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## Psychological Impact and Social Support Received during COVID-19 among Nursing Students

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### Abstract

Uncertainty of the COVID-19 outbreak impacts mental health mainly among university students. This research seeks to identify the psychological impact and social support received among nursing students in UiTM Puncak Alam during COVID-19. A cross-sectional study used Depression Anxiety Stress Scale (DASS-21) and the Impact on Social and Family Support questionnaire among 114 nursing students. Students' anxiety ( $2.10 \pm 1.20$ ) was higher than depression ( $1.50 \pm 0.73$ ). However, participants reported receiving substantial social support, especially from family members ( $1.30 \pm 0.46$ ). In conclusion, half of the participants showed the psychological impact; however, there was an increase in social support during the COVID-19 outbreak.

Keywords: psychological impact; social support; nursing students; COVID-19

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### 1.0 Introduction

COVID-19 is a new novel coronavirus strain. "CO" accounts for Corona, VI serves for Virus, D stands for Disease, and 19 refers to discovered diseases year (Cennimo, 2021). COVID-19 impacts worldwide, not just on the education, financial but also on the psychology of a person. The World Health Organization (WHO) has issued a warning about the COVID-19 crisis' potential effect on health and social care workers' mental health. Previous pandemics involving severe acute respiratory syndrome (SARS), and Middle-East respiratory syndrome (MERS), raised worries due to the impact of several mental comorbidities, including depression, anxiety, and stress symptoms (Chua et al., 2004; Park et al., 2020).

Malaysia's first case of COVID-19 was detected on 25<sup>th</sup> January 2020, involving 3 Chinese nationals who had close contact with an infected person in Singapore (Ministry of Health, 2021). The upbeat cases beyond 553 instances urged the Prime Minister of Malaysia to announce a Movement Control Order (MCO) to reduce the rapid spread of COVID-19 starting from 18<sup>th</sup> March 2020 (Prime Minister's Office of Malaysia, 2020). All the institutions were closed due to this decree, and the public were instructed to stay where they are with no social activities permitted. The closure of schools, businesses and the imposition of travel restrictions led to long-term psychological problems among communities (Van Bortel et al., 2016; Loades et al., 2020). Adolescents are also one of the groups most likely to develop high rates of depression and anxiety both before and following forced quarantine (Loades et al., 2020). Furthermore, Cao et al. (2020) found that students who live with their parents or live alone experience much higher anxiety levels.

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## 2.0 Literature Review

Depression statistics globally is more than 264 million people affected (WHO, 2020). During the COVID-19 outbreak, depression rates in the general population may have increased seven times (Bueno-Notivol et al., 2021). The studies also show the overall prevalence of depression was 25% in the general population compared to the global estimate of depression prevalence is from 2017, with a percentage of 3.44% (range from 2% to 6%) (Ritchie & Roser, 2018). In addition, the state of mental health in Malaysians two months after the outbreak of the pandemic shows there were high percentages of reported depressive (59.2%) and anxiety (55.1%) symptoms and stress (30.6%) (Wong et al., 2021).

Women and those aged 18 to 24 indicated substantial levels of psychological damage (Browning et al., 2021; Yang et al., 2021). A study by Odriozola-González et al. (2020) and Wang et al. (2020) found that undergraduate students had substantial depression, anxiety, and stress level than master students. Since the state of Selangor has a significant number of COVID-19 cases, areas with the highest recorded cases of COVID-19 need to be monitored as the number of people affected by the pandemic grows tremendously. Mental health difficulties and challenges have become a major concern for everyone (Parzi & Karim, 2021; Thapa et al., 2020).

Social support is a psychological resource available through interpersonal connections and one's social network (Kocalevent et al., 2018). A lack of social support is a well-known predictor of mental health issues (Alsubaie et al., 2019). A study by El-Zoghby et al. (2020) finds that only one-quarter of people reported receiving social support from peers (24.1%). The study shows that the COVID-19 outbreak has had a significant psychological impact and negatively influenced social support. Since there is limited data on psychological impact and social support received during COVID-19 among health science study precisely nursing, this study aims to identify the psychological impact and social support received during the COVID-19 outbreak among nursing students in UiTM Puncak Alam. The study's objective was to determine the relationship between psychological impact and social support received during the COVID-19 outbreak among nursing students.

