ORIGINAL ARTICLE

The Impact of the Covid-19 Pandemic on Depression, Anxiety, and Stress Among Teachers in Malaysia: A Cross-sectional Study

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ABSTRACT

Introduction: Educational sector in Malaysia had been severely affected by COVID-19 pandemic. Due to the erratic nature of COVID-19 cases in Malaysia for the past two years, teaching style has shifted back and forth between home-based teaching and learning (PdPR) sessions and face-to-face teaching. Teachers must be prepared for any unanticipated shifts that occurred throughout the pandemic due to the implementation of movement control orders that resulted in school closures. Thus, this study aims to measure the depression, anxiety, stress, and quality of life among Malaysian teachers during the COVID-19 pandemic. **Methods:** Between March 21st and June 1st, 2021, 391 teachers completed Google form questionnaires containing the DASS-21, SF-36, and socio-demographic data, which were distributed online via WhatsApp, Telegram, Twitter, and Facebook. **Results:** : According to the findings of this study, most teachers (55.5 %) were anxious, followed by depression (39.9 %) and stress (27.6 %). Depression, anxiety, and stress were all statistically related to age ($p<0.05$), marital status ($p<0.01$), and the number of children ($p<0.05$). When it came to quality of life, teachers had the highest physical functioning score about 86 but the lowest vitality at 62.3. All domains of quality of life were found negatively correlated with depression, anxiety, and stress ($p<0.05$). **Conclusion:** The COVID-19 pandemic affected the depression, anxiety, and stress among the Malaysian teachers. To improve teachers' well-being and mental health, effective policies, guidelines, and planning, as well as massive resources and support from administrative authorities, would be necessary.
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INTRODUCTION

In response to an upsurge in COVID-19 cases across the country, Malaysia implemented six series of movement control order (MCO), with schools closing and reopening at random times from 2020 to 2021 (1). Consequently, all students were required to participate in home-based education and learning (PdPR) sessions. This was a first-time experience for Malaysian schools, particularly for teachers and students, in organising the teaching and learning style to fit the pandemic situation. The difficulties were not only on a technical level, such as internet requirements, laptop availability, and practical lessons, but also on an emotional level. The online approach radically altered the responsibilities and techniques of teaching for teachers, and not all of them were well-prepared for this new direction because they had not been properly trained.

According to Kaden (2), resources provided by school administrators such as internet hotspots and appropriate technologies needed for online teaching, as well as investing in computer technology, the availability of

functioning technology support infrastructure, and training for teachers in their pre-pandemic situation, had aided in the transition to online teaching during this pandemic. However, according to Macintyre, Gregersen, and Mercer (3), teachers were not adequately prepared to transition from face-to-face instruction to online education in the wake of the COVID-19 outbreak. Yet, teachers were expected to simply follow and do their best by adapting, changing, and continuing to work toward effective teaching using online resources.

Al Lily et al. (4) found that due to the sudden adjustment in teaching method, the teachers were overwhelmed, producing a sense of urgency, emergency, and stress as their workload considerably rose, making their psychological state unstable and causing their mind to stop working and freeze. Al Lily et al. (4) also reported that teachers during the stay-at-home phase experienced pandemic-related stress, anxiety, depression, marital violence, and even divorce, which hampered their teaching processes.

The impact of the COVID-19 crisis on Malaysian teachers' psychological well-being and quality of life has yet to be established. Thus, the goals of this study are to determine the level of depression, anxiety, stress, and quality of life among Malaysian teachers during the COVID-19 pandemic and its correlation with the socio-demographic factors.

