

Mental Health in Malaysia: A Study of Gender Differences

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ABSTRACT

Depression, anxiety, and stress are illnesses that are categorized under mental health conditions. It was anticipated that after heart disease, mental health situations are likely to be the second major health badly-behaved disturbing Malaysians by the year 2020. This situation is very disturbing among youth including university students who suffer from mental health illness which may lead to an increase in the risk of suicide, and other social problems specifically throughout the dated of the COVID-19 pandemic. It needs anticipation approaches to implement a complete social and public health method. Therefore, this study will examine the level of depression, anxiety, and stress among male and female university students in Malaysia throughout the pandemic. The study implemented the DASS-21 inventory to quantify the mental health of the male and female students throughout the pandemic. Data collected between January to May 2021 with a total of 355 respondents came from 196 female students (55.2%) and 159 male students (44.8%). The study employs the simple random sampling method consisting of 31 closed-ended questions and the Likert scale. Overall findings showed that there have been significant differences in percentage between male students and female students in terms of depression, anxiety, and stress levels. The results displayed that the depression, anxiety, and stress levels scored by the female students were higher than those of the male students. The study recommended expanding further research to socio-economic status based on the geography

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of the university students during and post-pandemic to determine the level of mental health among male and female university students.

Contribution/Originality: The paper's primary contribution is finding that depression, anxiety, and stress levels among university female students are higher. Thus, supporting promotion and prevention as well as innovative approaches to mental health can help students to stay healthy in emotional, psychological, and social well-being.

1. Introduction

There is an increasing number of people who tend to suffer from mental health issues or illnesses. A high number of people have reported experiencing anxiety, stress, or depression at some point throughout their lives. WHO (2022) report found that mental health conditions are highly prevalent in all countries. It was reported that about one in eight people in the world live with a mental disorder. Further reported in 2020, the figure of people having anxiety and depressive disorders due to the COVID-19 pandemic was found to increase significantly. About 26% and 28% increase correspondingly for anxiety and major depressive disorders in just one year (WHO, 2022).

The situation of COVID-19 pandemic which led to a worldwide lockdown has placed a substantial mental health burden on all walks of life including children and university students. Elharake et al. (2022) in their studies among children and college students indicated that children and college students were found to have a feelings of anxiety, depression, fatigue, and distress compared to before the pandemic. A study by Cam et al. (2022) found that 64.6%, 48.6%, 45.2%, and 34.5% of their respondents have symptomatic signs of post-traumatic stress disorder (PTSD), depression, anxiety, and stress which is commonly seeming among university students throughout the COVID-19 pandemic. In addition, a study by Kassim et al. (2022) suggests that the greatness of fears, worries, and stress is higher significantly in a university student than in the public community during the COVID-19 situation.

This COVID-19 crisis has created great challenges for all individuals including university students who are found to be vulnerable to various stress variables. Hence, it is very crucial to have more studies investigating the prevalence of mental health and its correlates among this university student population. Concerning this, several studies indicate that experience of mental health may differ based on gender. For instance, a study by Wiltink et al. (2011), highlighted that women were found more mental health complications than men. This is similar to findings of mental ill-health among men and women by different literatures (GonzálezSanguino et al., 2020; Liu et al., 2020; Ozdin & Bayrak Özdin, 2020; Wang, et al., 2020). Moreover, the more acute PTSD, depression, anxiety, and stress symptoms were significant among the female students (Cam et al., 2022). Furthermore, a study by Kassim et al. (2022) suggests that being female and single are also risk factors for developing psychopathologies during the COVID-19 pandemic.

In brief, mental health and mental illness may affect us all in different ways and gender is found to play a role in the specific ways we as individuals may be subjected to it. However, previous works of literature on mental health among male and female university students are still lacking (Otten et al., 2021). Therefore, the current study which focuses on gender in mental health research is of great importance. Thus, the objective of the present study

is to investigate the gender differences in mental health issues among Malaysian university students.

