

Effects of COVID-19 pandemic on parents of children with special needs' stress in Chiang Mai, Thailand

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ABSTRACT

Background: The coronavirus disease 2019 (COVID-19) is spreading over the world. Thailand is another country that has suffered greatly as a result of the pandemic. Recognizing the stress levels of parents of children with special needs will lead to appropriate support.

Objectives: The purpose of this study was to examine the stress levels of parents of children with special needs in Chiang Mai province during COVID-19.

Materials and methods: An exploratory study was conducted from August 2020 to March 2021. The study subjects comprised parents of 162 students with visual, auditory, intellectual, and physical dysfunctions. The Suanprung Stress Test (SPST-20) and a questionnaire were used to collect data. The data was analyzed using descriptive statistics.

Results: The results indicated that most parents of children with special needs had moderate to high stress levels, at 38.89% and 25.93%, respectively. Parents of children with hearing and visual impairments had the greatest severe stress levels of any group of parents, at 21.43% and 36.37%, respectively. Most parents (60.49%) perceived that their stress had changed from their everyday circumstances; however, 58.65 percent agreed that their stress in this situation did not affect their caring for their children.

Conclusion: Parents of children with hearing and visual impairments experienced the greatest severe stress levels due to the pandemic. Psychotherapy and counseling that focus on mental health should be considered.

Introduction

The coronavirus disease 2019, also known as COVID-19, was named by the World Health Organization as a virus discovered in 1965.¹ The epidemic of COVID-19 started in Wuhan, Hubei Province, China. COVID-19 is spreading

over the world. The WHO said that after the virus spread all over the world, it was a worldwide emergency.² Thailand is another country that has suffered greatly as a result of the pandemic. In July 2022, the WHO reported about 4,550,924 confirmed cases of COVID-19 and 30,907 deaths in Thailand.³

A sudden change in the situation affects mental health problems, particularly for parents.⁴⁻⁶ Studies found that parents of children with special needs are more stressed than parents of typically developing children.⁷⁻⁹ Furthermore, parents of children with special needs and children who

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show unusual patterns of development due to a disability or a persistent medical condition have been found to have high levels of psychological stress.¹⁰⁻¹² Recognizing the stress levels of parents of children with special needs will lead to appropriate support.

Families with children with special needs face greater difficulties. This is due to the fact that these children not only face a higher risk of getting sick but also an interruption of critically needed therapeutic services, exclusion from school, and other forms of prejudice.¹³ Furthermore, since these children require one-on-one assistance, parents must be extremely cautious regarding the health of the individual who works directly with their children. This can be both emotionally and physically draining. Also, the children needed more attention and supervision from their parents than usual.¹⁴

High levels of parental stress may have a negative impact on the functioning of a child with developmental disabilities.¹⁵⁻¹⁶ Parental distress harmed caregivers' capacity to supervise their children at home and implement appropriate actions.⁴ The psychological well-being of parents is regarded as especially significant. Therefore, the child with developmental disabilities is not the only one who has an impact on their lives and the dynamics of the family. The family has an impact on the child's development, both positively and negatively. Professionals must be aware of and cope with parental stress. Therefore, the purpose of this study was to examine the stress levels of parents of children with special needs in Chiang Mai Province during COVID-19.

Materials and methods

The current study was an exploratory study on the parents' stress among parents of four types of special-needs students, including those with visual impairments, hearing impairments, intellectual disabilities, and physical disabilities, in Chiang Mai, Thailand. These students attended a disability-specific school under the Office of Special Education Administration, including the Northern School for the Blind, Anusarn Soonthorn School, Kawila Anukul School, and Srisangwan School. All of the population enrolled from August 2020 to March 2021.

Participants

Purposive sampling was performed. The participants included 162 parents from one province, Chiang Mai, in Thailand. The inclusion criteria were: 1) parents who have children studying in the academic year 2020; and 2) parents must be able to read and write and have a good understanding of the Thai language. See Table 1 for detailed information about the parents' demographics as well as their children with special needs.

