

PSYCHOLOGICAL DISTRESS AMONG MOTHERS OF CHILDREN WITH BEHAVIOURAL PROBLEMS DURING THE COVID-19 LOCKDOWN IN MALAYSIA

Ruziana Masiran¹, Normala Ibrahim², Hamidin Awang³ AND Lim Poh Ying⁴

¹⁻³Department of Psychiatry, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

⁴ Department of Community Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

Corresponding author: Ruziana Masiran

Email: ruziana_m@upm.edu.my

ABSTRACT

The spread of COVID-19 and its subsequent public health measures have carried a significant psychological burden on many parents worldwide. This study aimed to: (1) determine the frequency and factors associated with psychological distress experienced by mothers of children with behavioural problems, and (2) ascertain their concerns and personal views on parenting during the first lockdown period in Malaysia. The respondents (N = 55) were mothers of children aged 6-12 years with behavioural problems. The mother-child dyads were recruited through clinicians' referrals at the paediatrics and child and adolescent psychiatric clinics in Kajang, Kuala Lumpur, and Selayang Hospitals. Children with total difficulties score of ≥ 15 in the Strengths and Difficulties Questionnaire (SDQ) were considered to have behavioural problems. The respondents completed an online survey assessing sociodemographic information and psychological distress (stress, anxiety, and depression) using the Depression, Anxiety and Stress Scale - 21 Items (DASS-21). The frequency of mothers with stress, anxiety, and depression were 36.4%, 43.6%, and 30.9%, respectively. Stress was significantly associated with the household size, while depression was associated with household size and the respondents' work status during the lockdown. Despite a primary concern about contracting COVID-19, the participating mothers had positive views about their own parenting experience during the lockdown. Mothers at risk of psychological distress should be offered mental health support to prevent or reduce the symptoms and enhance their coping skills during this trying time.

Keywords: Behaviour problem; COVID-19; lockdown; Malaysia; mothers; pandemic; parenting; psychological distress

INTRODUCTION

As an initial response to the novel coronavirus disease (COVID-19) pandemic, the government of Malaysia implemented the movement control order (MCO) in stages as a *cordon sanitaire*. Although this lockdown measure successfully decelerated the spread of the pandemic virus, it has unfortunately been linked to increased mental health issues such as loneliness¹, stress, anxiety, depression²⁻³, and suicidal ideation⁴ among the population. Within households, lockdown has also brought a tremendous risk of parenting stress⁵, psychological distress among family members⁶, and divorce⁷. Furthermore, the nationwide school closure has affected children's psychosocial and academic development, as well as parental mental health. Home learning may threaten children's education due to the evident inequality of support for children between families⁸. Concurrently, parents may suffer from role conflict as they work from home during this lockdown period⁹. Despite these challenges,

parents are expected to balance work, childcare, teaching, and household chores responsibilities¹⁰.

Besides that, gender disparities in mental health problems have been acknowledged; women are more psychologically vulnerable during the pandemic¹¹⁻¹⁵, with a high prevalence in maternal anxiety and depression being reported¹⁶. Since mothers are reported to be particularly burdened^{10,17-18}, their parenting ability might be undermined by this affair, which may harm children's well-being¹⁹⁻²⁰. Additionally, pre-existing disruptive behaviours among children could further exacerbate parental burden²¹, as recent research demonstrated a rise in emotional and behavioural problems following the pandemic²¹⁻²². Also, a large household size, characterised by high levels of background stimulation and absence of predictability and structure²³, could potentially harm families²⁴, parents²⁵, and children²⁶⁻²⁷.

Despite the documented impact of the pandemic on maternal mental health²⁸, the information

about its effect on Malaysian mothers is lacking. Likewise, the psychological distress among mothers of children with behavioural problems warrants further evaluation. A quick assessment of maternal psychological status would enable more comprehensive planning of efforts to alleviate such psychosocial burden²⁹. Therefore, this study aimed to determine the frequency and factors associated with psychological distress among mothers of children with behavioural problems during the first lockdown period in Malaysia. This research also seeks to explore the concerns of these mothers and their personal views on their own parenting experience during the lockdown.