MATERIALS AND METHODS

Sample
This cross-sectional survey was administered to teachers nationwide between the 21st of March and the 1st of June in 2021. Teachers from primary and secondary schools in Malaysia were invited to participate in this study through the distribution of questionnaires using social media networks such as Facebook, Twitter, WhatsApp, and Telegram. Participants provided informed consent to participate in an anonymous survey by completing and submitting the questionnaire electronically in an online form hosted on Google Docs. All data were self-reported. The participants were chosen using a snowball sampling method. When referring to the 419 904 total number of Malaysia school teachers in 2019, a target of 384 should already represent the sample population with a 95 percent confidence level. For this study, a total of 391 teachers completed the survey where the sufficient sample size was obtained via sample size calculation (Raosoft, Inc.). The study was approved by the University Research Ethics Committee (REC/08/2021 (MR/703).

Measures

Demographics
Demographic information included gender, ethnicity, age, marital status, number of children, type of teachers,

and teaching subjects.

DASS-21
DASS-21 is a simplified version of DASS-42 that includes depression, anxiety, and stress scales with seven items each (5). Both English and Malay version of the DASS-21 were used where the Malay version was translated and certified for Malaysians by Musa (6). There were seven subscales for dysphoria, hopelessness, self-deprecation, lack of interest, anhedonia, and inertia. Anxiety was divided into four subscales: autonomic arousal, skeletal musculature effects, subjective experience of anxious affect, and situational anxiety. While the five subscales of the stress test are difficulty relaxing, nervousness, easily upset, irritability, and impatience (7).

The participants were required to rate their recent experiences on a four-point severity or frequency scale. They can rate each question as follows: 0 for "did not apply to me at all", 1 for "applied to me to some degree, or some of the time", 2 for "applied to me to a considerable degree, or a good part of the time", and 3 for "applied to me very much, or most of the time". The DASS-21 result derived by adding the scores of each subscale of depression, anxiety, and stress and multiplying by 2. "Normal", "mild", "moderate", "severe", and "very severe" were the final results for participants' depression, anxiety, and stress.

SF-36
The SF-36 Health Survey Questionnaire (SF-36) is a general health-related quality of life questionnaire with eight subscales addressing generic health concepts that are deemed universal and reflective of basic human functions and well-being (8). The questionnaire includes both an English and a Malay version of the SF-36, with the Malay version demonstrating adequate reliability and validity (9). Physical functioning, social functioning, role limitations (physical), bodily pain, general health, mental health, role limitations (emotional), and vitality are the eight health domains. Each of the eight subscales has a score ranging from 0 to 100. The greater the item's score, the better the item's health status. If the subjects do not respond to a left blank item, the item will be eliminated from the score calculation.

Data analysis
Statistical analyses were conducted using the Statistical Package for Social Sciences, SPSS, 25.0 (IBM). Descriptive analyses examined the distribution of all variables of interest. Descriptive statistics, Pearson's chi-squared test, Pearson correlation were applied to examine the data. The descriptive data will provide mean, standard deviation, median, skewness and frequencies of the DASS-21 and SF-36 scores to determine the level of depression, anxiety, stress, and quality of life. At the same time, Pearson's chi-square test was used to test the socio-demographic factors with the association and occurrence of depression, anxiety,

and stress by changing the final five levels of DASS-21 to only two categories. The two categories were "normal" and "mild" categories were classified as "NO" while "moderate" to "extremely severe" as "YES" following the method from a previous study by Verma and Mishra (10). Finally, Pearson correlation was used to determine the relationship between depression, anxiety, and stress and teacher quality of life. The significance level was established at a p-value <0.05 for all tests.

RESULT

Demographics
In total, 290 (74.2%) participants were females and 101 (25.8%) were males. Malay participants were the main ethnic involved in the study (90.5%), followed by Indian (2.8%), Chinese (3.1%) and others (3.6%) Majority of the participants belonged to 21–30 years age group (39. 1%) followed by 31–40 years (25. 1%), 41–50 years (19.9%) and 51–60 years (15.9%). About 232 participants (59.3%) were married, 150 were single (38.4%), 7 were separated/divorced and 2 widow/ widower. Out of the participants, 374 (95.7%) had 5 children and below and only 17 (4.3%) had more than 5 children. All teachers involved in the study were balanced between primary (192, 49.1%) and secondary teachers (199, 50.0%). Most of the participants (298) taught subjects in non-science field (76.2%) and 93 participants taught Science and Mathematics (23.8%). All the demographics of the participants are presented in Table I.