Measures

The research tools consisted of two parts to collect data. The general information was used for collecting children's and parents' demographic information. The Suanprung Stress Test (SPST-20) was used to collect parents' stress.¹⁷ It consisted of 20 items in a Likert scale format of

1 to 5: 1 = no stress, 2 = mild stress, 3 = moderate stress, 4 = high stress, and 5 = severe stress. The categories of stress levels were 0-23 = mild stress, 24-41 = moderate stress, 42-61 = high stress, and 62 = severe stress. The items were divided into physical, psychological, and financial stress responses. It is a valid and reliable instrument for measuring stress levels (IOC = 0.78; Cronbach's alpha = 0.94).¹⁸

Procedure

This study was endorsed by the Human Research Ethics Committee, Faculty of Associated Medical Sciences, Chiang Mai University, by certifying the research project Document No. 431/2020. The researcher distributed questionnaires to parents who agreed to participate in the research by bringing the questionnaire to the school administration. When parents were interested in participating in research, they signed their names on the consent form, filled out the questionnaire, and returned it to the administrative office or the class teachers. The time spent collecting data was one month. The data were analyzed with descriptive statistics.

Results

Table 1 illustrates the demographic data of the parents and children. The majority of the parents, 68.52%, were female, with an average age of 43 years and 5 months. 67.28% had married status, and 30.24% had a high school education. Of 77.78%, there were single families, 91.98% had one child with disabilities, and 39.51% had an average family income per month of 5,000-10,000 Baht. For children, 51.23% were male and 48.77% were female, with an average age of 12 years and 7 months. Most of the children, 64.81%, can support themselves in all daily activities.

In addition, the overall stress levels of parents of children with special needs during COVID-19 were moderate (38.89%). When classified by type of child with special needs, parents of children with visual impairment, hearing impairment, and intellectual disabilities had the highest stress levels at the moderate level: 40.00, 42.86, and 41.46%, respectively. However, parents of children with physical disabilities had higher stress levels than others at the high level, at 44.74%, as shown in Table 2.

Table 1 Demographic data of parents and children (N=162).

	N (Percentage)
Gender	
Male	51 (31.48)
Female	111 (68.52%)
Age	
20-30	13 (8.02%)
31-40	50 (30.86%)
41-50	61 (37.65%)
51-60	29 (17.90%)
61-70 and above	9 (5.56%)
Education level	
Below high school	71 (43.83%)
High school or diploma	54 (33.33%)
Bachelor's degree	33 (20.37%)
Above undergraduate	4 (2.47%)
Marital status	
Single	17 (10.50%)
Marriage	109 (67.28%)
Widow/divorce	36 (22.22%)
Occupation	
Unemployed	8 (4.94%)
Housewife/husband	17 (10.49%)
Civil servant/ state enterprise employee/ private company employees	106 (65.43%)
Self-employed/ agriculture/ other	31 (19.14%)
Family role	
Mother/father	140 (86.41%)
Other (e.g., cousin, caregiver and adoptive parent)	22 (13.59%)
Family characteristic	
Nuclear family	126 (77.78%)
Extended family	34 (20.99%)
Foundation	2 (1.23%)
Family monthly income (Baht)	
Lower than 5,000	29 (17.91%)
5,000-10,000	64 (39.51%)
15,000-20,000	38 (23.45%)
More than 20,000	31 (19.13%)
Number of children with disabilities	
1	149 (91.98%)
2	12 (7.40%)
More than 2	1 (0.62%)
Child's disability type	
Intellectual disability	41 (25.31%)
Visual impairment	55 (33.96%)
Hearing impairment	28 (17.28%)

Table 1 Demographic data of parents and children (N=162). (continued)

	N (Percentage)
Physical impairment	38 (23.46%)
Age of Children	
5-10	51 (31.49%)
11-15	65 (40.12%)
16-20	44 (27.16%)
21-25	2 (1.23%)
Activities of daily living (self-help)	
No needs assistance and constant supervision for ADL task	105 (64.81%)
Constant supervision still needed for ADL's	18 (11.11%)
Still needs assistance and constant supervision for ADL task	30 (18.52%)
24-hour supervision and care	9 (5.56%)
Changes in parents' activity patterns	
Yes	98 (60.49%)
No	64 (39.51%)
Stress during the situation affects the children in their care	
Yes	67 (41.35%)
No	95 (58.65%)

Table 2 Frequency, percentage, and parental stress level interpretation. Classified by the type of disabilities of children with special needs.

