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STRESS, DEPRESSION AND ANXIETY LEVELS AMONG PARENTS OF "LEARNING FROM HOME" DURING COVID-19 PANDEMIC

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Abstract:

One of the consequences of the Covid-19 pandemic is the adaptation process and changes in the education process. During the Covid-19 crisis, the Indonesian Ministry of Education and Culture implemented a policy to aid in preventing Covid-19 spread through regulations governing the implementation of "Learning from Home" education. The implementation of this program which has been going on for quite a long time can create additional life burdens that produce a psychological impact on parents such as stress, anxiety, and depression. The purpose of this study is to determine the prevalence of stress, depression, and anxiety in parents of children who are "Learning from Home" as a response of the Covid-19 epidemic. An online survey was conducted from August 2020 until September 2020 among parents who have a minimum of one child with the age of children or adolescents. The Google Form was used to create a structured self-reported e-questionnaire, and the link was shared through WhatsApp. Respondents completed a survey measuring socio-demographic variables and the DASS-42 (Depression, Anxiety, Stress Scale) to measure stress, depression, and anxiety, after giving informed consent. Researchers received 225 online responses. Microsoft Excel and SPSS 21 were used to perform a univariate analysis on the data collection. Stress, depression, and anxiety were found to be prevalent among parents of "Learning from Home" children in 43.56%, 13.78%, and 18.22%, respectively. This research showed that during the Covid-19 pandemic, a significant number of parents of "Learning from Home" children encountered stress, anxiety, and depression symptoms

Keywords: Stress-depression-anxiety; Learning from home; Parents; Covid-19

Introduction

Corona virus disease 2019 (COVID-19) is a disease caused by the new coronavirus SARS-CoV-2. WHO initially became aware of this novel virus on December 31, 2019, following a report of a cluster of cases of 'viral pneumonia' in Wuhan, People's Republic of China. Following the detection of the first clusters of Covid-19-infected patients in China on January 30, 2020, WHO declared a public health emergency of International Concern [1].

The epidemic of COVID-19 has made a huge impact on education systems worldwide, affecting nearly 1.6 billion children in 190 countries and continents. Closures of schools and other learning spaces have impacted 94% of the world's student population, reaching 99% in low- and lower-middle-income countries such as Indonesia [2].

COVID-19 has forced the closure of schools worldwide. Over 1.2 billion children globally are out of school. As a result, education has experienced substantial changes, including the rise of e-learning, which allows for remote instruction via digital platforms. According to study, online education improves information retention and saves time, signaling that the coronavirus's changes are here to stay [3].

Covid-19 is currently making its way into the school environment as a pandemic. This is being done to prevent the spread of the Covid-19 virus. It is intended that all educational institutions will suspend normal operations, so restricting the spread of Covid-19. Numerous countries that have been exposed to this disease have enacted lockdown or quarantine laws to prevent the interaction of large numbers of people who could facilitate the spread of the Covid-19 [4].

As a result of the Covid-19 pandemic that happened in Indonesia, it had a detrimental effect on people's life, particularly on the education system in the country. Changes or alterations must be made by the government, through the Indonesian Ministry of Education and Culture. Adopting a "Learning from Home" policy is one of the initiatives applied. This policy was announced with the issuance of circular letter No. 15 of 2020 regarding guidelines for implementing home-based learning during the emergency period of the spread of COVID-19 in order to reinforce the Minister of Education and Culture's Circular Letter No. 4 of 2020 regarding Education Implementation in the Emergency Period of Coronavirus Disease (Covid-19) [5].

This policy is regarded appropriate to aid in the prevention of Covid-19 distribution in the educational setting. The deployment of long-standing learning from home programs will undoubtedly have a psychological effect on both children and parents. Parents were abruptly obliged to manage their children at home from school 24 hours a day while also being required to begin smart-working from home while sticking to their children's school duties. Numerous parents also faced difficulties and discomfort as a result of sick or deceased family members, income reductions, or, in some cases, job loss [6]. The educational role of parents has become considerably more significant in the home setting than it was earlier. For toddlers and preschoolers, their parents are the only ones who can aid them with assignments and support healthy development and new learning chances [7].

