

LEVEL OF ANXIETY AMONG PARENTS WITH SPECIAL NEEDS CHILDREN DURING COVID-19 PANDEMIC

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Abstract

Anxiety disorders (AD) are usually undiagnosed and untreated among adults where the symptoms overlap with other medical conditions. In 2019, the World Health Organization (WHO) announced the world COVID-19 as a pandemic, where it affects economic as well as social disruption all over the world. This pandemic also has an impact on individual's mental health as it leads to stress, depression, and anxiety. All ranges of ages were affected due to this pandemic as well as parents with special needs children. All sectors such as schools and therapy centres were closed, and the needs of special children increased. Therefore, this study focuses on parent's anxiety level in raising up special needs children during COVID-19 pandemic. This study aimed to determine the levels of anxiety among the parents during COVID-19 pandemic in Malaysia by conducting a cross-sectional study using The Beck Anxiety Inventory for Malays (BAI-Malay) and it is conducted through online platform via google form. Participants involved were 65 parents of special needs children ages 7 to 12 years old. The level of anxiety reported by 65 parents is 40 % at minimal level of anxiety, 24.6 % at mild level, 16.9% are moderate anxiety and 18.5% are severe anxiety. There was no statistically significant difference between sociodemographic characteristics (role of parents, age of parents, marital status, and family income) with level of anxiety among them ($p > 0.05$).

Keywords: Parents, Special Needs Children, COVID-19 Pandemic, Anxiety

Introduction

In December 2019, news regarding the first human cases with onset symptoms of COVID-19 was spread globally and it was officially reported at a wholesale food market in Wuhan City in China and the disease was due to novel coronavirus (1). Then, time passed, Malaysia reported the starting of the outbreak as the first cases was detected and reported on 25th January 2020 whereby 3 Chinese people were infected, and they were in close contact with an infected person in Singapore (2). Early this year, the Centers for Disease Control and Prevention (CDC) believed that this COVID-19 makes people face several challenges in our lives that make us become more stressful, overwhelming as well as causing strong emotions both in adults and children (3).

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) also defined anxiety disorders as disorders that have features of excessive fear and anxiety that are related to behavioural disturbances (4-5) Basically,

anxiety have huge impacts on one's body, occupational performance as well as social participation. Anxiety will give effect to our body where chronic anxiety can decrease the quality of life as it has serious consequences on physical health where it affects central nervous system (CNS), cardiovascular system and immune system (6). Previous study describes about problems found within people who have been diagnosed with depression and anxiety faced when they performed daily occupations, they were rated low level of occupational performance as well as their satisfaction in performing the occupational activity also low (7). Besides, anxiety attack cause problem in social where people will be having trouble to be assertive because people with anxiety will feel hard to share and express their feelings with others (8) and they might have low self-esteem and self confidence that led to feel themselves as (9).

A child with special needs is a child who requires special attention and needs such as special attention and

necessities, medical attention, supervision as well as specific parenting skills and actions compared to typical development children (10-12). Parents with special needs children are those who raised the special needs children where parenting special needs children with learning, attention, social-emotional as well as behavioural needs were not easy (13) and parents will encounter a lot of challenges such as future uncertainty, emotional distress, social restrictions and not feeling prepared for roles as parents of special needs children (14).

Parents of special needs children have a lot of responsibilities in raising up their child such as rearing for the child's physical needs due to the disability (15), assisting the special needs child in forming and maintaining connections, and providing a place (16) for the special needs child to belong in the community (17). In taking care of special needs children without adequate assistance either from family members or others, parents may experience burnout and stress (18), that can lead them to become overwhelmed and being physically, emotionally, and mentally fatigued (19, 20).

Previous study found that parents who care for children with impairments are at an increased risk of developing psychological issues such as depression and anxiety (21). According to research, mothers of school-aged children and older children with developmental disorders have been reported to have poorer health than mothers of typical children (22). This can be caused by few associated stressors such as financial strain (23) as they required higher cost in taking care of the disabled child (24) and increased caregiver demand (21). Most of the parents of disability children are facing some psychological problems in their daily life (25) as they need to change with the new challenges and responsibilities in taking care of their special child such as adapting reactions of family members, friends, and environment towards their special kids (26, 27).

