Depression, Anxiety and Stress among Study Participants

As shown in Table IV, depression and anxiety scores were significantly associated with age. Higher depression and anxiety scores were found among the age group of 21-24

years. The stress scores were not found to be significantly different by age group. However, the depression and stress scores show significant association with ethnicity, with higher depression and stress scores being recorded in the minority ethnic groups, followed by Arabs, Asians and lastly, Africans. While results show that the factors of gender, study program, monthly income, and marital status were not significantly associated with depression, anxiety, and stress.

TABLE IV  
ASSOCIATION BETWEEN DEPRESSION, ANXIETY AND STRESS AND CHARACTERISTICS OF STUDY PARTICIPANTS

| Association between Depression, Anxiety and Stress and Characteristics of Study Participants |                                    |                        |                  |                                    |                        |                  |                                    |                        |                  |
|--|------------------------------------|------------------------|------------------|------------------------------------|------------------------|------------------|------------------------------------|------------------------|------------------|
| Depression score   |                                    |                        |                  | Anxiety score                      |                        |                  | Stress score                       |                        |                  |
| Variables  | Mean $\pm$ Standard deviation (SD) | Test of significance   | P-value P < 0.05 | Mean $\pm$ Standard deviation (SD) | Test of significance   | P-value P < 0.05 | Mean $\pm$ Standard deviation (SD) | Test of significance   | P-value P < 0.05 |
| Age group  |                                    |                        |                  |                                    |                        |                  |                                    |                        |                  |
| 18-20  | 11.3 $\pm$ 6.8                     | one-way ANOVA<br>3.196 | 0.042            | 12.3 $\pm$ 6.8                     | one-way ANOVA<br>4.305 | 0.014            | 16.2 $\pm$ 7.9                     | one-way ANOVA<br>1.201 | 0.303            |
| 21-24  | 15.6 $\pm$ 8.5                     |                        |                  | 16.8 $\pm$ 6.7                     |                        |                  | 18.2 $\pm$ 8                       |                        |                  |
| 25-35  | 12.5 $\pm$ 9.5                     |                        |                  | 13 $\pm$ 9.5                       |                        |                  | 16.2 $\pm$ 9.4                     |                        |                  |
| Gender   |                                    |                        |                  |                                    |                        |                  |                                    |                        |                  |
| Male   | 13 $\pm$ 9.3                       | t-test<br>-0.103       | 0.918            | 13.9 $\pm$ 9.4                     | t-test<br>0.312        | 0.755            | 16.3 $\pm$ 9                       | t-test<br>-1.063       | 0.289            |
| Female   | 13.2 $\pm$ 8.7                     |                        |                  | 13.5 $\pm$ 8.6                     |                        |                  | 17.7 $\pm$ 8.6                     |                        |                  |
| Ethnicity  |                                    |                        |                  |                                    |                        |                  |                                    |                        |                  |
| Arabs  | 14.1 $\pm$ 9.5                     | one-way ANOVA<br>3.870 | 0.01             | 14.4 $\pm$ 9.6                     | one-way ANOVA<br>1.442 | 0.231            | 17.3 $\pm$ 9.5                     | one-way ANOVA<br>3.094 | 0.027            |
| Asians   | 12.1 $\pm$ 8.1                     |                        |                  | 13.5 $\pm$ 7.9                     |                        |                  | 16.6 $\pm$ 7.4                     |                        |                  |
| Africans   | 7.3 $\pm$ 7.8                      |                        |                  | 10 $\pm$ 8.7                       |                        |                  | 10.9 $\pm$ 9.1                     |                        |                  |
| Others   | 14.9 $\pm$ 10.6                    |                        |                  | 12.7 $\pm$ 13.6                    |                        |                  | 18 $\pm$ 11                        |                        |                  |
| Education level  |                                    |                        |                  |                                    |                        |                  |                                    |                        |                  |
| Undergraduate  | 12.7 $\pm$ 8                       | t-test<br>-0.273       | 0.785            | 13.6 $\pm$ 8.3                     | t-test<br>0.141        | 0.888            | 16.2 $\pm$ 7.4                     | t-test<br>-0.370       | 0.712            |
| Postgraduate   | 13.1 $\pm$ 9.4                     |                        |                  | 13.8 $\pm$ 9.4                     |                        |                  | 16.7 $\pm$ 9.3                     |                        |                  |
| Study program  |                                    |                        |                  |                                    |                        |                  |                                    |                        |                  |
| Non-medical  | 12.9 $\pm$ 9.2                     | t-test<br>-0.521       | 0.603            | 13.8 $\pm$ 9.4                     | t-test<br>0.069        | 0.945            | 16.5 $\pm$ 9                       | t-test<br>-0.379       | 0.705            |
| Medical/Paramedical  | 13.7 $\pm$ 8.9                     |                        |                  | 13.7 $\pm$ 8.3                     |                        |                  | 17.1 $\pm$ 9.5                     |                        |                  |
| Monthly income   |                                    |                        |                  |                                    |                        |                  |                                    |                        |                  |
| < 2000MYR  | 12.8 $\pm$ 8.9                     | one-way ANOVA<br>0.079 | 0.924            | 13.6 $\pm$ 8.7                     | one-way ANOVA<br>0.240 | 0.787            | 16.8 $\pm$ 8.9                     | one-way ANOVA<br>0.193 | 0.824            |
| 2000-5000MYR   | 13.3 $\pm$ 9.5                     |                        |                  | 13.7 $\pm$ 10.1                    |                        |                  | 16.3 $\pm$ 9.4                     |                        |                  |
| > 5000MYR  | 13 $\pm$ 9.3                       |                        |                  | 14.7 $\pm$ 8.4                     |                        |                  | 17.4 $\pm$ 8.3                     |                        |                  |
| Marital status   |                                    |                        |                  |                                    |                        |                  |                                    |                        |                  |
| Married  | 12.3 $\pm$ 9.8                     | t-test<br>-1.113       | 0.267            | 13.6 $\pm$ 9.7                     | t-test<br>-0.206       | 0.837            | 16.8 $\pm$ 9.5                     | t-test<br>0.173        | 0.863            |
| Single   | 13.5 $\pm$ 8.8                     |                        |                  | 13.9 $\pm$ 8.9                     |                        |                  | 16.6 $\pm$ 8.7                     |                        |                  |