Table I. Demographics of the participants.

Variables	n (%)
Gender	
Male	101 (25.8%)
Female	290 (74.2%)
Ethnicity	
Malay	354 (90.5%)
Indian	11 (2.8%)
Chinese	12 (3.1%)
Others	14 (3.6%)
Age	
21-30	153 (39.1%)
31-40	98 (25.1%)
41-50	78 (19.9%)
51-60	62 (15.9%)
Marital Status	
Single	150 (38.4%)
Married	232 (59.3%)
Widowed	2 (0.5%)
Divorced	7 (1.8%)

CONTINUE

Table I. Demographics of the participants.(CONT.)

Variables	n (%)
Number of Children	
0	177 (45.3%)
1	34 (8.7%)
2	41 (10.5%)
3	43 (11.0%)
4	59 (15.1%)
5	20 (5.1%)
>5	17 (4.3%)
Type of Teacher	
Primary School	192 (49.1%)
Secondary School	199 (50.9%)
Teaching Subject	
Language	155 (39.6%)
Mathematics or Additional Mathematics	45 (11.5%)
Science	48 (12.3%)
Physical Education	21 (5.4%)
Art or Music	11 (2.8%)
History	15 (3.8%)
Islamic or Moral Studies	43 (11.0%)
Accounting	4 (1.0%)
Others	49 (12.5%)

Depression, anxiety, and stress
The average score of DASS-21 for this study was presented in Table II. Majority of teachers were free from any depression and stress with percentage score of 60.1%, and 72.4%, respectively. The anxiety among teachers on the other hand was 55.5% from mild to extremely severe categories.

Table II Level of depression, anxiety, and stress among teachers

Level	Depression		Anxiety		Stress	
	Number (n)	Percentage (%)	Number (n)	Percentage (%)	Number (n)	Percentage (%)
Normal	235	60.1	174	44.5	283	72.4
Mild	59	15.1	32	8.2	46	11.8
Moderate	56	14.3	102	26.1	31	7.9
Severe	26	6.6	43	11	24	6.1
Extremely Severe	15	3.8	40	10.2	7	1.8

Quality of life

Based on SF-36 Health Survey Questionnaire, the mean scores were highest for physical functioning (86.00), followed by role physical (83.38), social functioning (82.03), role emotional (79.97), bodily pain (76.41), mental health (73.21), general health (69.09), and lastly, vitality (62.99) (Table III).

Table III: The quality of life domains among teachers in Malaysia

Quality of Life Domains	Mean (SD)	Median	Reference (mean) for Malaysian Population (11)
Physical Functioning	86 ±17.83	95	85.98
Role Physical	83.38 ±32.25	100	82.03
Social Functioning	82.03 ±19.78	87.5	83.73
Role Emotional	79.97 ±36.03	100	79.23
Bodily Pain	76.41 ±20.31	77.5	69.96
Mental Health	73.21 ±18.04	76	74.66
General Health	69.09 ±19.45	70	66.74
Vitality	62.99 ±19.47	65	66.79

Association between depression, anxiety, and stress and socio-demographic factors

Age, marital status, and number of children, those were contributed to the level of depression, anxiety, and stress among teachers (p<0.05). Other demographic factors such as sex and ethnicity were not relevant factors. Teaching subjects in primary or secondary school were also not associated factor as been tabulated in Table IV.

Correlation between depression, anxiety, and stress and quality of life

Depression, anxiety, and stress showed significant differences in correlation to all eight domains for quality of life as shown on Table V.