Materials and Methods

Sample collection

A cross-sectional study was conducted to 65 parents with special needs children from March to June 2022. The study design was chosen as it is easy to conduct and the most appropriate study design for studies aiming at determining the prevalence of a phenomenon, situation, problem, attitude, or any issue by taking a cross-section of the population is a cross-sectional study (28). This study was conducted in Malaysia through online platform via google form. The google form was distributed through social media such as Facebook page (Autism Malaysia), government school Facebook page (PPKI) and others.

The participants involved in this study were parents with special needs children. Purposive sampling was used as it is extremely useful to construct a historical reality, describe a phenomenon or develop something about which only little is known (28). Parents who fulfilled the following criteria; (i)

parents with special needs children range 7 to 12 years old in Malaysia; (ii) parents that have good internet access; (iii) and parents that can read and understand Malay language as this questionnaire will distribute in Malay version were included in this study. They were excluded if; (i) parents who are handicapped or having mental illness; (ii) parents with special needs children that are not staying together; (iii) and parents who have more than one special need children.

The sample size was calculated using the Raosoft Sample Size Calculator Online Software. It was decided that the margin error of the study is 5%, with the confidence level of 95% (as indicated in many studies in health sciences), with the population size of 58 and response distribution of 50%, the total number of representative samples needed for generalization is (n = 382). However, the finalized sample size was (n = 65).

Data was collected using demographic questionnaire and The Beck Anxiety Inventory for Malays (BAI-Malay).

Demographic questionnaire was required to identify the background of the participants. It consisted of role of parents, age of parents, parents' working status, family income, numbers of special needs children and diagnosis of the special needs child.

The Beck Anxiety Inventory for Malays (BAI-Malay) was developed by Firdaus & Nor Sheeren (29) to measure anxiety among adolescents and adults. BAI-Malay is a self-report assessment of anxiety that consists of 21 items. The original BAI was developed to distinguish between patients suffering from anxiety and depression based on their behavioural, emotional, and physiological symptoms (30). All those symptoms must be present over past month and participants must score on how much those symptoms have bothered them during the past month. Each item scores 0 to 3 where 0 indicate as not at all, 1 indicate as mildly (but it did not bother me much), 2 indicate as moderately (it was not pleasant at time) and 3 indicate as severely (it bothers me a lot). Total score of this assessment was calculated by a sum up score of the 21 symptoms that can range between 0 and 63 points. Based on the result, a total score of 0 - 7 is interpreted as a "Minimal" level of anxiety; 8 - 15 as "Mild"; 16 - 25 as "Moderate", and 26 - 63 as "Severe"(31). The Cronbach's alpha values of BAI-Malay was 0.91 where the specifically reliability for factor 1 (subjective anxiety) was 0.89, factor (autonomic) was 0.75 and factor 3 neurophysiology) was 0.66 (29). The Pearson correlation coefficient result shown that there is significantly positive relationship between the BAI-Malay total scores with the Fear Questionnaire (r = 0.32), Catastrophic Cognition Questionnaire (r = 0.23), Depression Anxiety Stress Scale-21 (r = 0.68) and Anxiety Sensitivity Index (r = 0.56) (29).

Data analysis

Statistical Package for Social Science (SPSS) version 20.0 software was used to analyze all the data collected. The demographic characteristics of the participants were

calculated using the descriptive statistic. Normality testing was done using the Kolmogorov Smirnov test and the assumptions of normal distribution were violated. The significance difference between sociodemographic characteristics (role of parents, age of parents, marital status, and family income) and level of anxiety among parents with special needs children during COVID-19 pandemic was analyzed using Mann-Whitney U and Kruskal Wallis test.

Results

Description of participants

A total of 65 (n = 65) parents who have special needs children aged range 7 to 12 years old have participated in this study. Table 1 shows the descriptive statistic of the participants' demographic data. The demographic data were divided into 2 parts which are the first one is the data of the parents, and the second part is the data of the child. Based on Parents who had participated in this study with (n = 51, 78.5%) are mothers and (n = 14, 21.5%) are fathers. The age of parents was classified into 4 categories which are the majority participated among age 34-43 years old (n = 33, 50.8%) while the minority are among age 54-63 years old (n = 5, 7.7%). The marital status of the parents showed (n = 59, 90.8%) are married and (n = 6, 9.2%) are divorce (single parent). The parents' employment status showed that (n = 31, 47.7%) both working, (n = 33, 50.8%) either one working and (n = 1, 1.5%) both not working. Moreover, family income was divided into 4 categories where the majority are in group of RM 0- RM 2500 (n = 28, 43.1%) and the minority are among category of RM 10971 and others (n = 3, 4.6%).