METHODS

Study design

This study adopted a descriptive cross-sectional research design.

Ethics approval

Ethical approval was granted by the Medical Research and Ethics Committee of the Ministry of Health, Malaysia [NMRR-19-107-45772 (IIR)] and the Ethics Committee for Research Involving Human Subject of Universiti Putra Malaysia (JKEUPM-2021-163). Informed consent was obtained from the respondents together with the online survey forms.

Study population

The respondents were sampled from a separate and more extensive study conducted by the first author to assess the effectiveness of a parenting programme in Hospital Pengajar Universiti Putra Malaysia (HPUPM) in Serdang, Selangor. In the parent study, 70 mothers of 6-12-year-old children who had behavioural problems for at least six months were recruited through the clinicians' referrals from the paediatrics and child and adolescent psychiatric clinics of Kajang, Kuala Lumpur, and Selayang Hospitals. The mothers with children that scored ≥ 15 of total difficulties in the Strengths and Difficulties Questionnaire (SDQ) were included in this study, based on the borderline and abnormal scores of the SDQ among Malaysian children³⁰. However, mothers of children with a debilitating physical impairment, intellectual deficit, or autism spectrum disorder were excluded. Also, mothers who partook in other parenting programmes at the time of referral, actively used drugs or alcohol, and those who had a debilitating physical impairment, intellectual deficit, or severe mental illness that could hinder participation were also excluded from the study.

Sampling and procedures

This study utilised convenience sampling by inviting mothers from the parent study to complete a questionnaire created using Google Forms sent through a link via smartphones. Only 55 out of 70 mothers responded to the questionnaire. Data were collected for four days (10th to 13th April 2020).

Instruments

Questionnaire assessing maternal psychological distress

Psychological distress is largely characterised by stress, anxiety, and depression, which can be measured using the DASS-21 final respective symptom scores. The Malay version of DASS-21 with good Cronbach's alpha values (0.84 for depression; 0.74 for anxiety; and 0.79 for stress)³¹ was used in this study. The respondents rated 4-point severity based on their experiences over the previous week. Scores for each subscale were summed and subsequently multiplied by two to obtain the final score. Based on the DASS-21 manual, scores of ≥ 10 in depression, ≥ 8 in anxiety, and ≥ 15 in stress subscales were indicative of psychological distress³².

Questionnaire assessing sociodemographic characteristics

The sociodemographic characteristics of respondents were collected using author-developed survey questions. Information on age, total household income, and household size were analysed as numerical data, while their work status and causes for concerns as categorical data. Age factor was classified into young (20-39) and middle-aged adults (40-59)³³. Household income was self-reported to the closest hundredth and then categorised according to the bottom 40% (B40), middle 40% (M40), and top 20% (T20) strata following Malaysia's Household Income and Basic Amenities Survey Report 2019³⁴. Meanwhile, the household size was categorised into 2-3, 4-5 and ≥ 6 per the classification by the United Nations' 2017 report³⁵. The occupation data were categorised based on the International Standard Classification of Occupations³⁶.

Questionnaire assessing concerns and personal views on parenting experience

In the section to assess mothers' concerns, they were asked to select a single-best answer for the question "What is your main concern during this lockdown period?" among the four options: (1) lack of income source, (2) my family members or myself infected with COVID, (3) school is closed, and studies disrupted, or (4) others. They were required to elaborate if they select option (4). Concerning their personal views on parenting

experience during the lockdown, mothers were asked to rate their opinion or attitude on a five-point Likert scale for four statements: (1) I understand my child better, (2) I am satisfied being a parent, (3) I think I am an efficient parent, and (4) I enjoy being with my child/children.