Multiple linear regression was performed and the results are presented in Table VI. Depression was found to be significantly related with age group and ethnicity while each of anxiety and stress were found to be related to only one variable which was the age group and ethnicity, respectively.

#### D. Help-Seeking Behavior and Awareness of On-Campus Services among Study Participants

Help-seeking behavior among international students was represented in Fig. 1. It shows that only 9.6% of students had sought help for their PD from the available university services. As shown in Table V, depression, anxiety, and stress scores were significantly associated with help-seeking behavior. Students who had higher depression, anxiety and stress scores were more likely to seek professional help while students' awareness of the presence of on-campus mental support services was only 21.4%, as shown in Fig. 2.

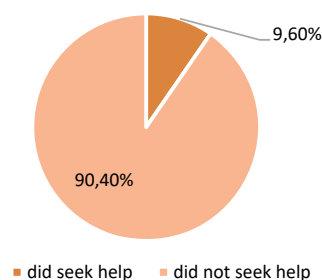


Fig. 1 Help seeking for depression, anxiety and stress from UKM health services

#### E. Discussion

The present study assessed the PD among international university students in Malaysia by determining the prevalence of depression, anxiety, and stress and examining their associated risk factors among this population. In addition, it

evaluated their help-seeking behavior and the awareness about the presence of on-campus mental support services.

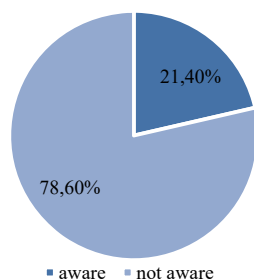


Fig. 2 Awareness of available on-campus mental health services

TABLE V  
ASSOCIATION BETWEEN DEPRESSION, ANXIETY AND STRESS AND HELP-SEEKING BEHAVIOR

|                  | Help-seeking behavior:<br>(Mean $\pm$ standard deviation) |                  | Test of<br>significance | P-value<br>( $P < 0.05$ ) |
|------------------|---|------------------|-------------------------|---------------------------|
|                  | Yes   | No               |                         |                           |
| Depression score | 19.11 $\pm$ 7.4   | 12.40 $\pm$ 9.1  | t-test                  | 0.00                      |
| Anxiety score    | 20.3 $\pm$ 8.97   | 13.1 $\pm$ 8.98  |                         | 0.00                      |
| Stress score     | 22.15 $\pm$ 9.36  | 16.04 $\pm$ 8.80 |                         | 0.001                     |