Table 1: Demographic information of the respondents (n = 65)

Demographic information	Frequency (n)	Percentage (%)
Parents' section		
Role		
Mother	51	78.5
Father	14	21.5
Age		
24-33	14	21.5
34-43	33	50.8
44-53	13	20.0
54-63	5	7.7
Marital status		
Married	59	90.8
Divorce (single parent)	6	9.2
Working status		
Both employed	31	47.7

Table 1: Demographic information of the respondents (n = 65) (continued)

Demographic information	Frequency (n)	Percentage (%)
Father OR mother employed	33	50.8
Both Unemployed	1	1.5
Family income		
RM 0 – RM 2500	28	43.1
RM 2501 – RM 4850	14	21.5
RM 4851 – RM 10970	20	30.8
RM 10971 and more	3	4.6
Child's section		
Number of children		
1 child	56	86.2
2 children	8	12.3
3 or more children	1	1.5
Diagnosis of children		
ADHD	6	9.2
Autism	22	33.8
Autism with ADHD	5	7.7
Cerebral Palsy	5	7.7
Down Syndrome	1	1.5
Dyslexia	8	12.3
Global Developmental Delay	1	3.1
Hearing Impairment	1	3.1
Hydrocephalus	1	1.5
Low Vision	1	1.5
Others	1	1.5
Physical Impairment	2	3.1
Slow Learner	1	1.5
Specific Learning Disorder	3	4.6
Speech Delay	4	6.2
William Syndrome	1	1.5

The number of special needs children divided into 3 including 1 child (n = 56, 86.2%), 2 child (n = 8, 12.3%) and 3 or more child (n = 1, 1.5%). Moreover, the child's diagnosis is also recorded and it showed that the highest are autism (n = 22, 33.8%) and the lowest including down syndrome, hydrocephalus, low vision, slow learner, William syndrome and other with (n = 1, 1.5%).

Level of anxiety among parents with special needs children during covid-19 pandemic

Table 2 shows most of the parents are at minimal level of anxiety with (n = 26, 40.0%) in raising up special needs children during COVID-19 pandemic. Meanwhile, the minority of the respondents are at moderate level of

anxiety with (n = 11, 18.5%). However, the respondents that are at level of mild and severe also must be considered as well.

Table 2: Level of anxiety among the respondents (n = 65)

Level of Anxiety	Frequency (n)	Percentage (%)
Minimal (0-7)	26	40.0
Mild (8-15)	16	24.6
Moderate (16-25)	11	16.9
Severe (26-63)	12	18.5

Significant difference between role of parents and level of anxiety

Mann-Whitney U Test used to identify the significant difference between role of parents and level of anxiety among parents with special needs children in Malaysia during the current outbreak of COVID-19 pandemic. The results showed that there is no significant difference between role of parents with anxiety level during the current outbreak of COVID-19 pandemic (p > 0.05). Table 3 showed the result of significant difference between role of parent and level of anxiety.

Table 3: Significant difference between the role of parent and level of anxiety

Variables	Mother (n = 51) Mean Rank	Father (n = 14) Mean Rank	U	Z-score	P-value
Role of parents	33.24	32.14	345.00	0-.192	0.848

*Population mean (U)

Significant difference between age of parents and level of anxiety

Kruskal-Wallis Test was used to identify the significant difference between age of parent and level of anxiety. Table 4 shows that there is no significant difference between age of parents and level of anxiety among parents with special needs children during COVID-19 pandemic (p > 0.05).

Table 4: Significant difference between age of parents and level of anxiety

Variables	Mean Rank	(χ ²)	df	p-value
Age of parents				
24-33 years old	31.79	0.405	3	0.939
34-43 years old	34.02			
44-53 years old	33.35			
54-63 years old	28.80			

*Chi-Square (χ²) *degrees of freedom (df)

Significant difference between marital status and level of anxiety

Mann-Whitney U Test used to identify the significant difference between marital status and level of anxiety among parents with special needs children in Malaysia during the current outbreak of COVID-19 pandemic. The results showed that there is no significant difference between marital status with anxiety level during the current outbreak of COVID-19 pandemic (p > 0.05). Table 5 showed the result of significant difference between marital status and level of anxiety.