Statistical Analysis

The quantitative data was analysed using descriptive statistics to determine the frequency of mothers experiencing stress, anxiety, and depression. Stress, anxiety, and depression scores were categorised into dichotomous responses (present or absent) and severity (mild, moderate, severe, or extremely severe). Subsequently, the sociodemographic data were categorised for a statistical test of association. The stress, anxiety, and depressive symptoms and their associated factors were analysed

separately using the chi-square test. The data were analysed using the SPSS software version 25.0 with the statistically significant level set at $p < 0.05$.

RESULTS

Sample sociodemographic characteristics

A total of 55 respondents (78.6%) with age between 27 and 50 years ($M = 37.80$, $SD = 5.16$) completed the distributed questionnaire. Overall, most of the respondents were from the B40 socioeconomic group (total household income of < RM 4850 monthly) (56.4%), a housewife or pensioner (43.6%), had a household size of 4 to 5 occupants (52.7%), and were still working and had a financial source (45.5%). 60% of the respondents' spouses were not working during the lockdown. The characteristics of the study population are shown in Table 1.

Table 1. Sociodemographic characteristics of respondents (N = 55)

Variable	Parameters	Frequency (%)	Mean ± SD
Socioeconomic status	B40	31 (56.4)	
	M40	18 (32.7)	
	T20	6 (10.9)	
Occupation	Housewife/Pensioner	24 (43.6)	
	Non-professional	14 (25.5)	
	Professional	17 (30.9)	
Household size	2-3	6 (10.9)	
	4-5	29 (52.7)	
	≥ 6	20 (36.4)	
Work and financial status	Not working and has no financial source	2 (3.6)	
	Not working and receives financial aid	10 (18.2)	
	Not working and has a financial source from husband or savings	18 (32.7)	
	Still working and has a financial source	25 (45.5)	
Husband work status	Not working	33 (60.0)	
	Still working	22 (40.0)	
Age			37.80 ± 5.16

Frequency of psychological distress among respondents

The percentage of respondents experiencing stress, anxiety, and depression was 36.4%, 43.6%,

and 30.9%, respectively (Figure 1). Most respondents with stress, anxiety, and depression had moderate to severe symptoms (29.09%, 30.91%, and 16.37%, respectively).