The results of the present study showed high prevalence and severity of depression, anxiety, and stress among international students with more than half of this population suffering from mild to very severe levels of PD. Anxiety appeared to be the most prevalent with more than two thirds of the students reporting they had some sort of anxiety disorders. The prevalence of moderate to very severe depression, anxiety, and stress were found to be 46.8%, 62.9% and 38.2%, respectively. This prevalence is higher compared to the prevalence of depression, anxiety, and stress of moderate severity and above recorded among Malaysian and Turkish university students at rates of 37.2%, 63% and 23.7% and 27.1%, 47.1% and 27%, respectively [17]. The overall prevalence of stress in this study was consistent with that of an earlier study among international students at 54% [7]. Higher prevalence of PD among international students may be because they have to adapt to the new environment and different education system, they face linguistic barriers and changes in their support system. Moreover, social stressors such as cultural difference, relationships with peers and hostel mates may affect their mental well-being. These findings are in accordance with the study hypothesis that there is high prevalence and severity of depression, anxiety and stress among international university students in Malaysia. Although DASS-21 is a screening and not a diagnostic tool, this high prevalence of depression, anxiety and stress may need further consideration from university administrative staff and health-care professionals.

In this study, age was found to have significant associations with depression (p-value is 0.042) and anxiety (p-value is 0.014) scores. This is consistent with other studies which reported that age was significantly associated with depression and anxiety scores [7], [18]. Higher depression and anxiety

scores were detected in the age group of 21-24 years followed by 25-35 years, and lastly, younger students aged 18-20 years. This is consistent with a previous study which showed that age more than 20 years has strong association with depression, anxiety and stress [18]. This may be because older students are more worried about their future and life after graduation. Older students may be keener with regard to finishing their studies, so as to be able to work and be financially independent.

This study revealed that there were no significant associations between gender and depression, anxiety, or stress, with both male and female students reporting almost similar levels of PD. This is in accordance with a previous study which showed that gender had no significant association with depression, anxiety, and stress among university students [19]. On the other hand, other studies found that females had higher levels of PD than males [17], [20]. It was demonstrated that females were twice as likely as males to have an anxiety disorder and that the risk factors for mental problems among women reported to be related to hormonal and biochemical differences between both genders [3].

Ethnicity in the present study was significantly associated with depression and stress, with higher depression and stress levels reported in the minority ethnic groups followed by the Arab ethnic group, respectively. Higher depression and stress levels in the minority group could be attributed to the lack of expatriate communities from the same country or culture as the student himself. The detachment from their cultures with the lack of alternative community and support system deepens the feeling of loneliness and isolation from their surroundings. It was reported that minority ethnic groups may predispose to such psychological problems as minority students experience feeling of loneliness and discrimination [21]. While the high prevalence of depression and stress among the Arabs ethnic group may be related to the deteriorated states that their countries are having currently. The effects of such deterioration extend to affect those students' careers and personal lives.

There was no significant association between marital status and PD in the present study. However, it was reported in earlier studies that depression, anxiety, and stress were more likely to be higher among single students, and married students were less prone to PD [18], [19].

The present study demonstrated no significant association between depression, anxiety, and stress and monthly income of international students. This may be because this study was done on international students who are more inclined to manage their finances properly to avoid any unfavorable situations. In addition, reduced student prices are provided in many places in Malaysia including university canteens, public parks, tourist attractions and public transportation, etc. However, it was reported earlier that there was a significant association between socioeconomic level with stress and depression, as higher stress and depression scores were recorded in the low socioeconomic class [18], [19].

Study program was not associated with depression, anxiety, and stress among international students in the current study.

This might be since all international students are affected by the same circumstances regardless of the course of their studies. This is supported by an earlier study which found there were no significant associations between study program and depression, anxiety and stress scores [7]. However, other research findings reported that medical students showed higher prevalence and severity of stress and depression compared to their non-medical peers [19]. On the other hand, it was reported that the depression and anxiety levels were higher among students who were studying social and political sciences compared to those who were studying engineering, medical, or basic sciences [17].

