

PSYCHOLOGICAL SYMPTOMS OF THE COVID-19 PANDEMIC

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ABSTRACT

Covid-19 which hit Malaysia in January 2020 impacted people's health tremendously. The Movement Control Order (MCO) imposed by the Malaysian government affected many people in many different ways. Among the effects are the increase of mental health issues from the impact of unemployment, job losses, or working from home, including staff and students from higher education institutions (IPT). The objective of this research is to study psychological symptoms experienced by staff and students of KPJU, KPJIC and MCHM. The study consisted of 360 participants of staff & students from KPJU, KPJIC and MCHM. The data was collected using google form questionnaires, the survey collected the information about sociodemographic of participants and psychological symptoms which was assessed using Depression, Anxiety and Stress Scale (DASS-21) and Impact of Event Scale-Revised (IES-R). Descriptive analysis was utilized to analyse the level of psychological symptoms. Chi-square test was used to test the association between categorical variables. The findings of the study revealed that the level of depression, anxiety, stress and PTSD symptoms of students and staff were at normal to mild symptoms.

Keywords: Covid-19, psychological symptoms, mental health, KPJU

1. Introduction

The COVID-19 pandemic has set off an unprecedented global health crisis, triggering widespread safety measures to curb the virus's transmission. The virus spreads mostly through person-to-person contact, but it can also be transmitted through contaminated objects and surfaces.

COVID-19 was first detected in Malaysia on January 25, 2020. Data indicated a sharp rise in positive cases, with 22 cases reported by February and escalating to 428 cases by mid-March. In response, the Malaysian authorities implemented a two-week Movement Control Order (MCO) on March 18, 2020. This directive led to the closure of non-essential businesses and services, alongside severe restrictions on interstate travel (Ministry of Health Malaysia, 2020).

To further prevent local transmission of COVID-19, the Ministry of Health Malaysia introduced strict measures, including enhanced social distancing, personal hygiene protocols, mandatory use of personal protective equipment, and prohibitions on public gatherings (Ministry of Health Malaysia, 2020).

The impact of pandemic goes beyond health and includes enormous implications on businesses, the economy, and individuals. Economic consequences include unemployment, job losses, and a move to remote work, all of which lead to mental health issues (World Health Organization, 2020).

British National Association of Head Teachers survey conducted in May 2000 indicated that 40% of head educators had consulted a doctor for stress-related issues, 20% believed they consumed excessive alcohol, 15% considered themselves alcoholics, and 25% suffered from severe stress-related health conditions such as hypertension, insomnia, depression, and gastrointestinal disorders (Smith, 2000).

University students face various psychosocial changes while managing academic and social responsibilities. Research indicates that depression (Stark & Brookman, 1994), anxiety (Anson et al., 1984), and stress (Dusselier et al., 2005) significantly affect students' academic performance and overall well-being.

This study aims to examine the psychological symptoms experienced by employees and students at KPJ Healthcare University (KPJU) and its affiliated colleges. Participants were randomly selected from KPJU Nilai, KPJ International College Penang, KPJ International College Johor Bahru, and the Malaysian College of Hospitality & Management.

2. Literature Review

The COVID-19 pandemic has deeply impacted global mental health, with significant psychological symptoms surfacing throughout many individuals and groups of the population. This literature review explores the psychological symptoms associated with the COVID-19 pandemic, emphasizing the experiences of individuals affiliated with KPJ Healthcare University (KPJU).

COVID-19 has caused unprecedented stressors, including fear of infection, social isolation, economic instability, and changes in daily routines (World Health Organization, 2020). The combination of these elements has intensified mental health issues like stress, anxiety, and depression. Studies have consistently reported increased levels of these symptoms during the pandemic. For instance, an international survey found that 33% of participants experienced moderate to severe anxiety, and 28% reported moderate to severe depression (Salari et al., 2020).

Anxiety and depression are the most prevalent psychological symptoms observed during the pandemic. Anxiety levels have risen due to uncertainty about the virus, the effectiveness of vaccines, and concerns about the future (Rajkumar, 2020). Depression has been linked to prolonged periods of social isolation, loss of loved ones, and financial hardships. Research by Huang and Zhao (2020) highlighted that the prevalence of anxiety and depression among Chinese respondents was 35.1% and 20.1%, respectively, during the pandemic's peak.

The pandemic has also intensified stress levels across various demographics. Health care workers, in particular, have faced immense pressure due to increased workloads, risk of infection, and emotional

strain from treating COVID-19 patients (Pappa et al., 2020). A study focusing on university students revealed that stress related to online learning and uncertainty about academic progress significantly affected their mental well-being (Cao et al., 2020). Coping mechanisms such as social support, mindfulness, and physical activity have been recommended to mitigate stress (Brooks et al., 2020).