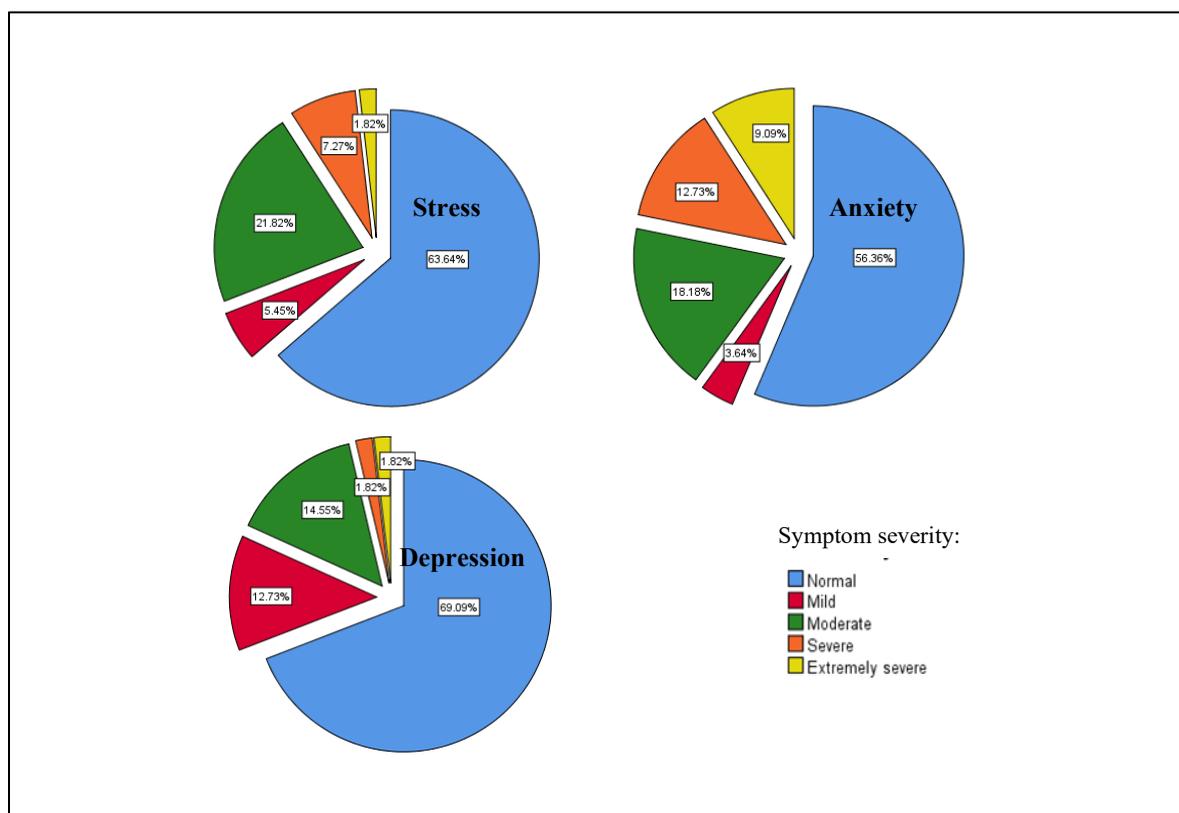


Figure 1. The severity levels of stress, anxiety, and depression of respondents during the first lockdown period in Malaysia

Factors associated with psychological distress

Table 2 shows the association between sociodemographic factors and stress, anxiety, and depression among the respondents. Anxiety was significantly associated with household size ($p = 0.046$), while depression was significantly associated with both household size ($p = 0.030$) and their work and financial status during the lockdown [$\chi^2 (3, N = 55) = 7.41, p = 0.043$]. Respondents' age, occupation, socioeconomic status, and spouse work status were not significantly associated with stress, anxiety, or depression.

Personal concerns during the lockdown period

Based on Figure 2, most of the respondents (70.9%) were concerned about the possibility of family members or themselves being

infected with COVID-19. Smaller proportion of respondents was concerned about school closure and study disruption (9.1%) and the lack of income source (7.3%). 12.7% of mothers reported having other concerns such as their children learning less, feeling bored and playing games, sitting for 'Ujian Pencapaian Sekolah Rendah' (UPSR) exam, playing aggressively, and getting sick; depleting emergency funds; unable to focus on work; difficulty acquiring food supply; and unfinished office work.

Personal views on parenting experience during the lockdown period

Most respondents agreed on the statements "I understand my child better", "I am satisfied being a parent", "I think I am an efficient parent", and "I enjoy being with my child/children" (Table 3).

Table 2. Sociodemographic factors associated with stress, anxiety, and depression among respondents (N = 55)