2. Literature Review

A person is said to be in a state of mental health if he is aware of their talents and weaknesses, maintains the wherewithal to deal with everyday stresses, engages in fruitful activities, and delivers positive contributions to their community (WHO, 2007). Moreover, mental health denotes someone who manages to control his emotional and cognitive responses, which link to his feelings, and behaviors in a variety of settings and is subjected to various stressors (WHO, 2001). Nonetheless, in the university students' context, one may undergo psychosocial transition and academic tension, which can influence mental health levels. To equip themselves for more proficient employment, students must adjust to the psychological adaptations that take place during their education (Uehara et al., 2010).

The majority of outbreaks entail severe blows to one's mental well-being and, therefore, will create social concerns in years to come (American Psychiatric Association, 2013). The emergence of COVID-19 has yielded a variety of emotions, including dread, panic, concern, and despair (Wang et al., 2020). Individuals require the capacity and resources to deal with stress. Students' inability to properly systematize their studies and leisure time results in strain and demotivation (Nur Asiah & Zakiah, 2018). The state of a person's mental health can impose repercussions on their overall health, as well as their life satisfaction and productivity level. Nevertheless, the current advancement of mental health concerns in Malaysian society is shockingly high. More importantly, the COVID-19 epidemic has crippled people's daily life and may be contributing to the mental illness issues afflicting this country.

Mentally healthy people can keep their interactions with others harmonious and are also able to engage in and make contributions to their communities actively. Psychological stress and the individual's capability to cope with it significantly impact mental health. Mohd Suhaimi and Rozita (2018) differentiated male and female undergraduate students' psychological apprehension and mental health at Universiti Kebangsaan Malaysia (UKM). The General Health Questionnaire (GHQ-12) and the Mental Health Inventory (MHI) were the research tools employed in this survey, which adopted a quantitative methodology. This study was conducted with the participation of 200 male and female students from multiple faculties and residential colleges. Most of the participants reported minimal levels of psychological stress, according to the data. Male participants were shown to be more depressed than their female counterparts. Furthermore, MHI revealed that nearly all respondents have a high or medium degree of mental health. The mental health of female respondents was superior to that of male respondents. The comparison research comparing male and female students fits in the modern day when female students predominate in universities across the country, and male student enrolment is on the decline. In other words, the outcomes of this study verified that male and female students are different in important ways, particularly concerning their experience of psychological stress and general psychological well-being.

Rahman et al. (2021) noted that female students' psychological tension, social exclusion, academic rendition, and mental health were more harshly affected by the epidemic than male students. Furthermore, compared to males, females' everyday usage of social media as a coping process was related to larger reported negative consequences on academic

achievements and stress degrees. Nonetheless, regular social media usage is typically associated with unfavorable mental health developments for all genders. Both male and female students expressed that they used drugs to cope, but males who took cannabis had worse mental conditions, strain, and grades than females who did the same. These results underscore the gravity of fitting services for students throughout the collegiate sphere and the need for gender-sensitive measures to minimize the consequences of the COVID-19 pandemic.

[Levecque et al. \(2017\)](#) discovered that there are disparities in mental health between men and women among Ph.D. students at a Flemish university based on how they handled their workload and dealt with mental health issues. The study established that female Ph.D. students are 34 percent more likely to encounter at least two psychological disorders than male Ph.D. students, who develop four symptoms at a rate of 27 percent. Other research, however, demonstrated no correlation between age and mental health. [Mohd Suhaimi and Mohd Haazik \(2020\)](#) realized that the amount of psychological stress among students differs notably by gender. Hence, this research attempts to determine personality types and mental health levels among university students. At UKM's Faculty of Social Sciences and Humanities, 200 students were selected using a random sample approach. Five instruments, including the Beck Depression Inventory (BDI), Mental Health Inventory (MHI), General Health Questionnaire (GHQ-12), the Personality Test STIFIN, and the Spielberger State-Trait Anxiety Inventory (STAI), were included in the questionnaires distributed to all respondents. GHQ-12 score noted that one-third of respondents experience high psychological stress. The affinity between male and female student stress levels is statistically substantial. This survey revealed that 58% of all respondents have a high MHI score, indicating a degree of mental health. Gender has a powerful impact on pupils' mental health. STIFIN reported that most respondents have an extroverted personality type, whether intuitive, perceiving, feeling, or sensing types.