## 3.0 Methodology

### 3.1 Study design, location and population

A cross-sectional study was conducted at the UiTM Teknologi Mara Puncak Alam, Selangor. The study population is UiTM nursing students. The inclusion criteria are full-time nursing students in years 2, years 3, or years 4 at UiTM Puncak Alam, Selangor, and registered during March-July 2020 session. The sample size was used Raosoft Sample Size Calculator, using a confidence level of 95%, the response distribution of 50%, and the margin error of 5 %, giving out the recommended sample size of 112. In addition, a simple random sampling using Online Random Generator was used to select participants who met the inclusion criteria. The study participant was UiTM students; therefore, ethical approval was received from the Research Ethics Committee Universiti Teknologi MARA REC/01/2021 (UG/MR/23).

### 3.2 Instrument

In Section A, demographic data consisted of 7 items, including gender, year of study, location during the lockdown, stay with family, parental status, household size, and family income. The participants need to select the answer based on provided chosen given. Section B, Depression Anxiety Stress Scale (DASS-21) English version questionnaire, was adapted from Lovibond & Lovibond (1995) to measure the emotional states of depression, anxiety, and stress. DASS-21 consists of 21-items which are 7-items for subscale. The total scores on the DASS-21 need to be multiplied by 2 to calculate the final score. The scores from each subscale were summed up and categorised as "normal", "mild", "moderate", "severe", and "extremely severe" according to the DASS manual (Lovibond & Lovibond, 1995). Lastly, in Section C, the Impact on Social and Family Support English version questionnaire adapted from Lau et al. (2006) was used to measure family and social support changes. A Perceived Support used to rate as increased, same as before and decreased, based on five questions provided. The greater score obtained indicated participants experiencing better family and social support quality.

### 3.3 Data collection

The participants met the inclusion criteria contacted via Whatsapp to inform a detailed description of the study to be part of the study and the participant's availability to answer the questionnaire. If they agree, the google form link: <https://forms.gle/iMWByAtW8DfE4FHR6> was given to the participant. The objectives of these studies are stated on the first page of the Google Form with the consent form. The submission button only can be clicked as if all the answers were completed respond by the participant. All the data answered was auto-saved in google excel data in google form online. The confidentiality of the data was maintained strictly, as only re researchers could access the data

## 4.0 Findings

### 4.1 Demographic Characteristics

Respondents (n=114) agreed to participate and completely answered the questionnaires. 11.4% (13) were male respondents, and 88.6% (103) were female. 32.5% (37), 38.6% (44), 28.9% (33) of respondents were from year 2, year 3, and year 4 accordingly. The highest

residential location of the respondent was from Selangor 31.6% (36) respondents, followed by Johor, 15.8% (18), and no respondents participated in this study from Sarawak and Perlis. Most of the respondents show that they stayed with family during COVID-19, 83.3% (95) and married parental status 90.4% (103). Only 10.7% (12) respondents had 1-3 people of the household size, and almost half of respondents had 4-5 and more than 6 people in the house, in which 44.7% (51) were in each category. More than half of respondents were from family income lower than RM2,500 per month 50.9% (58), and the lowest was from family income more than RM10,960 per month 7.9% (9). (Refer Table 1).

Table 1 Socio-demographic characteristics of the sample (n=114)

Variables		Frequency (n)	Percentage %
Gender	Male	13	11.4
	Female	101	88.6
Year of study	2	37	32.5
	3	44	38.6
	4	33	28.9
Residential location	Johor	18	15.8
	Negeri Sembilan	4	3.5
	Selangor	36	31.6
	Wilayah Persekutuan KL/Putrajaya/Labuan	3	2.6
	Melaka	2	1.8
	Pahang	4	3.5
	Perak	11	9.6
	Kedah	9	7.9
	Kelantan	13	11.4
	Terengganu	7	6.1
	Pulau Pinang	4	3.5
	Perlis	0	0
	Sabah	3	2.6
Stay with family	Sarawak	0	0
	Yes	95	83.3
	No	19	16.7
Parental status	Married	103	90.4
	Divorced	11	9.6
Household size	1-3	12	10.5
	4-5	51	44.7
	More than 6	51	44.7
Family income (RM)	<2500	58	50.9
	2501 – 3169	16	14.0
	3170 – 4849	17	14.9
	4850 – 10959	14	12.3
	>10960	9	7.9

#### 4.2 The Level Of Psychological Impact Among Nursing Students During The COVID-19 Outbreak

The prevalence score of depression ranged between normal 64% (73), mild 21.9% (25) and moderate 14% (16), with an overall mean ± SD of depression (M=1.50, SD=0.73). The prevalence score of anxiety normal 48.2% (55), mild 10.5% (12), moderate 27.2% (31), severe 11.4% (13), extremely severe 2.6% (3) with overall mean ± SD of anxiety (M=2.10, SD=1.20). Meanwhile, the prevalence score of stress was normal 86% (98), mild, 9.6% (11), and moderate 4.4% (5), with an overall mean ± SD of stress (M=1.18, SD=0.49). The students' anxiety was reported higher compared to depression and stress. This study concluded that the depression level of respondents as the mean 1.50 indicate fall in-between Normal and Mild categories. The anxiety level of respondents falls in between the Mild and Moderate categories (mean 2.10). The stress level of respondents was under the category Normal-Mild (mean 1.18), as shown in Table 2.