DISCUSSION

This study was conducted to determine the prevalence of depression, anxiety, and stress, as well as the quality of life of Malaysian teachers during COVID-19 pandemic. According to the findings of this study, some of the teachers who took part in the survey were suffering from anxiety, depression, and stress. Moreover, half of the teachers (55.5 %) reported mild to severe anxiety.

TableI IV: Pearson's chi-square test to determine the association between socio-demographic factors and depression, anxiety, and stress of Malaysian teachers

Variables	Depression		Anxiety		Stress	
	Yes	No	Yes	No	Yes	No
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Gender						
Male	26 (25.7%)	75 (74.3%)	42 (41.6%)	59 (58.4%)	15 (14.9%)	86 (85.1%)
Female	71(24.5%)	219(75.5%)	143(49.3%)	147(50.7%)	47(16.2%)	243 (83.8%)
p value	0.801		0.18		0.748	
Ethnicity						
Malay	86(24.3%)	268(75.7%)	167(47.2%)	187(52.8%)	54(15.3%)	300 (84.7%)
Indian	2 (18.2%)	9 (81.8%)	5 (45.5%)	6 (54.5%)	2 (18.2%)	9 (81.8%)
Chinese	3 (25.0%)	9 (75.0%)	5 (41.7%)	7 (58.3%)	2 (16.7%)	10 (83.3%)
Others	6 (42.9%)	8 (57.1%)	8 (57.1%)	6 (42.9%)	4 (28.6%)	10 (71.4%)
p value	0.431		0.87		0.606	
Age						
21-30	49(32.0%)	104(68.0%)	83 (54.2%)	70 (45.8%)	39 (25.5%)	114 (74.5%)
31-40	29(29.6%)	69 (70.4%)	48 (49.0%)	50 (51.0%)	16(16.3%)	82 (83.7%)
41-50	11(14.1%)	67 (85.9%)	29 (37.2%)	49 (62.8%)	6 (7.7%)	72 (92.3%)
51-60	8 (12.9%)	54 (87.1%)	25 (40.3%)	37 (59.7%)	1 (1.6%)	61 (98.4%)
p value	0.002*		0.058		< 0.001*	
Marital Status						
Single	55(36.7%)	95(63.3%)	87 (58.0%)	63 (42.0%)	40(26.7%)	110(73.3%)
Married	40(17.2%)	192(82.8%)	95(40.9%)	137(59.1%)	22 (9.5%)	210(90.5%)
Widowed	0 (0.0%)	2 (100.0%)	1 (50.0%)	1 (50.0%)	0 (0.0%)	2(100.0%%)
Divorced	2 (28.6%)	5 (71.4%)	2 (28.6%)	5 (71.4%)	0 (0.0%)	7 (100.0%)
p value	< 0.001*		0.009*		< 0.001*	

Table IV Pearson's chi-square test to determine the association between socio-demographic factors and depression, anxiety, and stress of Malaysian teachers(CONT.)