[Md. Nurul and Kazi \(2008\)](#), [Vungkhanching et al. \(2016\)](#), [Nor Sheeran and Rozumah \(2010\)](#), as well as [Shamzaeffa and Kevin \(2016\)](#), documented no significant gender differences in GHQ-12 scores. Thus, it demonstrated that male and female students are susceptible to mental health issues if they do not have a healthy atmosphere. In contrast to female students, male students are more likely to have mental health issues, [Nguyen et al. \(2019\)](#) claimed. Nonetheless, this result contradicts the conclusions by [Glozah \(2013\)](#) and [Levecque et al. \(2017\)](#), who indicated substantial gender-based variation in psychological condition and mental well-being. [Abdul Rashid \(2019\)](#) uncovered no significant difference in the stress levels of men and women [$t=1.027$, $p>0.05(0.305)$]. There is no difference in the mean scores of male and female participants. Hence, it suggested that the levels of stress experienced by male and female students are comparable. Most of the 340 students surveyed (85%) reported feeling somewhat stressed. Furthermore, no distinction between male and female genders in terms of how stressed out they get while studying.

Female students are more likely than male students to have adverse emotional effects from online studying during the pandemic ([Babicka et al., 2021](#); [Sundarassen et al., 2020](#)). The epidemic has exacerbated women's expected propensity for displaying more emotion than males. The emotional tolerance of women is lower than that of males, making it more problematic for them to conceal improper emotions. Because of this, most female students find that online learning creates unnecessary tension and worry. Accordingly, it illustrates the sense of paying particular attention to women when addressing potential psychological issues. [Wenjuan Gao, Siqing Ping, and Xinqiao Liu \(20'20\)](#) evaluated data

from 1892 students, including 898 females and 994 men, enrolled in undergraduate programs at 15 Chinese educational institutions. This study set out to investigate potential variables contributing to first-year students' apprehension and to determine gender variations in despair, anxiousness, as well as stress over four years of college. Students were tracked for four years and polled using a questionnaire that contained the Depression Anxiety Stress Scale-21, as well as questions on their backgrounds, experiences in school, and other factors. In the first three years of college, minor anxiety impacted male and female students. Anxiety was considerably more prominent among female students in the first and second years, whereas there was no significant contrast between the sexes regarding sadness and pressure. No significant gender differences were detected in stress issues. However, many female students recorded anxiety levels beyond the usual threshold, whereas a larger number of male students registered to suffer from depression. Both introversion and anxiety were significantly correlated positively. Anxiety was linked to poor grades, heavy drinking, and negative body image among first-year female students.

[Van Droogenbroeck, Spruyt, and Keppens \(2018\)](#) looked at the connection between social support and mental health issues among Belgian youths aged 15–25. Furthermore, they looked at the evolution of mental health issues from 2008 to 2013 and the disparities between the sexes. It was shown that girls reported considerably greater levels of psychological discomfort, nervousness, and depression than boys. Adolescents who are unhappy with their socialization and receive little social help are more likely to experience mental stress and despair, as shown by the results of a multivariate analysis of variance (MANOVA). Besides, compared to late teenage males, young adult boys (20–25 years old) were more prone to note psychological discomfort (15–19 years of age). In conclusion, anxiety and depression rose sharply between 2008 and 2013 among girls and to a lesser level among boys.

However, several studies and analyses in recent years have demonstrated major mental health concerns impacting Malaysian university students. Nearly 30% of the 1,023 Malaysian college students surveyed by [Islam et al. \(2018\)](#) reported experiencing depression, with 4.4% falling into the "severe" classification. [Samsudin and Tan \(2016\)](#) recorded that 51.9% of undergraduates at Universiti Utara Malaysia (UUM) who participated in the survey experienced mental health issues. This disconcerting number echoes the seriousness of mental health issues in Malaysia's youth and spotlights the critical need for additional support services.