Variable	Stress		p-value	Anxiety		p-value	Depression		p-value
	Absent	Present		Absent	Present		Absent	Present	
Age									
20-39	25 (71.4)	13 (69.1)	0.620	23 (74.2)	15 (62.5)	0.352	27 (71.1)	11 (64.7)	0.638
40-59	10 (28.6)	7 (30.9)		8 (25.8)	9 (37.5)		11 (28.9)	6 (35.3)	
Socioeconomic status									
B40	19 (54.3)	12 (60.07)	0.919	16 (51.6)	15 (62.5)	0.729 ^a	18 (47.4)	13 (76.5)	0.084 ^a
M40	12 (34.3)	6 (30.0)		11 (35.5)	7 (29.2)		14 (36.8)	4 (23.5)	
T20	4 (11.4)	2 (10.0)		4 (12.9)	2 (8.3)		6 (15.8)	0 (0.0)	
Occupation									
Housewife/pensioner	15 (42.9)	9 (45.0)	0.759	13 (41.9)	11 (45.8)	0.785	14 (36.8)	10 (58.8)	0.255
Non-professional	10 (28.6)	4 (20.0)		9 (29.0)	5 (33.3)		10 (26.3)	4 (23.5)	
Professional	10 (28.6)	7 (35.0)		9 (29.0)	8 (33.3)		14 (36.8)	3 (17.6)	
Household size									
2-3	4 (11.4)	2 (10.0)	0.619	1 (3.2)	5 (20.8)	0.046 ^{a*}	2 (5.3)	4 (23.5)	0.030 ^{a*}
4-5	20 (57.1)	9 (45.0)		20 (64.5)	9 (37.5)		24 (63.2)	5 (29.4)	
≥ 6	11 (31.4)	9 (45.0)		10 (32.3)	10 (41.7)		12 (31.6)	8 (47.1)	
Work and financial status									
Not working and no income	2 (5.7)	0 (0.0)	0.586	2 (6.5)	0 (0.0)	0.383	0 (0.0)	2 (11.8)	0.043 [*]
Not working but gets financial aid	5 (14.3)	5 (25.0)		4 (12.9)	6 (25.0)		6 (15.8)	4 (23.5)	
Not working but still has income (spouse/saving)	11 (31.4)	7 (35.0)		9 (29.0)	9 (37.5)		11 (28.9)	7 (41.2)	
Still working	17 (48.6)	8 (40.0)		16 (51.6)	9 (37.5)		21 (55.3)	4 (23.5)	
Spouse work status									
Not working	24 (68.6)	9 (45.0)	0.098 ^a	20 (64.5)	13 (54.2)	0.580 ^a	23 (60.5)	10 (58.8)	1.00 ^a
Working	11 (31.4)	11 (55.0)		11 (35.5)	11 (45.8)		15 (39.5)	7 (41.2)	

^a Fisher's exact test

* $p < 0.05$

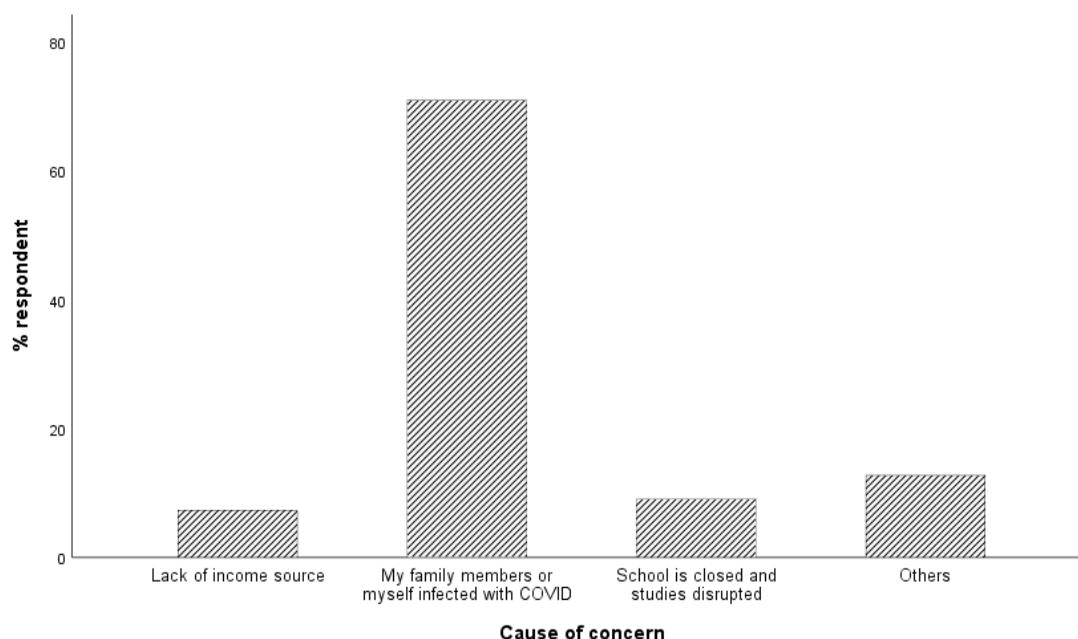


Figure 2. Causes of concern among respondents during the first lockdown period in Malaysia