Variables	Depression		Anxiety		Stress	
	Yes	No	Yes	No	Yes	No
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Number of Children						
0	60(33.9%)	117(66.1%)	99(55.9%)	78 (44.1%)	45(25.4%)	132 (74.6%)
1	8 (23.5%)	26 (76.5%)	19(55.9%)	15 (44.1%)	5 (14.7%)	29 (85.3%)
2	9 (22.0%)	32 (78.0%)	16(39.0%)	25 (61.0%)	5 (12.2%)	36 (87.8%)
3	12(27.9%)	31 (72.1%)	18(41.9%)	25 (58.1%)	2 (4.7%)	41 (95.3%)
4	6 (10.2%)	53 (89.8%)	22(37.3%)	37 (62.7%)	4 (6.8%)	55 (93.2%)
5	1 (5.0%)	19 (95.0%)	4 (20.0%)	16 (80.0%)	1 (5.0%)	19 (95.0%)
More than 5	1 (5.9%)	16 (94.1%)	7 (41.2%)	10 (58.8%)	0 (0.0%)	17 (100.0%)
p value	0.001*		0.011*		< 0.001*	
Type of Teacher						
Primary School	48(25.0%)	144(75.0%)	84(43.8%)	108(56.3%)	33(17.2%)	159 (82.8%)
Secondary School	49(24.6%)	150(75.4%)	101(50.8%)	98 (49.2%)	29(14.6%)	170 (85.4%)
p value	0.931		0.166		0.479	
Teaching Subject						
Language	48(31.0%)	107(69.0%)	81 (52.3%)	74 (47.7%)	35(22.6%)	120 (77.4%)
Mathematics or Additional Mathematics	9 (20.0%)	36 (80.0%)	22 (48.9%)	23 (51.1%)	4 (8.9%)	41 (91.1%)
Sciences	10(20.8%)	38 (79.2%)	18 (37.5%)	30 (62.5%)	3 (6.3%)	45 (93.8%)
Physical Education	3 (14.3%)	18 (85.7%)	5 (23.8%)	16 (76.2%)	3 (14.3%)	18 (85.7%)
Art or Music	1 (9.1%)	10 (90.9%)	4 (36.4%)	7 (63.6%)	1 (9.1%)	10 (90.9%)
History	4 (26.7%)	11 (73.3%)	10 (66.7%)	5 (33.3%)	1 (6.7%)	14 (93.3%)
Islamic or Moral Studies	6 (14.0%)	37 (86.0%)	20 (46.5%)	23 (53.5%)	6 (14.0%)	37 (86.0%)
Accounting	1 (25.0%)	3 (75.0%)	1 (25.0%)	3 (75.0%)	0 (0.0%)	4 (100.0%)
Others	15(30.6%)	34 (69.4%)	24 (49.0%)	25 (51.0%)	9 (18.4%)	40 (81.6%)
p value	0.235		0.164		0.123	

Statistically significant at p-value <0.05

Table V: Pearson correlation between DASS-21 and SF-36 of Malaysian teachers

Variables	Depression	Anxiety	Stress
Depression	1	.735**	.820**
Anxiety	.735**	1	.852**
Stress	.820**	.852**	1
Score Physical Functioning	-.273**	-.336**	-.328**
Score Role limitation (Phy Health)	-.346**	-.375**	-.376**
Score Role Limitation (Emo Prob)	-.542**	-.524**	-.527**
Score Energy/Fatigue	-.598**	-.598**	-.586**
Score Emotional Well-Being	-.703**	-.696**	-.718**
Score Social Functioning	-.607**	-.562**	-.621**
Score Pain	-.382**	-.482**	-.463**
Score General Health	-.534**	-.570**	-.582**
Health Change	-.213**	-.193**	-.198**

** Correlation is significant at the 0.01 level (2-tailed).

There are several factors that contribute to teachers' anxiousness. Tan [11] revealed that during the home-based teaching and learning (PdPR) period, teachers in Malaysia were primarily concerned to accurately assessing their students and determining whether their students were doing well in their studies. Furthermore, the moment when schools reopened for face-to-face teaching may induce anxiety among all teachers, students, and parents, as there have been COVID-19 cases reported at schools across the country. As a result, people were concerned about spreading the COVID-19 virus throughout the community [12]. It was reported that the time from 21st March 2021 to 1st June 2021, when the questionnaire was distributed, was the worst phase of COVID-19 case development in Malaysia, with the most COVID-19 daily cases recorded on 29th May 2021, with 9,020 new COVID-19 daily cases. The scenario had produced upheaval in the educational sector. Schools had only begun to resume for physical

schooling in March and April 2021, but the schools were closed again in May and returned to PdPR until further notice from the Ministry of Education. In a nutshell, this uncertain moment in the educational sector led to the outcome of this study, which revealed that teachers were feeling more anxious. Even though anxiety was significantly related to depression and stress, not all teachers who experience anxiety go on to acquire depression or stress.