Further, male students' necessities in dealing with academic pressure and other emotional and mental health issues deserve serious consideration. As a result of their inherent preference for emotional isolation, male students are at a higher risk of growing distressed and mental illnesses than their female counterparts. The probability of male mental patients increases if this is not addressed while designing psychological services and life well-being for students at public institutions. Also, the boosted employment of smartphones has led to an evolution in today's youth toward a more solitary and less relational perspective on life. There is not as much social assistance available to deal with reality's stress dilemmas if connections are not made, and this is mainly applicable in the university realm. As a learning institution, the University is accountable for equipping its learners with a social network of support that is both germane and efficacious in assisting them in devising sound survival strategies for dealing with stress. Moreover, students should periodically be exposed to activities that raise awareness about mental illnesses between registration and graduation. This encourages earlier detection of mental and

psychological disorders and empowers subsequent intervention. Ergo, this research intends to explore the disparities in the incidence of depression, anxiety, and stressful symptoms between male and female Malaysian university students.

3. Methodology

This study examined the research problems and objectives using a quantitative research methodology. The quantitative method is used in assessing university students in Malaysia on their level of mental health among male and female students. The survey was chosen as the research approach since it is more cost-effective and able to collect databases from a large number of people in a short amount of time (de Leeuw, 2008). The current study will involve the online dissemination of survey questionnaires.

The sampling method employed in this investigation was simple random sampling. Simple random sampling is a sampling for selecting subjects in quantitative research. It ensures that the sample is representative of the general population because each individual in the population has an equal probability of being chosen (Creswell, 2009). All undergraduate students in Malaysia will have an equal chance of being chosen to participate in this study as respondents.

In this research, the questionnaire will be used as the research instrument. Questionnaires consist of 31 closed-ended questions and are organized into two sections. Section A covers the demographic information of the respondents and Section B consists of questions on the level of mental health and the items were adopted from Depression Anxiety Stress Scale (DASS 21) (Lovibond & Lovibond, 1995). The survey questionnaires are written in English and scored on a 4-point Likert scale, with 1 representing "never" and 4 representing "almost always".

The collected data will be analyzed using descriptive and inferential statistics. SPSS version 25 will be used to evaluate the data. For section A (demographic characteristics), the descriptive analysis will be used whereby frequencies, percentages, means, and standard deviation will be employed. Inferential statistics will be used in section B (level of mental health) whereby an independent sample T-test will be assessed. The data collection was conducted in April 2021 and 355 university students participated in this survey.

4. Findings and Discussion

This study involved 355 undergraduate students from different universities in Malaysia with 56.6% from public universities and 43.4% from private universities. Table 1 shows the demographic characteristics of the respondents of this study. The majority of respondents are 196 female students (55.2%) while the rest are 159 male students (44.8%). In terms of the parents' socio-economic status, most of the respondents fall in the category of B40 families which is a total of 170 respondents (47.9%), while 150 respondents (42.3%) involved in the M40 families and a small number of 35 respondents (9.9%) are from T20 families. At the time of data collection, many universities were still practicing online teaching and learning (OTL). There are about 84.4% of the respondents were staying with their parents and have two or three siblings (21%). 69% of the respondents were from the urban areas. The students of the Arts Stream recorded the highest number with a total of 209 respondents (58.9%) while only 146 Science Stream students (41.1%) participated in this study. First-year students are the most involved

which is a total of 117 respondents (33%) while students in year four recorded the lowest number of respondents which is 8 respondents (2.3%). Data shows that the Malay students who participated in this study are 169 respondents (47.6%), 147 Chinese students (41.4%), and 9 Indian students (2.5%) while students of other ethnicities are 30 respondents (8.5%). Hence, most of the respondents in this study were Muslims (52.7%).

