ISEBA 2022
International Symposium & Exhibition on Business and Accounting 2022

END OF COVID-19 PANDEMIC: THE IMPACTS ON MENTAL HEALTH AMONG MALAYSIAN STUDENTS

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Abstract

The rapid growth of technology in the era of Industry 4.0 has caused the dynamic labor market to grow faster than ever before. This resulted in a mismatch between the jobs offered and the skills required. Thus, it raised the number of unemployability. The objective of this paper is to analyze the measurement of skill mismatch. Shortcomings and flaws in previous measurement methods and a broad definition of skill mismatch hindered the issues to be solved. The introduction of online job analysis has been seen as increasingly more valuable in measuring labor market conditions. Overcoming the issues such as cost, time lag, and biases, this measurement has been seen to be the new trend among scholars to shed the light on skill mismatch measurement. This paper analyzed 402 papers on online job data (vacancy, advertisement, portal) published from 2017 to 2022 from Scopus and Web of Science databases. Preferred Reporting Items for Systematic Review & Meta-Analyses (PRISMA) were used for this study. After the inclusion and exclusion criteria, ten papers from Scopus and five papers from the Web of Science database that matched with the criteria objective have been selected. Therefore, the study found that analyzing online job data is the new trend to be used in improving the labor market with more of the data could be used for the improvement to the previous method of measuring the skill mismatch problem.

Keywords: Pandemic, depression, anxiety, stress, psychological

1. Introduction

Researchers are finding more and more evidence that the COVID-19 pandemic has already had a significant impact on people's mental health and may lead to the development of mental illnesses like acute stress disorder, depression, and anxiety (Holmes et al., 2020). According to the research cited by Li et al. (2021), people often experience long-lasting psychological effects after disasters. Signs of a problem could be the occurrence of events that trigger post-disaster malignant psychological crises. Furthermore, it is estimated that anywhere from 9.0 percent to 53.5 percent of young adults aged 18 to 29 years old worldwide experienced these signs of psychological distress during the Covid-19 outbreak.

From one point of view, worries about the spread of the movement control order (MCO) and Covid-19 are at the root of a wide range of negative human feelings and states, from stress and depression to worry and dread (Hamid et al., 2022). Moreover, Wang et al. (2020) found that 71.26 percent of students experienced tension and worry, with levels being highest during the Covid-19 epidemic. Majority of American students reported having trouble sleeping, feeling very down, or having suicidal thoughts in the study (Dian et al., 2020). The percentage of Malaysian students who suffer from mental health problems has more than quadrupled in less than a decade (10% in 2011 to 20% in 2016; Hezmi, 2018). For instance, approximately 30% of medical students in Malaysia (n = 761) reported a high incidence of stress (Yusof et al., 2019).

The World Health Organization (WHO) defines mental health as the capacity to achieve one's own potential, to deal with the typical stresses of life, to engage in constructive employment, and to make positive contributions to one's group and society at large. Due to growing number of issues regarding mental health, the Beck Depression Inventory (BDI), the Depression, Anxiety and Stress Scale-21 (DASS-21), the Patient Health Questionnaire 9 (PHQ-9) are most popular inventories used to measure mental health symptoms (Yong et al., 2022). Researchers all across the world have used the DASS to measure stress, anxiety, and depression. According to Rahman et al. (2021), the Depression and Anxiety Symptom Scale (DASS 21) is a self-report questionnaire designed to measure the intensity of a variety of symptoms shared by those suffering from depression and anxiety. When filling out the DASS, individuals must also indicate whether or not a symptom was present over the preceding week.

Previous research has shown that student depression is widespread, with prevalence rates as high as 33 percent, depending on how depression is defined, assessed, and dealt with (Ishak et al., 2020). Depression is more likely to strike students because of the many obstacles they must overcome, such as living on their own for the first time, the pressures of assignments, and the anxiety associated with making plans for their future employment (Islam et al., 2018). Aquino et al. (2018) have mentioned that the symptoms of depression including sadness, quilt, lack of self-esteem and feeling unhappy. In addition, people with depression often have difficulties sleeping, eat less, have less energy, and see suicide as a viable option (Ishak et al., 2020). A person is developing depression and should be treated if they have at least five depressive symptoms for two weeks in a row. Aside from depression, anxiety also become one of the most popular issues in mental health.