Quality of life which was assessed under eight domains of SF-36 indicated that physical functioning scored the highest, followed by role physical, social functioning, role emotional, bodily pain, mental health, general health, whereas vitality scored the lowest. The mean scores for this study were close to the average scores for the Malaysian population (13). It was estimated that teachers had no or fewer issues carrying out their daily activities during the COVID-19 pandemic, as the mean score for physical functioning, role physical, and role emotional were all higher. Three domains, however, were found to be lower than the Malaysian population's average: social functioning, mental health, and vitality. Due to the pandemic's restricted movement, it's understandable that social activities even with family members and close friends was quite restricted. According to Mion et al (14), the lower score on mental health and vitality was associated to burnout syndrome due to a decrease in job satisfaction and personal matters. The increase in exhaustion during the pandemic, according to Sokal et al (15), exacerbated the burnout. As a matter of fact, those working in the educational sector had the highest levels of work exhaustion during the COVID-19 crisis (16).

The role of socio-demographic status towards depression, anxiety, and stress were studied among teachers during the pandemic. The findings of this study revealed that there was an association between age and depression as well as stress. Young teachers between the ages of 21 and 40 had a greater rate of depression and stress, while senior teachers between the ages of 41 and 60 had a lower rate. This predicament arose from a previous study that found that teachers aged 23 to 35 years old were more stressed than those aged 36 to 46 years old (17). This is supported by Varma et al. (18) where it was found that elderly persons were more resilient than other age groups. This study also discovered an association between marital status and depression, anxiety, and stress, with higher rates of depression, anxiety, and stress among teachers who were single compared to those who were married. This could be because married persons can rely on their spouses for social support during the COVID-19 outbreak (19). Furthermore, there was an association between the number of children and depression, anxiety, and stress, with those who did not have children having a greater rate of depression, anxiety, and stress during the pandemic. In contrast, an earlier study found that

teachers with children are more depressed than those without children at the start of the academic year during the COVID-19 pandemic (20). Because they showed low percentages of depression, anxiety, and stress, the teachers with children in this study most likely had a high level of positive emotionality and resilience in dealing with the pandemic (21). Meanwhile, the type of teacher and the topics they taught did not have a significant impact on depression, anxiety, or stress. In this study, we also correlate the association between depression, anxiety, and stress with all the domains of quality of life. Depression, anxiety, and stress were all negatively significant related to quality of life. This stated that depression, anxiety, and stress should be well managed in order to achieve a high quality of life.

CONCLUSION

In conclusion, this study found a measure of depression, anxiety, and stress among Malaysian teachers during the COVID-19 pandemic. Age related to depression and stress, while marital status and the number of children were independently associated with depression, anxiety, and stress. During the pandemic, Malaysian teachers' quality of life was also found to be inversely related to depression, anxiety, and stress. This study, however, is merely a quantitative study that cannot be generalised owing to snowball sampling and does not establish a causal association because it only provides a snapshot of general teachers' conditions at a particular time. Further generalised studies that integrate quantitative and qualitative studies, such as in-depth interviews, as well as measuring causal relationships, should be conducted to better understand what Malaysian teachers faced during the COVID-19 pandemic. A study after the COVID-19 pandemic can also be conducted to compare teachers' well-being before, during, and after the pandemic.

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REFERENCES

1. Mohamad Nasri N, Husnin H, Mahmud SND, Halim L. Mitigating the COVID-19 pandemic: A snapshot from Malaysia into the coping strategies for pre-service teachers' education. Journal of Education for Teaching. 2020;46(4):546-53.
2. Kaden U. COVID-19 school closure-related changes to the professional life of a K–12 teacher. Education Sciences. 2020;10(6):165.
3. MacIntyre PD, Gregersen T, Mercer S. Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. System. 2020;94:102352.