Table 2. The Psychological Impact of Nursing Students During The COVID-19 Outbreak (n=114)

Variables		Frequency (n)	Percentage %	Mean ± SD
Depression	Normal	73	64.0	1.50 ± 0.73
	Mild	25	21.9	
	Moderate	16	14.0	
	Severe	0	0	
	Extremely severe	0	0	
Anxiety	Normal	55	48.2	2.10 ± 1.20
	Mild	12	10.5	
	Moderate	31	27.2	
	Severe	13	11.4	
	Extremely severe	3	2.6	

Stress	Normal	98	86.0	1.18 ± 0.49
	Mild	11	9.6	
	Moderate	5	4.4	
	Severe	0	0	
	Extremely severe	0	0	

### 4.3 The Level of Social Support Received During COVID-19

70.2% (80) respondents were becoming more caring for family members feeling during COVID-19. Table 3 shows, less than 10.5% (12) of the respondents felt a decline in social support during the COVID-19 outbreak. The average mean ± SD of sharing of feeling with others when in the blue was reported highest (M=1.65, SD =0.67) compared to the lowest, which is becoming more caring for family members feeling (M=1.30, SD=0.46). Overall, social support received increased during the COVID-19 outbreak.

Table 3. Social Support Received by Students During COVID-19 outbreak (n=114)

Variables		Frequency (n)	Percentage %	Mean ± SD
Support from friends	Increased	58	50.9	1.54±0.58
	Same as before	51	44.7	
	Decrease	5	4.4	
Support from family members	Increased	74	64.9	1.35±0.48
	Same as before	40	35.1	
	Decreased	0	0	
Sharing the feeling with other family members	Increased	62	54.4	1.51±0.60
	Same as before	46	40.4	
	Decreased	6	5.3	
Sharing of feeling with others when in the blue	Increased	52	45.6	1.65±0.67
	Same as before	50	43.9	
	Decreased	12	10.5	
Becoming more caring for family members feeling	Increased	80	70.2	1.30±0.46
	Same as before	34	29.8	
	Decreased	0	0	

### 4.4 The Relationship Between Psychological Impact and Social Support Received During The COVID-19 Outbreak

Table 4 shows that participants with increased social support from friends reported more to no depression (n=42, 72.4%). Meanwhile, decreased social support participants likely lead to mild to extreme depression (n=3, 60%). Therefore, there was a significant difference between depression and support from family members ( $\chi^2(1) = 5.27$ , p-value = 0.02), sharing the feeling with another family member ( $\chi^2(2) = 9.00$ , p-value = 0.01), sharing a feeling with others when in blue ( $\chi^2(2) = 6.11$ , p = 0.05), and becoming more caring for family members feeling ( $\chi^2(1) = 6.06$ , p-value = 0.01).

Table 4 The relationship depression and social support received during the COVID-19 outbreak (n=114)

Variable	Depression, n(%)		Test Statistics (df)	p value
	No	Mild to extremely severe		
Support from friends			4.16 (2)	0.11 <sup>b</sup>
	Increased	16(27.6)		
	Same as before	22(43.1)		
Support from family members	Decreased	3(60.0)	5.27 (1)	0.02 <sup>a</sup>
	Increased	21(28.4)		
	Same as before	20(50)		
Sharing the feeling with other family members	Decreased	0(0)	9.00 (2)	0.01 <sup>b</sup>
	Increased	15(24.2)		
	Same as before	22(47.8)		
Sharing of feeling with others when in the blue	Decreased	4(66.7)	6.11 (2)	0.05 <sup>a</sup>
	Increased	13(25)		
	Same as before	21(42)		
Becoming more caring for family members feeling	Decreased	7(58.3)	6.06 (1)	0.01 <sup>a</sup>
	Increased	13(25)		
	Same as before	21(42)		

Increased	57(71.3)	23(28.7)
Same as before	16(47.1)	18(52.9)
Decreased	0(0)	0(0)

<sup>a</sup>Pearson Chi-Square  
<sup>b</sup>Fisher Exact Test

Table 5 shows that participants received increased social support from friends (n=34, 58.6%), family members (n=38, 51.4%) reported no anxiety during the COVID-19 outbreak. However, the participant who decreased sharing of their feeling with other family members indicates they had mild to extremely severe anxiety (n= 4,66.7%) compared to no had anxiety (n= 2, 33.3%). Overall, only increased support from friends had a significant relationship with anxiety p = 0.04.