According to Mohamad et al. (2021), anxiety is the physical manifestation of worry, fear, or tension about the future. It affects people of all ages and both sexes equally. Concern and uncertainty make up anxiety, a normal human emotion. However, when anxiety is intense, persistent, and excessive, it can lead

to anxiety disorder, which in turn can cause distress syndromes like trembling, shortness of breath, headache, and loss of mental power, anger, and even cardiac arrest (Taly & Paramasivam, 2020). As supported by Hamaideh et al. (2022), who has emphasized the fear issues among students, factor relates to the anxieties that students experience as a result of the unpredictability of their grades and the problems associated with graduating. In a typical setting, students are said to experience anxiety as a result of their academic work; but, the widespread fear and unease caused by Covid-19 may have made the students' mental health condition far worse.

Research on level of stress have been well-documented in many countries especially the respondent is among student (Ramachandiran & Dhanapal, 2018). Moreover, previous research also has shown that the sources of mutual and common stressors among respondents are examinations, assignments, problems with finances, connections with friends, and facilities. In addition, the issue with finances is one of the most common reasons why people feel stressed (Shahira et al., 2018). On the other hand, Vasugi and Hassan (2019) found that depressive and anxious students were more likely to have experienced stressful life conditions, which often led to poor academic performance. There is evidence that the mental and physical health of university students might be negatively impacted by the stress they experience there.

1.1. Problem statement

The management of university during the Covid-19 outbreak has been a major challenge. The need to completely change from face -to -face method to online is very urgent and needs to be done immediately. According to Scull et al. (2020) the implementation of switching process is not an easy task. Even for research mode students, they will face with time management problems (Tseng et al., 2019) and lack of supervisor monitoring (Silinda & Brubacher, 2016).

Research done by Fathoni and Retnawati (2021) showed that students experienced negative effects from physical and psychological as well as other technical problems such as internet problems, devices, interaction with lecturers, monitoring and implementation of learning activities during pandemics. It causes the effects of conventional learning that have been going on for so long at all levels of education to change completely.

Starting on 1st April 2022, the Prime Minister, Datuk Seri Ismail Sabri Yaakob announced that Malaysia is entering the phase of transition to endemic with more face-to-face social activities including education. In summary, the use of online learning has many shortcomings compared to conventional in aspect quality of knowledge and the educational conducive learning environment.

1.2. Purpose of the study

This study aimed to analyse the level of mental health among students after the implementation of face -to -face learning is carried out. Researcher are only focus on three dimensions which is depression, anxiety and stress among students.

2. Research Methods

This study has implemented quantitative analysis which aim to examine variables influencing students stress at UNITEN during the pandemic. Quantitative analysis method is the process of collecting

and analyzing numerical data. It can be utilized to find patterns and average, prepare the predictions, examine causal relationships, and generalize results to a wider population (Bhandari, 2020). Quantitative analysis permits the isolation of invariant relations in the study of behavior (Nevin, 1984). This study was conducted towards students in Universtiti Tenaga Nasional (UNITEN), Sultan Haji Ahmad Shah Campus to measure academic stress among them. There were total of 496 students from foundation level, diploma and bachelor degree program has answered the questionnaire. Respondents were obtained by purposive sampling method who taking the academic programmes in UNITEN, Sultan Haji Ahmad Shah Campus, Pahang with aimed to increase the depth understanding on the study.

This study is using the DASS-21 (Lovibond & Lovibond, 1995) is a general measure of symptoms of depression, anxiety and stress (i.e., in the last 7 days). The scale was devised as 42-item instrument discriminating symptoms of the non-diagnostic general depression-anxiety disorder or negative-affect into measures of depression, physical arousal, and psychological tension and agitation (Antony et al., 1998). The shortened 21-item scale, the focus of the current work, performs as well as the original and is considered the preferred version of the scale (Antony et al., 1998; Henry & Crawford, 2005). Total score from each subsection can range from normal to extremely severe. The students responded to the items on a 4-point Likert scale (0 = never a problem, 1=sometimes a problem, 2=often a problem and 3=almost always a problem). Example items include "I found it hard to wind down" (stress), "I was aware of dryness of my mouth" (anxiety), "I couldn't seem to experience any positive feeling at all" (depression). All data obtained were entered into IBM SPSS software and were analyzed.

3. Data Analysis

Data analysis was performed using Microsoft Excel 2019 and IBM SPSS Statistics version 25.0. Microsoft Excel was used for editing, sorting, and coding. Subsequently, the excel file was imported into IBM SPSS software. Descriptive statistics (frequencies, mean, percentage) were executed using IBM SPSS software.