According to one study, parents of children who struggled with distance learning reported an increase in symptoms of mental illness. Regardless of educational attainment

or demographic variables, these inequities persist. Parents of children who struggled with distance learning described anxiety symptoms that were 0.45 standard deviations greater than those reported by parents of children who did not struggle. Depression has a comparable effect—it is about 0.45 standard deviations greater [8].

The majority of study conducted during previous pandemics and from the outbreak's inception has concentrated on the psychological consequences on the general population, leaving the effect on parents relatively unexplored [9]. Apart from the epidemic-related stress, the parent-child relationship has an effect on parents' mental health during this difficult period, and parents' mental health has an effect on their children's mental and physical health, creating a vicious circle [10]. As a result, it is critical to monitor the mental health of students' parents throughout the Covid-19 pandemic. In brief, this study seeks to ascertain the incidence of stress, depression, and anxiety among parents of children who are "Learning from Home" as a result of the Covid-19 outbreak.

Research Method

Design, Participants, and Procedure

From October 1st to October 31st, 2020, six months after the first Covid-19 positive case was detected in Indonesia; researchers conducted an observational descriptive study using an online survey. The intended participants were student's parents enrolled in various locations across Indonesia. Participants had to meet the following requirements: 1) Parents of students must be at least 18 years old; 2) Parents must have at least one child enrolled in distant education; and 3) they must be willing to join as participants. The following was the criterion for exclusion: 1) The data entered was deemed invalid. We determined a minimal sample size of 148 participants using Lemeshow's calculation, based on the prevalence of anxiety (10.8 %) revealed in an online survey of student's parents in a Chinese provinces [11]. Sociodemographic data, as well as information about stress, depression, and anxiety symptoms, were collected using an easy-to-understand questionnaire. All of the participants received the e-questionnaire, which was created using Google Forms.

The e-questionnaire is divided into three sections: section 1, which includes an explanation of the study's background and purpose as well as an informed consent form; section 2, which assesses participants' sociodemographic information; and section 3, which assesses stress, depression, and anxiety symptoms using The DASS-42 (Depression, Anxiety, and Stress Scale).

Sociodemographic information about the characteristics of participants was collected including age, sex, occupation, number of children, number of children "learning form home", children's level of education. The DASS-42 is a self-report scale with 42 items that can be used to assess depression, anxiety, and stress. The DASS is most useful in a therapeutic setting for evaluating the etiology of emotional distress as part of a larger clinical assessment process. The primary goal of the DASS is to assess the severity of depression, anxiety, and stress symptoms. Each subscale contains 14 elements. The DASS test has four alternatives arranged on a likert scale, with subjects being asked to rate how much they have faced each of the conditions stated in the previous week. The responses were graded on a four-point scale ranging from 0 (did not apply to me at all) to 3 (commonly used to me). In the Indonesian version of DASS 42, Cronbach's alphas have been determined to be 0.9483 [12]. The results of each subscale's evaluations are

added together and categorized using the scoring table 1.

Table 1. DASS scoring

	Normal	Mild	Moderate	Severe	Extremely Severe
Depression	0-9	10-13	14-20	21-27	28+
Anxiety	0-7	8-9	10-14	15-19	20+
Stress	0-14	15-18	19-25	26-33	34+

The parents' information was acquired utilizing the snowball sampling technique. The electronic questionnaire included an informed consent form, and the respondent could participate in the study after signing it. Participants were encouraged to spread the e-questionnaire with their friends and family members via personal communication media accounts such as Whatsapp. The information was gathered anonymously, with each respondent having only one response option. This was a completely non-commercial and voluntary survey. The survey was completed by 225 people in total.

Microsoft Excel and SPSS 21 were used to analyze the data. The sociodemographic data was summarized using descriptive statistics such as frequency and percentages while the prevalence rates of stress, depression, and anxiety were expressed as proportions and percentages.

The ethics committee of the university granted approval for this study. Every eligible participant signed an online written informed consent form.