**Table 5. Anxiety and Social Support Received During The COVID-19 Outbreak (n=114)**

Variable	Anxiety, n(%)		Test Statistics (df)	p value
	No	Mild to extremely severe		
Support from friends			6.20 (2)	0.04 <sup>b</sup>
Increased	34(58.6)	24(41.4)		
Same as before	18(35.3)	33(64.7)		
Decreased	3(60.0)	2(40.0)		
Support from family members			0.82 (1)	0.37 <sup>a</sup>
Increased	38(51.4)	36(48.6)		
Same as before	17(42.5)	23(57.5)		
Decreased	0(0)	0(0)		
Sharing the feeling with other family members			0.59 (2)	0.86 <sup>b</sup>
Increased	30(48.4)	32(51.6)		
Same as before	23(50)	23(50)		
Decreased	2(33.3)	4(66.7)		
Sharing of feeling with others when in the blue			3.77 (2)	0.15 <sup>a</sup>
Increased	29(55.8)	23(44.2)		
Same as before	19(38.0)	31(62.0)		
Decreased	7(58.3)	5(41.7)		
Becoming more caring for family members feeling			0.03 (1)	0.87 <sup>a</sup>
Increased	39(48.8)	41(51.2)		
Same as before	16(47.1)	18(52.9)		
Decreased	0(0)	0(0)		

<sup>a</sup>Pearson Chi-Square  
<sup>b</sup>Fisher Exact Test

The study found no stress reported when receiving increased support from friends (n=53, 91.4%) and family members (n=66, 89.2%). In addition, decreased sharing feelings with other family members (n=5, 83.3%) and their feelings with others when in blue (n=9, 75%) also indicate no stress reported. Therefore, there is no significant relationship between stress and social support (p > 0.05) (refer Table 6)

**Table 6. The Relationship Between Stress and Social Support Received During The COVID-19 Outbreak (n=114)**

Variable	Stress, n(%)		Test Statistics (df)	p value
	No	Mild to extremely severe		
Support from friends			2.87 (2)	0.20 <sup>b</sup>
Increased	53(91.4)	5(8.6)		
Same as before	41(80.4)	10(19.6)		
Decreased	4(80.0)	1(20.0)		
Support from family members			1.82 (1)	0.18 <sup>a</sup>
Increased	66(89.2)	8(10.8)		
Same as before	32(80.0)	8(20)		
Decreased	0(0)	0(0)		
Sharing the feeling with other family members			4.13 (2)	0.13 <sup>a</sup>
Increased	57(91.9)	5(8.1)		
Same as before	36(78.3)	10(21.7)		
Decreased	5(83.3)	1(16.7)		
Sharing of feeling with others when in the blue			2.20 (2)	0.33 <sup>a</sup>
Increased	47(90.4)	5(9.6)		
Same as before	42(84.0)	8(16)		
Decreased	9(75)	3(25)		
Becoming more caring for family members feeling			0.52 (1)	0.56 <sup>b</sup>
Increased	70(87.5)	10(12.5)		

Same as before	28(82.4)	6(17.6)
Decreased	0(0)	0(0)

<sup>a</sup>Pearson Chi-Square  
<sup>b</sup>Fisher Exact Test

**4.5 The Relationship Between Year of Study and Depression**

When the difference was compared between the year of study and level of depression, participants in year 2 had mild to extremely severe depression (n=19, 48.6%) than the participant in year 4, (n=13, 39.4%). Therefore, there is a marginally significant relationship between the year of study with depression  $\chi^2(2) = 6.10, p = 0.05$ .