Table 3. Personal views on parenting experience during the lockdown

Responses	Parenting experience (Frequency (%))			
	I understand my child better	I am satisfied being a parent	I think I am an efficient parent	I enjoy being with my child/children
Strongly agree	18 (32.7)	9 (16.4)	7 (12.7)	21 (38.2)
Agree	25 (45.5)	34 (61.8)	35 (63.6)	28 (50.9)
Neutral	11 (20.0)	8 (14.5)	11 (20.0)	5 (9.1)
Disagree	0 (0.0)	2 (3.6)	1 (1.8)	0 (0.0)
Strongly disagree	1 (1.8)	2 (3.6)	1 (1.8)	1 (1.8)

DISCUSSION

The state of nationwide lockdown during the COVID-19 pandemic has sparked panic among Malaysian parents, particularly concerning the financial and social challenges. The ensuing parental psychological distress can have direct detrimental effects on children’s emotional and psychosocial well-being³⁷⁻³⁹. Accordingly, this study was carried out to determine maternal psychological distress and their concerns and experience of parenting children aged 6-12 years old with a clinically significant level of behavioural problems during the first lockdown period in Malaysia. To the best of our knowledge, this was the first study to examine the psychological impact of the COVID-19 pandemic on mothers, specifically with the studied criteria. This study identified

moderate and severe levels of stress, anxiety, and depression among affected mothers. Additionally, the study established the association between maternal stress and household size, and between maternal depression and both household size and their working status.

The percentage of psychological distress in this study was found to be higher compared to previous studies involving adults during the same period^{13,40}. This inconsistency may be due to the specific nature of the respondents in this study, as most of them were already stressed about their children’s problems. Moreover, the mothers had not been trained on the skills to reduce inappropriate behaviours in children at that time. Thus, the high level of psychological distress among the participants was expected. However, Ping et

al. had demonstrated a much higher frequency of anxiety and depression among general Malaysian adults, especially women¹⁴. Since their study was conducted in the later lockdown phase and spanned over a longer period, the participants were subjected to changes in the public health measure including school-reopening and delayed socioeconomic effects. Hence, parents discovered that parenting was increasingly tougher throughout the pandemic than at a specific time point⁴¹. The symptom severity found in this study further demonstrated that half of the psychologically distressed mothers had moderate to severe stress, anxiety, and depression, which is in agreement with a study among adults during the lockdown in China⁴².

Apart from that, household size was found to be significantly associated with anxiety and depression, which supports crowding as a source of mental health problems⁴³⁻⁴⁵. Besides, it has been shown that crowded cities have higher infection rates than less congested cities⁴⁶. Another finding in this study was the presence of stress, anxiety, and depression in 60-76% of mothers from the B40 income group. Although these did not reach statistical significance, the role of income in causing psychological distress should not be underestimated. Literature suggested that lower income and unemployment are associated with a higher frequency of psychological distress before⁴⁷ and during the pandemic^{13,48}. In addition, uncertain employment status has been associated with depression among men and women who are head of household⁴⁹. In Malaysia, the lockdown has caused a major economic blow to many people with poor financial shape^{14,40,50-51}. A previous study revealed that mothers had significantly more depressive symptoms among welfare aid recipients than the general population⁵².