Table 5: Significant difference between the role of parent and level of anxiety

Marital status	Married (n = 59) Mean Rank	Divorce (n = 6) Mean Rank	U	Z-score	P-value
	33.24	32.14	159.00	-0.397	0.691

*Population mean (U)

Significant difference between family income and level of anxiety

Kruskal-Wallis Test was used to identify the significant difference between family income and level of anxiety. Table 6 showed that there is no significant difference between family income and level of anxiety among parents with special needs children during COVID-19 pandemic (p > 0.05).

Table 6: Significant difference between family income and level of anxiety

Variables	Mean Rank	(χ^2)	df	p-value
Family income				
RM 0 – RM 2500	29.11	4.817	3	0.186
RM 2501 – RM 4850	29.39			
RM 4851 – RM 10970	40.10			
RM 10971 and more	38.83			

*Population mean (*U*)

Discussion

The study result indicates that, majority of the parents of special needs children are at minimal level of anxiety (0-7). According to the study by Su et al. (32), when compared to retrospective pre-COVID-19 levels, parental anxiety levels and other issues increased after the first wave. Parents that must juggle their personal lives, careers, and raising children while being left alone without any supports find that dealing with quarantine and COVID-19 to be a very stressful situation (33). The data collection for this study was done during the transition from pandemic to endemic. During that phase, there is no more movement control order (MCO) and school slowly start to open back. So, the child able to socialize again with their peers and there is no need for the child to stay at home 24 hours. The parents also able to attend work and see their friends and family. From that, they can get moral support from the friends and family. Therefore, it helps them in managing their anxiety in raising up their special needs children.

In this study, it found that there was no significant relationship between demographic data which included role of parents, age of parents, marital status, and family income with the level of anxiety among parents with special needs children during the COVID-19 pandemic. This result supported with study by Kolemen et al. (34) stated that there were no statistically significant differences in the rest of the parameters (parental status, age, occupation, educational status, income level, marital status, and psychiatric pharmacological treatment) with level of anxiety among parents of a child suspected with rare disease.

Moreover, according to Adwas et al. (35), previous studies showed that single mothers have considerably higher depression and anxiety symptoms compared to mothers of two-parent families. Based on the same article, it stated that according to the results of the current study, staying in a stable but unhappy relationship has no worse effects than changing family status (35). In this study, the significance difference between marital status with level of anxiety cannot be identified due to small sample size. In study by Hannighofer et al. (36), parents' states of anxiety were significantly different depending on family monthly income.

According to a Mumbai Institute survey, approximately 70% of fathers reduced their travel time prior to the COVID era to spend a minimum of two hours a day with their families, which reduced a lot of stress and anxiety on the mothers to play different roles at home and at work and will broke gender stereotypes at many levels (37).

Other than that, anxiety disorders can happen at any stage of life, but they usually begin by middle age (6) and most of anxiety disorders appear in childhood and early adulthood. As a result, if an anxiety disorder develops later in life, it is most likely caused by a medical condition (38). Finally, marriage was associated with reduced risk of the first onset of most mental disorders in both men and women (39).

Conclusion

The study shows the level of anxiety among parents with special needs children during COVID-19 pandemic and its significant difference with sociodemographic characteristic (role of parents, age of parent, marital status, and family income). In summary, some parents of special needs children had experience anxiety during the COVID-19 pandemic. This study discovers that most of the parents of special needs children are at minimal level of anxiety while the minority are at moderate level of anxiety. Study found that there is no significant difference between sociodemographic characteristic (role of parent, age of parent, marital status, and family income) with the level of anxiety among parents with special needs children during COVID-19 pandemic.

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Competing interests

The authors of this publication would like to declare there is no conflict of interests for the publication of this research.

Ethical clearance

This study has no financial support, all participants are required to fill out a consent form in writing and agree to participate in this study. This study has been granted an ethical approval prior to conduct this study from the University Ethical Committee, Faculty of Health Sciences of Universiti Teknologi MARA(UiTM) [Reference Number: FERC/FSK/MR/2021/0049]

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