Table 7. Year of Study and Depression During COVID-19 (n=114)

Variable	Depression, n(%)		$\chi^2$ (df)	p value
	No	Mild to extremely severe		
Year of study			6.10 (2)	0.05
Year 2	19(51.4)	18(48.6)		
Year 3	34(77.3)	10(22.7)		
Year 4	20(60.6)	13(39.4)		

\*p<0.05 was statistically significant

**5.0 Discussion**

**5.1 Psychological Impact Among Nursing Students During The COVID-19 Outbreak**

The level of psychological impact among nursing students indicates that more than half of the participants have depression, anxiety and stress. This result is comparable with one study's findings in Malaysia by Faez et al. in 2020 using the same scale where 64.94%, 67.21%, and 59.29% of the participants reported depression, anxiety, and anxiety, and stress, respectively. A study by Ghazawy et al. (2020) during May 2020 also found that 70.5%, 53.6%, and 47.8% of Egyptian students, respectively, suffered from depression, anxiety, and stress. Another study by Odriozola-González et al., (2020) in March 2020 found 2530 respondents were showed moderate to severe depressions, anxiety, and stress scores by 34.19%, 21.34%, and 28.14%, respectively. The score of depression and stress was reported higher in the previous study because of the timeline conducted. The previous research was conducted within 1-5 months of the WHO announced public health emergency where the impact and effect are apparent. However, this study found the anxiety was higher compared to the previous study. This shows that the longer duration of the COVID-19 outbreaks, people's anxiety increases. Thus in the future, to overcome psychological impact during quarantine, social support such as an online counselling strategy could be beneficial to lessen students psychological problems.

**5.2 Social Support Received By Nursing Students During COVID-19 Outbreak**

The social support received by nursing students in UiTM Puncak Alam during COVID-19 raise among friends and family. They also regularly communicate their feelings with family members and have been known to share feelings with people out of the blue. As a result, the sensation of becoming more caring for family members has grown. Previous studies also supported this result, finding where social support increased during the outbreak (El-Zoghby et al.,2020; Liu & Wang, 2021). Furthermore, other studies conducted by Loades et al. (2020) also indicate that the sluggish progress of the outbreak causes individuals to bond and seek support. Therefore, the effect of COVID-19 strengthens most of the nursing students' social support system needed during the outbreak.

**5.3 The Relationship of Psychological Impact Among Nursing Students and The Social Support**

This study revealed a significant relationship between depression and social support. It shows that increased support from a family member and others will suppress their depression level. A study on the Effect of Social Support on Mental Health in Chinese Adolescents During the Outbreak of COVID-19 by Qi et al. (2020) reveals that only teenagers with medium and low levels of social support had a greater incidence of mental health issues. Frontline employees, or the organisations they worked for, were unaware of the resources available to help them maintain their mental health (Pollock et al., 2020). They were also relatively confident in having effective formal and informal communication, giving positive, safe, and supportive learning environments for frontline staff. This study is similar to the previous finding that increased social support suppresses their depression. This is because communication will make some feel at ease as effective communication builds trust, prevents and resolves someone's problem, and may provide them direction and clarification (CLIMB, 2019).

**5.6 The Relationship of The Year of Study and Depression Among Nursing Students During COVID-19 Outbreak**

There is a marginally significant association between depression and the year of study. Similarly, depression among students was linked to uncertainty about their grades and suddenly overwhelming academic online tasks and sessions, which contributed to the onset of COVID-19 (Hamaideh et al., 2021). Furthermore, Sahu (2020) and Yang et al., (2021) highlighted the closures of universities due to the COVID-19 interrupting college students' learning process. As a result of the institution's closure, which forces the online learning process, students are easily depressed by the tasks assigned according to the core subjects in each year of study. Thus, a further step must be taken to create awareness among academicians that academic workload and separation from the university during COVID-19 negatively affected student depression.

## 6.0 Conclusion & Recommendations

In conclusion, this study reveals that more than half of the participants show the psychological impact during COVID-19. Although there is a psychological impact, there was an increase in social support received during the outbreak. The best approach to deal with the psychological effects of COVID-19 is to get advice from a professional. An increase in social support also can alter mental health. As a limitation of the study, DASS-21 is a screening tool to identify depression, stress and anxiety. In the future, another psychological test should be used together with DASS to measure possible mental illness that may occur for participants who had severe depression, stress, and anxiety. Furthermore, since COVID-19 is nowhere to be seen in the end, the factor affecting the students' psychological needs to be identified to reduce psychological impact. Therefore, the universities need to pay special attention to those students battling psychological impact cause this situation might worsen if left untreated. This finding suggested in the future, to overcome psychological impact during quarantine, social support such as an online counselling strategy could be beneficial to lessen students' psychological problems.

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## Paper contribution to Related Field of Study

The result of this study raises awareness of the psychological impact of COVID-19 on nursing students. In addition, perhaps the outcome of this study could support developing online counselling strategies to minimise the psychological effect during the COVID-19 outbreak.

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