A strong sense of fear and anxiety among mothers amidst the pandemic is not unexpected⁵³. Preoccupied thoughts of COVID-19 are commonly experienced, with up to 75% of people were worried about their family members contracting COVID-19⁴². Fear related to COVID-19, known as coronaphobia, is contributed by various factors, including regular media consumption, infodemia, health anxiety, and mistrust of health authorities⁵⁴⁻⁵⁵. Despite having their parenting skills tested during the lockdown⁵⁶, many mothers who participated in this study

believed that they understood their child better, were satisfied and efficient as a parent, and enjoyed being with their children. These positive findings are encouraging since optimism is revealed to be protective against anxiety and depression², while psychological resilience impedes stress⁴⁸. Nonetheless, conclusions drawn from rated, oversimplified statements regarding the mothers' views on their parenting experience must be interpreted with caution.

Contrary to the literature, highly distressed parents often have low parenting satisfaction and efficacy⁵⁷, and their parenting self-efficacy were lower during the pandemic⁵⁸. Hence, parenting experiences should be measured comprehensively using validated questionnaires such as the Parenting Sense of Competence (PSOC)⁵⁹ and the Tool to Measure Parental Self-Efficacy (TOPSE)⁶⁰. Notably, the participants with unemployed husbands were comparatively less distressed, suggesting that spousal involvement might help to reduce parenting burden¹⁷. Furthermore, having family support¹², along with virtual communication and routine family activities^{41,56} could prevent adverse psychological consequences of the pandemic.

Limitations and strengths

The convenience sampling employed might limit the generalizability of the population undergoing the same health crisis. Nevertheless, convenience sampling allows the researchers to collect data from easily accessible participants in limited time and resources⁶¹. Apart from that, the study sample may have been biased as it was based on a parenting program recruitment. Also, the use of self-reported questionnaires in this study may cause social desirability bias. The study was also exposed to technical limitations by using an online survey because some parents may not have access or skills to use the internet. As DASS-21 is simply a screening tool, clinical interviews should be conducted to confirm stress, anxiety, or depression diagnosis. Moreover, the use of self-developed and unvalidated questionnaires may not be scientifically viable to explore the personal views of participants. Finally, the small sample size reduces the power of the study and the ability to represent the population of mothers who have children with a similar issue. Future studies should use validated instruments and employ qualitative research design to gain a

deeper understanding of mothers' parenting experiences.

Implications

This study underscores the importance of preserving maternal mental health by targeting mothers who are at the greatest risk of child- and parenting-related stress during a worldwide crisis. Findings generated from this study also highlight the need to address parenting-specific stressors during the pandemic. For example, mothers having a high number of home occupants who also lack social support could be financially aided by the national social welfare organisation and psychologically supported by mental health practitioners. These stakeholders could conveniently reach parents online, and several technologically enhanced interventions could be delivered⁶².

CONCLUSION

The COVID-19 pandemic has undoubtedly affected mothers worldwide. During the first MCO or lockdown phase in Malaysia, about 30.9 to 43.6% of mothers who had children with behavioural problems evaluated themselves as stressed, anxious, and depressed. More than half of them experienced moderate to severe symptoms of psychological distress. It was revealed that stress was significantly associated with household size, and depression was significantly associated with household size and mother's work status. Despite having pandemic-related concerns, mothers generally seem to hold positive views about their parenting experience. The findings serve as a reminder for healthcare practitioners working with parents to remain vigilant for the presence of maternal emotional distress. Mothers must be given adequate emotional and physical support throughout the pandemic period as maternal mental health has an impact on children's well-being.

ACKNOWLEDGMENT

This study is part of the first author's Ph.D. thesis in Universiti Putra Malaysia.

Competing Interests

The authors declare that they have no known competing financial or personal interests that could have appeared to influence the work reported in this paper.

Funding

This study was supported by Universiti Putra Malaysia's Inisiatif Putra Muda (IPM) Grant (GP-IPM/2018/9670700).

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