3.1. Demographic variable

Table 1 below are the summary of respondents' profile for this study. From the total of 496 respondents, 144 respondent are male (29.0%) and 352 respondents are female (71.0%). Furthermore, for age profiling, highest number of respondents are for age range between 18-20 years with a total of 380 respondents (76.6%). Moreover, in terms of nationality, referring to table below, it can be concluded that majority of the respondents are Malaysians, with a total of 492 respondents (99.2%). Next, regarding on the respondents' programme of study, it can be divided into three categories, which is foundation level, diploma level and bachelor degree, and the highest number of respondents are from diploma programme with 275 respondent (55.4%). For course of study, most of the respondents, are from accounting (294 respondents) and in year two of study (290 respondents).

Table 1. Demographic profile

	Characteristics	Frequency	Percentage
Gender	Male	144	29.0
	Female	352	71.0
Age	18-20	380	76.6
	21-23	100	20.2
	24-26	15	3.0
	27-30	1	.2
Nationality	Malaysian	492	99.2
	Non-Malaysian	4	.8
Programme	Foundation	24	4.8
	Diploma	275	55.4
	Bachelor's degree	197	39.7
Course	Accountancy	294	59.3
	International Business	42	8.5
	Business Administration in Human Resource Management	38	7.7
	Business Administration in Marketing	6	1.2
	Business Studies	73	14.7
	Finance	14	2.8
	Tahfiz AL Quran	3	.6
	Business Administration	26	5.2
Year of Study	One	120	24.2
	Two	290	58.5
	Three	74	14.9
	Four	11	2.2

3.2. DASS-21

DASS 21 is a widely used screening tool to assess symptoms of depression, anxiety, and stress in community settings. This instrument comprises three sub-scales: (1) the Depression sub-scale which measures hopelessness, low self-esteem, and low positive affect; (2) the Anxiety scale which assesses autonomic arousal, musculo-skeletal symptoms, situational anxiety and subjective experience of anxious arousal; and (3) the Stress scale which assesses tension, agitation, and negative affect. The DASS sub-scale severity ratings are shown in Table 2.

Table 2. DASS-21 sub-scale severity ratings

Severity	DASS21-D	DASS21-A	DASS21-S
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

Note: DASS21-D: Depression sub-scale of The Depression Anxiety and Stress Scales 21 items; DASS21-A: Anxiety sub-scale of The Depression Anxiety and Stress Scales 21items; and DASS21-S: Stress sub-scale of The Depression Anxiety and Stress Scales 21 items.

It is important to take note that DASS-21 only reflects the severity of the symptoms, but it is not a diagnostic tool. This screening tool is widely accepted and applied due to its reliability, user-friendliness, and ease of administering to the general population. Furthermore, no special training is needed to administer the instrument (Shamsuddin et al., 2013).

Symptoms at predefined levels are depicted in Table 3. Percentages of people acknowledging symptoms decreased with increasing level of severity for anxiety (4%) and are moderate for depression (5%) and stress (4%). However, overall the level of depression, anxiety and stress are at normal rate.

Table 3. Symptoms at predefined severity thresholds

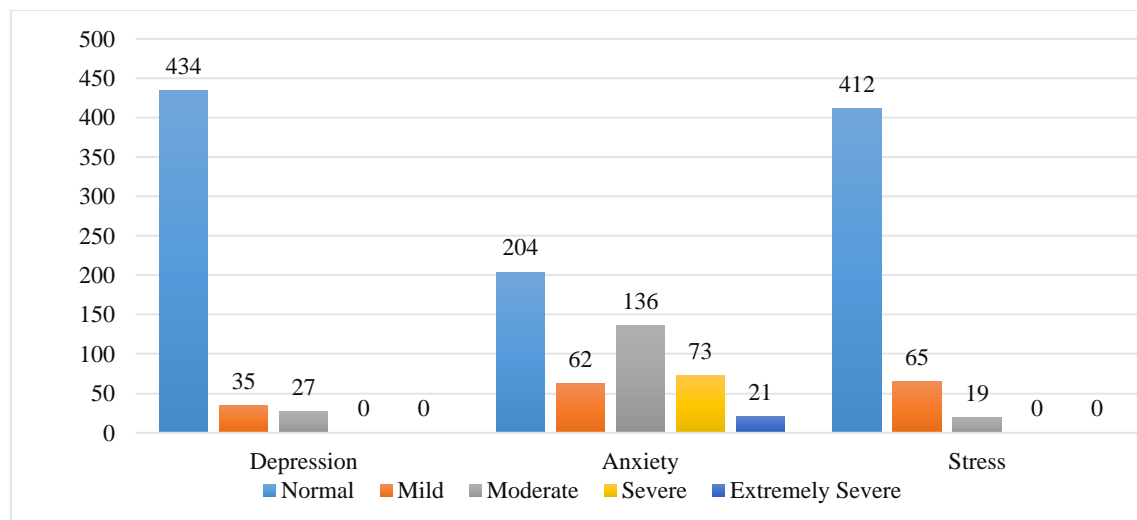| DASS-21	Normal	Mild	Moderate	Severe	Extremely Severe
Depression	434 (88%)	35 (7%)	27 (5%)	0	0
Anxiety	204 (41%)	62 (13%)	136 (27%)	73 (15%)	21 (4%)
Stress	412 (83%)	65 (13%)	19 (4%)	0	0