Results

Table 2 summarizes the features of the parents. There were 42 males (18.66%) and 183 females (81.34%) among the 225 people studied, with the majority of them being between the ages of 31-40 years old (57.77%). 71 people (31.55%) were housewives, 23 people (10.22%) were civil servants, 74 people (32.88 %) were private employees, 28 people (12.44%) were teachers/lecturers, 11 people (4.88%) were healthcare workers, and 18 people (8%) were other (military, driver, etc.). The majority of parents had only two children as many as 109 people (48.44%), followed by having more than two children as many as 79 people (35.11 %). The majority of participants, as many as 139 people, have more than one child who has had to learn at home (57.73%). The majority of the parents in this survey had children in kindergarten and junior high school.

According to the results of the stress screening, the majority of people were at normal stress levels, with mild and moderate stress accounting for 41.83 % of those who reported stress symptoms. It was followed by severe stress, which amounted for 9.18 %, and then very severe stress, which accounted for nearly 7.14 %.

The majority of the parents had typical normal levels of depression as well. Depression affects all parents to varied degrees. Mild depression was the most common type of depression among parents (48.38 %), followed by moderate depression (38.7%), severe depression (9.67%), and very severe depression (3.22%).

Most of the participants had normal anxiety levels. Moderate anxiety symptoms were experienced by 46.34%, mild anxiety symptoms by 43.9%, and severe anxiety symptoms by 9.75%. There were no subjects with very severe of anxiousness. Table 3 provided detailed information on the

proportion of people who experienced each level of stress, depression, and anxiety.

Table 4 shows the proportion of stress, depression, and anxiety based on socio-demographic variables. Table 4 shows that stress, anxiety, and depression are most common among people between the ages of 31-40 years old, with female sex and housewives as the primary occupation. The majority of parents with two children, having multiple children who learn at home, and the majority of the children's education level was elementary school, were found to have this problem.

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Table 2. Characteristic of students' parents

Variables	Frequency	Percent
Age		
>17-30	15	6.66
31-40	130	57.77
41-50	70	31.11
>50	10	4.44
Sex		
Male	42	18.66
Female	183	81.34
Occupation		
Housewive	71	31.55
Civil servant	23	10.22
Private employees	74	32.88
Teacher/lecturer	28	12.44
Healthcare workers	11	4.88
Others	18	8
Number of Children		
1	37	16.44
2	109	48.44
>2	79	35.11
Number of Children (Learning from home)		
1	86	38.22
>1	139	57.73
Children level of education		
Early childhood education	25	11.11
Kindergarten	169	75.11
Primary school	83	36.88
Junior high school	45	20

Table 3. Proportion of Stress, Depression, and Anxiety

	Normal	Mild	Moderate	Severe	Very Severe
Stress	127	41	41	9	7
Depression	194	15	12	3	1
Anxiety	184	18	19	4	0

Table 4. Distribution of Stress, Depression, and Anxiety

Variables	Depression	Anxiety	Stress
Age			
>17-30	3	2	8
31-40	20	29	66
41-50	7	9	20
>50	1	1	4
Sex			
Male	5	5	13
Female	26	36	85
Occupation			
Housewives	12	16	36
Civil servant	0	1	8
Private employees	10	11	27
Teacher/lecturer	4	7	11
Healthcare workers	0	0	4
Others	9	6	6
Number of Children			
1	5	5	16
2	15	20	48
>2	11	16	24
Number of Children (Learning from home)			
1	8	10	31
>1	23	31	67
Children level of education			
Early childhood education	3	7	11
Kindergarten	8	10	21
Primary school	26	33	79
Junior high school	10	13	34

Discussion

Stress, depression, and anxiety detection rates among students' parents were 43.55%, 13.77%, and 18.22%, respectively, in the current study, which was greater than the similar study. A study in China that investigated the incidence of anxiety in the presence of online homeschooling activities during endemic covid-19 in children using Self-rating Anxiety Scale (SAS), Of 2010 parents found prevalence in the lower and intermediate grades than in the upper grades were 10.8%, 8.9%, and 6.3%, respectively [11]. This finding could be due to the fact that the study being conducted in the middle of the Covid-19 pandemic. As a result, it's

reasonable to assume that students' parent stress, depression, and anxiety symptoms were higher in the middle of the pandemic.