University students have experienced unique psychological challenges during the pandemic. The abrupt transition to online learning, limited social interactions, and concerns about academic and career prospects have contributed to heightened anxiety and stress (Son et al., 2020). A study conducted at KPJU found that students reported increased levels of anxiety and depression, which adversely affected their academic performance and overall well-being (KPJ Healthcare University, 2021).

The necessity for effective mental health support and interventions has been underscored during the pandemic. Telehealth services, online counselling, and mental health hotlines have become crucial in providing accessible support (Liu et al., 2020). At KPJU, initiatives such as virtual mental health workshops and peer support groups have been implemented to address the psychological needs of students and staff (KPJ Healthcare University, 2021).

3. Materials & Methodology

Data were collected through questionnaires and distributed among staff and students from KPJU Nilai, KPJ International College Penang, KPJ International College Johor Bahru and Malaysian College of Hospitality & Management. For the research, participants were characterised into different categories; age, gender and psychological symptoms through data collected. Ethical approval has been obtained through KPJ Healthcare University ethics review committee. Participants were informed about the purpose of the study, and their consent will be obtained prior to data collection. Confidentiality and anonymity will be maintained throughout the research process.

3.1 Study design

A cross-sectional study was conducted from April 18, 2020 until July,5 2020. Data was collected using Google form questionnaires, which was sent to individuals via email with the help of the respective human resource department.

3.2 Participants

The sample of 360 was randomly selected which includes students and staff from KPJU Nilai, KPJ International College Penang, KPJ International College Johor Bahru and Malaysian College of Hospitality & Management.

3.3 Instrument

The 360 invited participants were asked to fill in the socio-demographic and psychological assessment. In order to assess psychological symptoms, Depression, Anxiety and Stress Scale (DASS-21) and Impact of Event Scale-Revised (IES-R) were used. DASS-21 is a 21 *Likert Scale* which includes three factors; depression, anxiety and stress. IES-R was utilized to assess the PTSD symptoms which has 22 questions. The score for each factor was categorized using cut off into 2 categories; normal and positive symptoms. Cut off scores >9, >7, >14, >24 indicate a positive screen for depression, anxiety, stress and PTSD symptoms respectively.

3.4 Statistical Analysis

Statistical analysis was performed using SPSS Version 20. The demographic of the participants was illustrated using descriptive statistics analysis. The quantitative variables were reported using frequency (percentage) and mean \pm standard deviation. The level of mental health impact among staff and students was tested using descriptive analysis. Chi-square test was used to test the association between psychological symptoms and sociodemographic characteristics. A p -value < 0.05 was considered to be statistically significant.

Results

Out of 360 invited participants, 355 (33 males and 322 females) participated in this study with the response rate of 98.6% (Table 1). The majority of the participants was female (90.7%), aged 21-30 (53.2%), Malay (83.7%), and single (88.5%). Among this, 45 (12.7%) participants were screened positive for depression, 58 (7.9%) for anxiety, 8 (2.3%) for stress and 144 (40.6%) clinical concerns of PTSD symptoms.

Characteristics	All (<i>n</i> = 355)	Males (<i>n</i> = 33)	Females (<i>n</i> = 322)
Age, <i>n</i> (%)			
20 and below	128 (36.1)	10 (30.3)	118 (36.6)
21 - 30	189 (53.2)	14 (42.4)	175 (54.3)
31 - 40	18 (5.1)	6 (18.2)	12 (3.7)
41 - 50	16 (4.5)	3 (9.1)	13 (4.0)
51 and above	4 (1.1)	0 (0.0)	4 (1.2)
Ethnicity <i>n</i> (%)			
Malay	297 (83.7)	24 (72.7)	273 (84.8)
Indian	39 (11.0)	7 (21.2)	32 (9.9)
Chinese	7 (2.0)	1 (3.0)	6 (1.9)
Dusun	2 (0.7)	0 (0.0)	2 (0.6)
Kadazan	1 (0.3)	0 (0.0)	1 (0.3)
Others	9 (2.5)	1 (3.0)	8 (2.5)
Marital status <i>n</i> (%)			
Single	314 (88.5)	26 (78.8)	288 (89.4)
Married	41 (11.5)	7 (21.2)	34 (10.6)
Depression	45 (12.7)	1 (3.0)	44 (13.7)
Anxiety	58 (7.9)	3 (9.1)	55 (17.08)
Stress	8 (2.3)	0 (0.0)	8 (2.5)
PTSD	144 (40.6)	5 (15.2)	139 (43.2)