TABLE VI  
MULTIPLE REGRESSION MODEL FOR DEPRESSION, ANXIETY AND STRESS  
WITH CHARACTERISTICS OF STUDY PARTICIPANTS

| Variables           | Depression<br>$r^2 = 0.065$ |         | Anxiety<br>$r^2 = 0.052$   |         | Stress<br>$r^2 = 0.049$    |         |
|---------------------|-----------------------------|---------|----------------------------|---------|----------------------------|---------|
|                     | Regression coefficient (b)  | p-value | Regression coefficient (b) | p-value | Regression coefficient (b) | p-value |
| Age Group:          |                             |         |                            |         |                            |         |
| 18-20               | -.023                       | .815    | .749                       | .812    | 1.992                      | .519    |
| 21-24               | .139                        | .047 S  | 4.625                      | .004 S  | 2.656                      | .086    |
| 25-35               | Ref.                        |         | Ref.                       |         | Ref.                       |         |
| Gender:             |                             |         |                            |         |                            |         |
| Male                | .274                        | .835    | .789                       | .554    | -.914                      | .484    |
| Female              |                             |         |                            |         |                            |         |
| Nationality:        |                             |         |                            |         |                            |         |
| Arabs               | 6.471                       | .003 S  | 4.282                      | .052    | 6.279                      | .004 S  |
| Asians              | 4.186                       | .079    | 3.143                      | .192    | 5.381                      | .023 S  |
| Africans            | Ref.                        |         | Ref.                       |         | Ref.                       |         |
| Others              | 7.293                       | .048 S  | 2.653                      | .477    | 7.064                      | .054    |
| Educational level:  |                             |         |                            |         |                            |         |
| Undergraduate       | .310                        | .896    | .456                       | .849    | 1.861                      | .429    |
| Postgraduate        |                             |         |                            |         |                            |         |
| Study Program:      |                             |         |                            |         |                            |         |
| Non-medical         | .681                        | .670    | -.605                      | .709    | .037                       | .981    |
| Medical/paramedical |                             |         |                            |         |                            |         |
| Monthly Income:     |                             |         |                            |         |                            |         |
| < 2000 RM           | -.029                       | .989    | -1.559                     | .455    | -.351                      | .863    |
| 2000 - 5000 RM      | .204                        | .921    | -1.435                     | .488    | -1.052                     | .603    |
| > 5000 RM           | Ref.                        |         | Ref.                       |         | Ref.                       |         |
| Marital Status:     |                             |         |                            |         |                            |         |
| Married             | -.637                       | .617    | 1.003                      | .436    | 1.145                      | .365    |
| Single              |                             |         |                            |         |                            |         |

Although university students often demonstrate low levels of mental well-being, they show poor help-seeking behaviors for their mental health problems [9]. In this study, help-seeking behavior was found to be positively associated with depression, anxiety, and stress scores as students with higher PD reported higher help-seeking behavior from support services available at the university. While they also showed that students with higher mental health levels were more likely to seek help from informal sources such as friends and partners. Students with lower mental health levels were unlikely to seek help from both formal and informal sources. Moreover, the current study found that only one in 10 international students had sought psychological help from the support services available at the university. Professional help-seeking behavior among students was demonstrated to range from 15% to one third of students [22], [23]. However, it was reported that only 3.77% of students sought help from the

available university support services [9]. Even though university counselling services are free, most students would seek help from external sources [24]. This may be attributed to lack of awareness of the symptoms of their mental problems or the available mental support services. Also, mental health illness may be stigmatized in some cultures, and therefore, it is important to normalize international students' views towards mental health issues.

The present study found that 78.6% of international students were unaware of the presence of on-campus mental support services. This is consistent with previous research that found that international students underutilize mental health services, with 50% of international students being unaware of the presence of such services [25].

The limitations of the current study include that the design of the study was cross-sectional which cannot determine the incidence rate of PD - it can only determine its prevalence. Also, a non-probability sampling method was used, and the samples were taken without regard to the correct distribution characteristics of the international students at the university due to lack of epidemiological data for this population. This may introduce sampling bias and affect the generalizability of the study findings. Moreover, it is important to mention that the DASS-21 questionnaire can be used to assess prevalence and severity of PD and not to diagnose psychological disorders.

#### IV. CONCLUSION

In conclusion, this study revealed high prevalence and severity of PD among international students that were associated with age and ethnicity. Also, very poor mental help-seeking behavior and awareness of the available on-campus mental support services were reported. These findings highlight the importance of screening and taking proper interventions to improve the mental well-being of this vulnerable population.

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