Table 1: Demographic Characteristics of the Respondents (N= 355)

Variable	Percentage	Frequency
Gender		
Male	44.8	159
Female	55.2	196
Religion		
Islam	52.7	187
Buddha	31.8	113
Christian	9.6	34
Hindu	2.3	8
Others	3.7	13
Ethnic		
Malay	47.6	169
Chinese	41.4	147
Indian	2.5	9
Others	8.5	30
Number of Siblings		
1	13.2	47
2	21.4	76
3	21.1	75
4	19.4	69
5	10.4	37
More than 5	14.4	51
Family Status		
Stay with guardian	2.5	9
Stay with parents (both mother and father)	84.4	301
Stay with a single parent (mother or father)	12.7	45
Place of Residence		
Rural area	31.0	110
Urban area	69.0	245
Parents' Socio-Economic Status		
B40	47.9	170
M40	42.3	150
T20	9.9	35
Type of University		
Public University	56.6	201
Private University	43.4	154
Year of Study		
Year 1	33.0	117

Year 2	32.1	114
Year 3	31.0	110
Year 4	2.3	8
Others	1.7	6
Field of Study		
Arts Stream	58.9	209
Science Stream	41.1	146

The study implemented the Independent student's T-test statistical analysis to relate the level of depression, anxiety, and stress among male and female university students in Malaysia between January and May 2021. Out of the 21 items calculated in DASS, 7 items matched depression, 7 items matched anxiety, and 7 items matched stress. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest or involvement, anhedonia, and inertia; the anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect while the stress scale is sensitive to levels of chronic non-specific arousal. It also measures difficulty relaxing, nervous arousal, and being easily agitated, irritable, and impatient. The results revealed that the majority of the respondents have mild levels of depression and anxiety as well as normal levels of stress.

The results of this study show that there are more female respondents than male respondents. This situation is in line with the report issued by the [Ministry of Higher Education \(2020\)](#) which shows that the number of female students studying at the university is higher than that of male students. [Bakar \(2006\)](#) stated that female students are more likely to be diligent in reading, memorizing, and studying compared to male students who prefer technical fields such as information technology, engineering, or architecture. Generally, the attitude and interest of these female students allow them to get better results in SPM, STPM, or Matriculation Certificates than male students. Besides, almost all universities in Malaysia offer programs such as social science, education, and technological science that require students to read and memorize a lot. This situation also contributes to the instability of the number of students according to gender in universities which are generally monopolized by female students.

Generally, Malaysian students are reported as being depressed, but they can struggle with their lives happily. The scores obtained from the test analysis in determining the difference in stress levels between male and female genders. The analysis found that the results obtained were significant differences between gender at a value of $p < 0.05$ in the items of "I couldn't seem to experience any positive feeling at all", "I felt down-hearted and blue" and "I felt I wasn't worth much as a person". The depression percentage score of female students is higher than that of male students. This clearly illustrates that female students are more psychologically depressed when compared to male students as shown in [Table 2](#).

[Table 3](#) shows the scores obtained from the test analysis to determine the difference in anxiety levels between male and female university students. The analysis found that the results obtained were significant at a value of $p < 0.05$ except in the item "I was aware of dryness of my mouth". Hence, overall findings show that there is a significant difference between genders and the level of anxiety among male and female university students. The female students experienced an anxiety percentage higher than the male students. This

clearly illustrates that female students are more psychologically anxious when compared to male students.

Table 2: Depression Level by Gender

Items	NEVER (0)		SOMETIMES (1)		OFTEN (2)		ALMOST ALWAYS (3)	
	Male	Female	Male	Female	Male	Female	Male	Female
I couldn't seem to experience any positive feelings at all	34.6%	24.5%	44%	44.4%	18.9%	24.5%	2.5%	6.6%
I found it difficult to work up the initiative to do things	25.2%	12.8%	34.6%	37.8%	25.8%	31.1%	14.5%	18.4%
I felt that I had nothing to look forward to	39%	28.1%	37.7%	42.3%	18.2%	17.9%	5%	11.7%
I felt down-hearted and blue	37.1%	24%	34.6%	38.3%	22%	25.5%	6.3%	12.2%
I was unable to become enthusiastic about anything	34.6%	30.6%	43.4%	45.4%	17%	15.3%	5%	8.7%
I felt I wasn't worth much as a person	45.3%	32.1%	31.4%	32.1%	17%	17.9%	6.3%	17.9%
I felt that life was meaningless	52.8%	42.9%	23.9%	32.7%	17%	13.3%	6.3%	11.2%