Interpretation of stress levels of parents	Number of children with special needs (%)				
	Visual impairment	Hearing impairment	Intellectual disabilities	Physical disabilities	Total
Mild	8 (14.54)	3 (10.71)	6 (14.63)	5 (13.16)	22 (13.58)
Moderate	22 (40.00)	12 (42.86)	17 (41.46)	12 (31.58)	63 (38.89)
High	5 (9.09)	7 (25.00)	13 (31.71)	17 (44.74)	42 (25.93)
Severe	20 (36.37)	6 (21.43)	5 (12.20)	4 (10.52)	35 (21.60)

Discussion

The purpose of this study was to examine the stress levels of parents of children with special needs in Chiang Mai Province during COVID-19. The results indicated that most parents of children with special needs had moderate to high stress levels, at 38.89% and 25.93%, respectively, as shown in Table 2, which is consistent with the Department of Mental Health survey.¹⁰ It also found that 60.49% of parents had changes in their activity patterns during COVID-19, which could be attributed to the fact that this leads to stress and mental illness and causes a person to adjust suddenly, which is consistent with Fofana *et al.*¹⁹ Therefore, stress among parents of special-needs children during the COVID-19 outbreak necessitates increased

attention from mental health practitioners, such as psychotherapy and counseling, to cope with difficulties.^{20,21}

Interestingly, when compared to parents with intellectual disabilities and physical disabilities, parents of children with hearing and visual impairments had the greatest severe stress levels of any group, at 21.43% and 36.37%, respectively, which is higher than parents with other types of disabilities. Communication problems could arise for those who have a hearing impairment. Wearing a face mask restricts facial expressions and lip movements, as well as the high-frequency content of sound, which is necessary for speech intelligibility.²²

The study by Tuz, Aslan, and Yucel found that there were behavioral changes in children with hearing impairment

before and during the pandemic, and parents showed high levels of anxiety.²³ One study found that parents might have anxiety associated with their child's visual condition. The anxiety levels of parents of children with visual impairments were higher than those of normal children.²⁴ However, it should be noted that our results did not investigate the relationship between the severity of hearing and visual impairments and their impact on parents' stress.

Our results found that the majority of parents (60.49%) reported that COVID-19 did not cause any changes in their activity patterns. Also, the majority of parents (58.65%) reported that stress during the situation did not affect the children in their care. It might be that most of them (65.43%) have job stability; they work as civil servants, state enterprise employees, or private company employees. Hobfoll's theory of the conservation of resources (COR) says that people see work insecurity as the possibility of losing an important resource, which they think would hurt their well-being.^{25,26} Therefore, our study assumes that having job stability affects stress, which is one of the aspects that leads to quality of life. Alongside job stability reasons, it might be that the vast majority, 64.81%, were able to support themselves in doing all their daily activities. The study by Wanicharoen found that self-help in daily life was related to the quality of life of caregivers of children with language impairment, including specific language impairment, global developmental delay, autism, intellectual disability, and down syndrome.²⁷

It should be mentioned, however, that this research was conducted from August 2020 to March 2021, during the second pandemic phase. In fact, COVID-19 constitutes a challenging period for children and parents. Parents may make some changes to the situation. Similarly, the survey indicated that 90% or more individuals have less panic and can adjust better to the COVID-19 epidemic scenario compared to the first round of the epidemic, according to the Department of Mental Health.²⁸

There were several limitations that should be considered. Firstly, it was an exploratory study at the time of specific events during the critical period of the epidemic and was limited to a specific province, which might not represent all Thai parents of special needs children or might not be generalizable to other provinces. There was also no other study on the effects of the COVID-19 pandemic on the stress of parents of children with special needs in other provinces. Future studies will collect and represent data from larger and more diverse populations. Second, this study did not identify any personal or contextual characteristics that may influence the stress of parents of children with special needs. This factor can allow healthcare professionals to identify families that are at risk of adjustment problems at an early stage.

Conclusion

The current study examined the stress levels of parents of children with special needs in Chiang Mai province during COVID-19. Most parents of children with special needs had

moderate to high stress levels. Parents of children with hearing and visual impairments experienced the greatest severe stress levels due to the pandemic. For parents of children with disabilities, approaches such as psychotherapy and counseling that focus on mental health should be considered.

Conflict of interest

The authors declare no conflict of interest regarding the publication of this paper.

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