In this study, the incidence of stress, depression and anxiety often occurs in productive women aged between 31-40 years and works as a housewives. This aligns to the findings of an Indian survey on more hundreds households which found that women reported being more anxious, depressed, and sleep deprived than males during the Covid-19 epidemic. In the publication it was reported that women's mental stress was very high driven by financial and health problems and They expressed greater concern for their families' physical health when compared to men [13]. Parents, especially mothers, interact more frequently with their fussy children who are bored at home and desire an educational environment at school. Mothers become exhausted, bored, and impatient when they contemplate the job they must do in addition to supervising and engaging in activities with their children [14]. Parents' psychological difficulties may be aggravated when they are unable to access online education for a variety of reasons, including a lack of connectivity, resources, and awareness of how to take online programs. Moreover, there are a variety of issues that prevent parents from focusing on guiding their children's learning. This is a problem for parents who have a lot of schoolwork and have difficulty organizing their time effectively. Another barrier is a decline in children's willingness to learn, as they struggle to focus on assignments due to distractions from television, electronics, and games, as well as external factors such as uneven study time and boredom with daily activities [15,16].

Parents with multiple children and children in primary school are more prone to anxiety, depression, and stress. This could be due to the hassle of caring for multiple children, primary school students have a greater reliance on their parents, particularly in relation to their study assignments, and the epidemic keeps children from returning to school, resulting in increased stress, depression, and anxiety among their parents [10]. According to a research report, parents of children in primary school grades 1-3 face difficulties with distant learning and child supervision. Parents require resources to support their children's learning at home, yet only approximately 73% of parents have access to educational resources for distant learning. This causes concern for parents, as they are unprepared to address or make changes in the event of a rapid and unforeseen pandemic. They struggle to maintain a healthy balance between job, home, and supervisory responsibilities [17]. The current pandemic has exacerbated tensions between parents and children, particularly in elementary school. Numerous variables were discovered to be the cause of the 448 parents, including pressure and difficulties with learning, prior parent-child connections, and the usage of technological devices. The pandemic has altered the educational environment both at school and at home [16].

According with study results, the majority of parents reported experiencing mild to moderate stress, depression, and anxiety. However, the number was considerably larger for severe and extremely severe stress levels than for symptoms of depression and anxiety at the same level. These findings may be explained by the fact that adjustments in children's home learning practices that include a social stressor can impose additional pressure on parents whose lifestyles have changed as a result of the Covid-19 outbreak. Additionally, the COVID-19 pandemic left almost all parents feeling overwhelmed by their children's tasks. Children face learning difficulties as a result

of their parents' inability to understand learning modules, including how to provide learning material. This Covid-19 outbreak has also influenced parents' attention to how to protect family health, and social implementation distancing has impacted the family economy's disruption. These factors will have an effect on parents' stress levels [18]. The present study has several limitations should be addressed. First, this is a descriptive study; a correlational and longitudinal investigation would aid in comprehension. Continuous monitoring and research are necessary to assess the entire situation. Second, the current study was a questionnaire-based survey, with individuals self-selecting to participate. As a result, estimating the study's response rate is challenging, and selection bias linked to individual interest may have happened. Despite these limitations, to the best our knowledge, this is the first study in Indonesia to assess the psychological impact of stress, depression and anxiety related to distance learning on student's parent during the Covid-19 outbreak.

Conclusions

According to the research findings, students' parents require special attention due to their increased levels of stress, depression, and anxiety.

It is critical that the government, private sector, and other stakeholders respond swiftly to alleviate the effects and avert a worsening of the problems.

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References

1. WHO. Coronavirus disease (COVID-19) [Internet]. 2020 [cited 2021 Jun 25]. Available from: https://www.who.int/news-room/q-a-detail/coronavirus-disease-covid-19

2. United Nations. UNSDG | Policy Brief: Education during COVID-19 and beyond [Internet]. 2020 [cited 2021 Jul 22]. Available from: https://unsdg.un.org/resources/policy-brief-education-during-covid-19-and-beyond

3. Li C. The rise of online learning during the COVID-19 pandemic | World Economic Forum [Internet]. 2020 [cited 2021 Jul 22]. Available from: https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/

4. Abidah A, Hidaayatullaah HN, Simamora RM, Fehabutar D, Mutakinati L. The Impact of Covid-19 to Indonesian Education and Its Relation to the Philosophy of "Merdeka Belajar." Stud Philos Sci Educ SiPoSE. 2020;1(1):38–49.