Table 3: Anxiety Level by Gender

Items	NEVER (0)		SOMETIMES (1)		OFTEN (2)		ALMOST ALWAYS (3)	
	Male	Female	Male	Female	Male	Female	Male	Female
I was aware of the dryness of my mouth	22%	17.9%	32.7%	30.6%	31.4%	33.2%	13.8%	18.4%
I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	54.1%	36.7%	29.6%	37.2%	15.1%	19.4%	1.3%	6.6%
I experienced trembling (eg, in my hands)	46.5%	33.2%	37.1%	32.1%	11.9%	24%	4.4%	10.7%
I was worried about situations in which I might panic and make a fool of myself	28.3%	15.3%	31.4%	28.1%	23.9%	28.1%	16.4%	28.6%
I felt I was close to panic	39%	29.1%	35.2%	32.7%	22%	26.5%	3.8%	11.7%
I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	41.5%	29.6%	30.8%	31.6%	23.3%	24%	4.4%	14.8%
I felt scared without any good reason	45.9%	30.1%	34.6%	27.6%	13.8%	25%	5.7%	17.3%

Finally, [Table 4](#) shows the scores obtained from the test analysis to determine the difference in stress levels between male and female university students. The analysis found that the results obtained were significant at a value of $p < 0.05$. This shows that there is a significant difference between genders and the level of stress among male and female university students. Similarly to the anxiety level, the female students were found to score the stress level more than the male students. This clearly illustrates that female students are more psychologically stressed when compared to male students.

Table 4: Stress Level by Gender

Items	NEVER (0)		SOMETIMES (1)		OFTEN (2)		ALMOST ALWAYS (3)	
	Male	Female	Male	Female	Male	Female	Male	Female
I found it hard to wind down	20.1%	10.2%	41.5%	43.4%	34.6%	36.7%	3.8%	9.7%
I tended to over-react to situations	30.8%	18.9%	42.1%	32.7%	22.6%	26.5%	4.4%	21.9%
I felt that I was using a lot of nervous energy	30.8%	18.9%	34.6%	33.7%	23.9%	32.7%	10.7%	14.8%
I found myself getting agitated	35.8%	24.5%	38.4%	41.8%	21.4%	23%	4.4%	10.7%
I found it difficult to relax	39%	23%	39%	42.3%	19.5%	23.5%	2.5%	11.2%
I was intolerant of anything that kept me from getting on with what I was doing	32.7%	23.5%	38.4%	40.3%	22%	26%	6.9%	10.2%
I felt that I was rather touchy	37.7%	26%	35.2%	34.2%	21.4%	19.9%	5.7%	19.9%

The findings revealed that there is a substantial relationship between the level of depression, anxiety, and stress for male and female students where the percentage score for female students is higher compared to male students. The results of this study are in line with the studies conducted by ([Backavić et al. 2012](#); [Jafari et al., 2012](#); [Mahawar et al. 2011](#), [Tamini & Far 2009](#); [Augustine et al. 2011](#)) which found that the mean score of female students was higher compared to male students. Most of the mental health studies conducted by looking at gender aspects also found that female students are more motivated to experience mental problems such as depression, anxiety, and suicide compared to male students ([Haugaard 2001](#); [Ristić et al. 2012](#); [Warwick et al., 2006](#)). The mental health of female respondents was found superior to that of male respondents. The findings fit in the modern day when female students predominate in universities across the country, and male student enrolment is on the decline. In addition, female students' psychological tension, social exclusion, academic rendition, and mental health were more harshly affected by the COVID-19 epidemic than male students ([Rahman et al. \(2021\)](#) and had adverse emotional effects from online studying during the epidemic ([Babicka et al., 2021](#); [Sundarasan et al., 2020](#); [Azad et al., 2017](#)). After all, male and female students are

different in important ways, particularly concerning their experience of psychological stress and general psychological well-being (Mohd Suhaimi & Rozita, 2018).