4. Al Lily AE, Ismail AF, Abunasser FM, Alqahtani RHA. Distance education as a response to pandemics: Coronavirus and Arab culture. Technology in society. 2020;63:101317.

5. Lovibond PF, Lovibond SH. The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. Behaviour research and therapy. 1995;33(3):335-43.

6. Musa R, Fadzil MA, Zain Z. Translation, validation and psychometric properties of Bahasa Malaysia version of the Depression Anxiety and Stress Scales (DASS). ASEAN Journal of Psychiatry. 2007;8(2):82-9.

7. Dalky HF, Gharaibeh A, editors. Depression, anxiety, and stress among college students in Jordan and their need for mental health services. Nursing forum; 2019: Wiley Online Library.

8. Ware Jr JE, Sherbourne CD. The MOS 36-item short-form health survey (SF-36): I. Conceptual framework and item selection. Medical care. 1992:473-83.

9. Sararaks S, Azman A, Low L, Rugayah B, Aziah A, Hooi L, et al. Validity and reliability of the SF-36: the Malaysian context. Medical Journal of Malaysia. 2005;60(2):163.

10. Verma S, Mishra A. Depression, anxiety, and stress and socio-demographic correlates among general Indian public during COVID-19. International Journal of Social Psychiatry. 2020;66(8):756-62.

11. V T. Prolonged school closure in Malaysia due to COVID-19 shakes up learning experience. 2021.

12. Ejeh FE, Owoicho S, Saleh AS, Madukaji L, Okon KO. Factors associated with preventive behaviors, anxiety among healthcare workers and response preparedness against COVID-19 outbreak: a one health approach. Clinical Epidemiology and Global Health. 2021;10:100671.

13. Azman A, Sararaks S, Rugayah B, Low L, Azian A, Geeta S, et al. Quality of life of the Malaysian general population: results from a postal survey using the SF-36. Medical Journal of Malaysia. 2003;58(5):694-711.

14. Mion G, Hamann P, Saleten M, Plaud B, Baillard C. Psychological impact of the COVID-19 pandemic and burnout severity in French residents: A national study. The European Journal of Psychiatry. 2021.

15. Sokal L, Trudel LE, Babb J. Canadian teachers' attitudes toward change, efficacy, and burnout during the COVID-19 pandemic. International Journal of Educational Research Open. 2020;1:100016.

16. Oksanen A, Oksa R, Savela N, Mantere E, Savolainen I, Kaakinen M. COVID-19 crisis and digital stressors at work: A longitudinal study on the Finnish working population. Computers in Human Behavior. 2021;122:106853.

17. Ozamiz-Etxebarria N, Berasategi Santxo N, Idoiaga Mondragon N, Dosil Santamaрнa M. The psychological state of teachers during the COVID-19 crisis: The challenge of returning to face-to-face teaching. Frontiers in Psychology. 2021;11:3861.

18. Varma P, Junge M, Meaklim H, Jackson ML. Younger people are more vulnerable to stress, anxiety and depression during COVID-19 pandemic: A global cross-sectional survey. Progress in Neuro-Psychopharmacology and Biological Psychiatry. 2021;109:110236.

19. Ariapooran S, Ahadi B, Khezeli M. Depression, anxiety, and suicidal ideation in nurses with and without symptoms of secondary traumatic stress during the COVID-19 outbreak. Archives of Psychiatric Nursing. 2021.

20. Santamaрнa MD, Mondragon NI, Santxo NB, Ozamiz-Etxebarria N. Teacher stress, anxiety and depression at the beginning of the academic year during the COVID-19 pandemic. Global Mental Health. 2021;8.

21. Valero-Moreno S, Lacomba-Trejo L, Tamarit A, Pйrez-Maрнn M, Montoya-Castilla I. Psycho-emotional adjustment in parents of adolescents: A cross-sectional and longitudinal analysis of the impact of the COVID pandemic. Journal of Pediatric Nursing. 2021.