5. KEMENDIKBUD. SURAT EDARAN MENDIKBUD NO 4 TAHUN 2020 TENTANG PELAKSANAAN KEBIJAKAN PENDIDIKAN DALAM MASA DARURAT PENYEBARAN CORONA VIRUS DISEASE (COVID- 1 9) – Pusat Pendidikan dan Pelatihan Pegawai Kemendikbudristek [Internet]. 2020 [cited 2021 Jul 22]. Available from: https://pusdiklat.kemdikbud.go.id/surat-edaran-mendikbud-no-4-tahun-2020-tentang-pelaksanaan-kebijakan-pendidikan-dalam-masa-darurat-penyebaran-corona-virus-disease-covid-1-9/

6. Morelli M, Cattelino E, Baiocco R, Trumello C, Babore A, Candelori C, et al.

Parents and Children During the COVID-19 Lockdown: The Influence of Parenting Distress and Parenting Self-Efficacy on Children's Emotional Well-Being. Front Psychol. 2020 Oct 6;0:2584.

7. Wang G, Zhang Y, Zhao J, Zhang J, Jiang F. Mitigate the effects of home confinement on children during the COVID-19 outbreak. The Lancet. 2020 Mar 21;395(10228):945–7.

8. Davis CR, Grooms J, Ortega A, Rubalcaba JA-A, Vargas E. Distance Learning and Parental Mental Health During COVID-19: https://doi.org/103102/0013189X20978806. 2020 Dec 15;50(1):61–4.

9. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. The Lancet. 2020 Mar 14;395(10227):912–20.

10. Wu M, Xu W, Yao Y, Zhang L, Guo L, Fan J, et al. Mental health status of students' parents during COVID-19 pandemic and its influence factors. Gen Psychiatry. 2020 Jul 21;33(4):100250.

11. Zhao Y, Guo Y, Xiao Y, Zhu R, Sun W, Huang W, et al. The Effects of Online Homeschooling on Children, Parents, and Teachers of Grades 1–9 During the COVID-19 Pandemic. Med Sci Monit Int Med J Exp Clin Res. 2020 Sep 12;26:e925591-1.

12. Damanik ED author, Erida Rusli supervisor. Pengujian reliabilitas, validitas, analisis item dan pembuatan norma Depression Anxiety Stress Scale (DASS): Berdasarkan penelitian pada kelompok sampel Yogyakarta dan Bantul yang mengalami gempa bumi dan kelompok sampel Jakarta dan sekitarnya yang tidak mengalami gempa bumi. Fakultas Psikologi Universitas Indonesia; 2006.

13. Roy S. Women "suffered greater mental stress" during COVID-19 lockdown [Internet]. 2020 [cited 2021 Jul 23]. Available from: https://www.kcl.ac.uk/news/women-suffered-greater-mental-stress-during-covid-19-lockdown

14. Fadlilah AN. Strategi Menghidupkan Motivasi Belajar Anak Usia Dini Selama Pandemi COVID-19 melalui Publikasi. J Obsesi J Pendidik Anak Usia Dini. 2020 Jun 26;5(1):373–84.

15. Apriyanti C. DISTANCE LEARNING AND OBSTACLES DURING COVID-19 OUTBREAK. J Ilm Pendidik Dasar. 2020 Jul 24;7(2):68–83.

16. Quan L. View of Practical Analysis of Mental Health Assistance in Elementary and Middle Schools under COVID-19 Pandemic: A Case Study of City A in Jiangsu, China [Internet]. 2020 [cited 2021 Oct 9]. Available from: https://bonoi.org/index.php/si/article/view/238/194

17. Garbe A, Ogurlu U, Logan N, Cook P. COVID-19 and Remote Learning: Experiences of Parents with Children during the Pandemic. Am J Qual Res. 2020 Aug 9;4(3):45–65.

18. Susilowati E, Azzasyofia M. The Parents Stress Level in Facing Children Study From Home in the Early of Covid-19 Pandemic in Indonesia. 2020 Jul 7;2.