In Malaysia, female students can be said to be more psychologically stressed than male students because of the local cultural influence that sees men as stronger and not weaker. When it is associated with psychological stress, female students may prefer to hide rather than share their problems with others. The masculinity possessed by male students wants to maintain their ego which is said to be more 'macho' compared to female students. However, the study also does not deny that men also experience stress in line with the report released by Green et al. (2005) that young men are more at risk of experiencing life stress than women. This situation can probably also be linked to the feminine attitude of female students who are often given attention and help if they experience problems.

Despite often facing depression, female students have better emotional, social, and educational control than male students since they were teenagers or in school. Therefore, students' self-resilience and students' ability to face pressure are better among female students. This statement is also supported by Muni and Paviswari (1997) who found that females have better emotional control compared to males in facing problems of self-adjustment in educational institutions. Female students are more able to evaluate and control their interpersonal problems in the face of study pressure and use social support more than male students (Srividhya, 2007). In addition, Intan et al. (2011) also found that the level of knowledge of female students is higher than male students in universities regarding mental health.

Universities may perform an essential role in supporting students to manage their anxieties such as by introducing new strategies for counseling (Bao et al., 2020; Yang et al., 2020). Digital psychological interventions such as apps, online programs, text messages, chatlines, forums, and phone calls should be formed by the universities (Holmes et al., 2020). The introduction of new interventions should be transferred to the students. Universities should also provide psychological services, either face-to-face or remotely, as they will mitigate the emotional and mental impacts on students. It is crucial to be constantly in touch with the students. Universities should consider structured programs to decrease the level of anxiety, such as life skills training and mindfulness therapy, which have been confirmed may decrease the level of anxiety.

5. Conclusion

Malaysian university students are generally reported as feeling depressed, anxious, and stressed respectively during the COVID-19 pandemic and lockdown period. The results revealed that the majority of the students have mild levels of depression and anxiety, and normal levels of stress. However, there exist differences in level between genders.

From the result, there were significant differences between genders. The depression level scored by the female students is higher than that of the male students. This clearly showed that female students are more psychologically depressed as compared to male students. The anxiety level scored by the female students is higher than that of the male students as the overall findings showed a significant difference between genders. This clearly illustrated that the female students are more psychologically anxious as compared to the male students. Finally, it is proven that there was a significant difference between genders when the stress levels scored by the female students were higher than those of male

students. This demonstrated that female students are more psychologically stressed as compared to male students.

The result revealed that the data collected based on the number of students between genders was imbalanced. Several factors found contributed to this imbalance are that the number of female students studying at the university is higher as compared to male students (Ministry of Higher Education, 2020). Secondly, female students are more likely to be diligent in reading, memorizing, and studying compared to male students who prefer technical fields such as information technology, engineering, or architecture. In addition, almost all universities in Malaysia offer more programs in social science, education, and technological science that require students to do more on reading and memorizing. This promotes an imbalance of the number of students between genders in universities which are generally monopolized by female students. Female students are seen to be dominating in universities across the country whilst male student enrolment is declining.

Overall, it can be concluded that female students are seen to be more psychologically stressed than male students due to local cultural influence that sees men as stronger and not weaker. Female students may prefer to hide rather than share their problems with others. The masculinity possessed by male students exhibited that they want to maintain the ego that reflects their 'macho' side of them. However, the study also does not deny that men also experience stress following the report released by Green et al. (2005) that young men are more at risk of experiencing life stress than women.

“Measuring mental health has always been difficult as "mental health" or "mental well-being" are subjective concepts influenced by culture and norms and will differ across different societies and communities” (Ministry of Health Malaysia, 2020). Echoing the Ministry of Health Malaysia (2020) message, the study recommended expanding further research to socio-economic status based on the geographic (rural vs urban) of the university students in Malaysia during and post-pandemic to determine the level of mental health of university students. All the students need to be given priority, particularly in the aspects of guidance and counseling for their betterment in the future. Hence, the enforcement of preventive measures could be managed thoroughly.

Ethics Approval and Consent to Participate

All procedures performed in this study involving human participants were conducted following the ethical standards of the institutional research committee.

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Conflict of Interest

The authors declare that the study was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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