Figure 1. Severity Level of Depression, Anxiety and Stress

4. Discussions and Conclusions

Various studies have been done on mental health among students at university levels. However, this mental health related study needs to be further strengthened with a more detailed approach as the issue of the Covid-19 that hit the country has changed the learning system from face to face to home-based learning. a study conducted by Mahlan and Hamat (2020) surveyed the relevance of teaching methods based on students' preparation to receive online learning during the Movement Control Order (MCO). Therefore, this study is focusing on depression, anxiety and stress among students. The World Health Organization (WHO) (2003) has defined health as meaning of complete physical, mental and social well-being. Good Mental health is not only able to avoid more challenge event but able to maintain the well-being and happiness (Shelley, 2018).

The increased vulnerability to depression among students can be traced back to a number of factors, including decreased social support, decreased emotional connection, and decreased opportunities for

physical interaction. Depression is more prevalent among college students for many reasons, including the fact that they spend less time engaging in their favourite activities with their social networks. However, as shown in figure 1, 88% of students' depression is at a normal level, it is reported that none of the students facing severe or extremely severe depression were recorded. Meanwhile, student stress with 83% of respondents are at a normal level and only 4% are at a moderate level and there is zero student is rated at a severe or extremely severe. This demonstrates that the end of the pandemic has proven that the depression and stress level of students has dropped. This is because throughout the endemic where the removal of many social distance restrictions, they were allowed to return to campus and increase the amount of physical engagement they had with one another.

Though, researcher are concerned on the level of student anxiety where 41% was recorded at a normal level and 21% was rated at extremely severe level. This matter needs to be taken seriously because a high level of anxiety will have a negative impact on the student's mental health. A negative self-perception can harm a person's mental health. A person's self-concept is fixed, adolescents with negative self-concepts have significantly lower stability of consciousness than those with positive thoughts in the early stages of development. If a person does not create a positive and healthy self-concept, he may experience anxiety (Kaur, 2017). Persons who suffer from anxiety disorders are more likely to experience other psychological disorders. Anxiety disorders and depression are always closely related to each other. In addition, anxiety disorders can affect daily life and quality of life, especially among children, where it will lead to a negative life if not treated as soon as possible. It is possible that panic disorder could develop if this state of anxiety is not successfully overcome. Additionally, Duan et al. (2022) also discovered that sleeplessness was associated with anxiety during post pandemic. This could be due to people being frustrated by the restrictions put in place or being worried about a possible resurgence of the pandemic. As a consequence of this, the individual's sense of self-confidence and their capacity to deal with the issue will decrease, which has the potential to have an impact on the academic achievement of the student (Shahira et al., 2018).

Early intervention may be inclined to better anxiety management by students. Universities might identify students with high anxiety level as to develop better mental health among students. Yusof et al. (2019) suggested universities to introduce courses by way of to equip students with managing their mental health. A significant impact of the pandemic has been on students, who have often been forced to spend extended periods of time away from their communities. It will take a systemic response to recover from this prolonged catastrophe. It is the responsibility of universities to provide students with the mental health services and opportunities they need to regain and improve their social-emotional abilities and to work toward connecting students and society. Additionally, the university needs to enhance the student support services that they offer, particularly the counselling services. Therefore, university's management should consider guide students to develop self-concept with improve the implemented methods, adapt new learning techniques, and monitor levels student concerns. It is reflected that students with a more negative self-concept tends to anxiety.

Based on the result, the research suggested that parental guidance and university administration should priorities encouraging prioritizing in monitoring situations, potentials, student perceptions, and coping methods in order to alleviate student anxiety. It is recommended that in future research, a comparison be performed on other elements of mental health, and it is urged that the study be expanded to

include instructors as participants. Both of these recommendations are highly recommended. It is strongly suggested that studies to follow both of these recommendations.

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