Table 2 shows nonsignificant association between depression, anxiety and stress from gender and age group. The test revealed gender and age group was associated with PTSD. Gender was not associated with depression ($p = 0.057$), anxiety ($p = 0.176$), and stress ($p = 0.454$). Specifically, 44 (13.7%) of females and 1 (3.0%) of male were screened positive for depression, 55 (17.1%) of females and 3(9.1%) of males for anxiety symptoms, 8(2.5%) of females for stress. There was a nonsignificant association between age and depression ($p = 0.319$), anxiety ($p = 0.155$), and stress ($p = 0.406$). The result shows that 16 (12.5%) of aged 20 and below, 28 (14.8%) of aged 21-30 and 1 (5.6%) of aged 31-40 were positively screened for depression symptoms, 21 (16.4%) of aged 20 and below, 36 (19%) of aged 21-30 and 1 (5.6%) of aged 31-40 for anxiety symptoms, 5 (3.9%) of aged 20 and below, 3 (1.65) of aged 21-30 for stress symptoms. The mean IES score in female was 24.9 ± 18.9 , aged 20 and below (24.9 ± 20.9), and aged 21 – 30 (25.1 ± 17.8), indicating normal to mild PTSD symptoms. In Table 2, gender and age show statistically significant association with PTSD symptoms. 139(43.2%) of females and 5 (15.2%) of males were clinically concerned with PTSD symptoms. 55 (43%) of aged 20 and below, 83 (43.9%) of aged 21-30, 2 (11.1%) of aged 31-40 and 4 (25.0%) of aged 41-50 were clinically concerned with PTSD symptoms.

Table 2: Association between sociodemographic characteristics and depression, anxiety, stress and PTSD symptoms.

Variables	Gender n (%)			Age Group					p
	Female	Male	p	20 and below	21 - 30	31 - 40	41 - 50	51 and above	
Depression (mean ± sd)	4.5 ± 4.6	2.3 ± 2.9	0.057	4.3 ± 4.7	4.7 ± 4.6	2.5 ± 2.7	2.4 ± 1.3	2.2 ± 1.1	0.319
Normal	278 (86.3)	32 (97.0)		112 (87.5)	161 (85.2)	17 (94.4)	16 (100.0)	4 (100.0)	
Positive	44 (13.7)	1 (3.0)		16 (12.5)	28 (14.8)	1 (5.6)	0 (0.0)	0 (0.0)	
Anxiety (mean ± sd)	4.3 ± 3.9	2.5 ± 2.9	0.176	4.4 ± 4.1	4.4 ± 3.7	2.6 ± 2.1	1.6 ± 2.2	0.8 ± 1.0	0.155
Normal	267 (82.9)	30 (90.9)		107 (83.6)	153 (81.0)	17 (94.4)	16 (100.0)	4 (100.0)	
Positive	55 (17.1)	3 (9.1)		21 (16.4)	36 (19.0)	1 (5.6)	0 (0.0)	0 (0.0)	
Stress (mean ± sd)	5.3 ± 4.2	2.9 ± 2.9	0.454	5.5 ± 4.3	5.3 ± 4.1	3.7 ± 3.3	1.8 ± 3.7	3.0 ± 1.4	0.406
Normal	314 (97.5)	33 (9.5)		123 (96.1)	186 (98.4)	18 (100.0)	16 (100.0)	4 (100.0)	
Positive	8 (2.5)	0 (0.0)		5 (3.9)	3 (1.6)	0 (0.0)	0 (0.0)	0 (0.0)	
IES-R (mean ± sd)	24.9 ± 18.9	12.3 ± 11.6		24.9 ± 20.1	25.1 ± 17.8	13.0 ± 9.8	13.4 ± 9.8	13.4 ± 19.3	
PTSD			0.001*						0.014*
Normal	183 (56.8)	28 (84.8)		73 (57.0)	106 (56.1)	16 (88.9)	12 (75.0)	4 (100.0)	
Positive	139 (43.2)	5 (15.2)		55 (43.0)	83 (43.9)	2 (11.1)	4 (25.0)	0 (0.0)	

4. Limitations

This study has several limitations. First, the random sample was predominantly female, leading to an unequal gender distribution which may result in sample bias, unequal variances, and a loss of statistical power. Additionally, the lacks of sociodemographic information such as the level of education and job position limits the ability to evaluate the association of these factors with the study outcomes. Next, the study lack of longitudinal data in order to assess the long-term psychological impact of the COVID-19 pandemic on the participants. Finally, the study did not capture comprehensive dimensions of assessing psychological symptoms as it only used DASS-21 and IER scales only.

5. Conclusion

The study examined the psychological symptoms; depression, anxiety, stress and post-traumatic stress disorder (PTSD) experienced by KPJU and its companies' employers and students during COVID-19 pandemic. Our study reported that students and staff experienced normal to mild levels of depression, anxiety, stress and PTSD symptoms during the pandemic. Positive symptoms of depression, anxiety and stress were observed in females. However, depression, anxiety and stress are reported to be less likely to be associated with gender and age group, which is consistent with previous findings (Al Banna et al., 2020; Cam et al. 2021; Wang et al., 2021). PTSD symptoms show significant difference between genders and age groups. In conclusion, our study suggested symptoms

of depression, anxiety, stress and PTSD were reported in females and age of 21 – 30 respondents were likely to have symptoms of PTSD. This is consistent with the findings of earlier studies.

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7. References

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