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## Analysis of emotional behavior disorders (anxiety) in children during covid 19 in east Lampung, Indonesia

Ismi Mu'alifah, Teguh Pribadi\*, Rahma Elliya

Program Studi Ilmu Keperawatan, Fakultas Ilmu Kesehatan, Universitas Malahayati

\*Corresponding author. E-mail: [teguh@malahayati.ac.id](mailto:teguh@malahayati.ac.id)

**Background:** The COVID-19 virus or coronavirus disease is a virus that infects human respiration which was first discovered in Wuhan, China in 2019 and has spread throughout the world. Social distancing can cause acute stress and anxiety for children.

**Purpose:** To analysis of emotional behavior disorders (anxiety) in children during covid 19 east Lampung, Indonesia

**Method:** A quantitative, using a cross-sectional approach. The population is mothers who have children aged 5-11 years as respondents and can observe changes in their children's behavior during social restrictions because of the COVID-19 pandemic. The location is in Sumur Kucing village in 2021. A sample of 70 respondents was obtained using the snowball technique. Data collection techniques were carried out using a questionnaire. Statistical test analysis used is univariate and logistic regression.

**Results :** The demographic data of respondents were mostly female 47 (67.1%), aged 7 years with an average (mean) of 7.41 years  $\pm$  1.853. Basic Education 46 (65.7%), doing routine sports at home (indoor) 53 (75.7%), having playing facilities 64 (91.4%). and the category is not anxious 66 (94.3%). Of all the most related variables, namely the availability of playing facilities at home on anxiety during COVID-19, with a p-value of 0.002.

**Conclusion:** The statistical tests showed that anxiety in children during COVID-19 in Sumur Kucing Village in 2021, from several variables such as age, gender, education, and sports activities had no relationship with anxiety where the p-value was above 0.05. And the availability of play facilities at home is very important and is closely related to anxiety in children during the COVID-19 pandemic.

**Keywords:** Children; Anxiety; Social distancing; Pandemic covid 19

### INTRODUCTION

The COVID-19 virus or coronavirus disease is a virus that infects human respiration which was first discovered in Wuhan, China in 2019 and has spread throughout the world (Wahyuni, 2020). The World Health Organization indicates that the risk of spreading COVID-19 to other countries in the world is high. In March 2020, WHO assessed that COVID-19 could be classified as a pandemic. In Indonesia, the corona virus on March 2, 2020 has spread to date, which has an impact on the economic sector and even education. (World Health Organization., 2017). An effective way to prevent Covid-19 is to use hand sanitizer for hand hygiene. If your hands are not too dirty, or if your

hands are visibly dirty, wash your hands with soap, avoid touching your eyes, nose and practice coughing or sneezing etiquette. Use the inside of your arm or a tissue to cover your nose and mouth, then put the tissue in the trash. If experiencing respiratory symptoms, please wear a mask. After disposing of the mask, clean your hands and maintain a certain distance (at least 1 meter) from people experiencing respiratory symptoms (Ministry of Health of the Republic of Indonesia, 2020; Marzuki, 2021).

Based on global data related to the development of Covid-19 (data reported until 04 February 2021), There are 103,989,900 confirmed global data, 2,260,259

deaths in 222 infected countries, and 185 confirmed cases. Data countries related to the highest cases of local transmission are the United States, India, Brazil, Russia, Great Britain, France, Italy, Turkey, Germany (Ministry of Health, Republic of Indonesia, 2021).

Base on 34 provinces in Indonesia, the ten provinces with the highest confirmed cases are DKI Jakarta, East Java, West Java, Central Java, South Sulawesi, West Sumatra, Riau, East Kalimantan, North Sumatra and Bali (Ministry of Health of the Republic of Indonesia, 2020). Lampung province itself, based on reports up to the third of December 2020, the total number of confirmed cases was 4,142 old/new cases, 298 suspected cases, 198 people died and 2,344 cases have been completed isolation (Lampung Provincial Health Office, 2020). Behavioral disorders are complex disorders and are influenced by several interacting factors, such as individual factors (temperament and hormonal influences), family factors (parenting patterns and family stability), and environmental factors (quality of relationships with peers) that affect personal well-being and relationships with other people (Primasari, 2019).

The corona virus has infected millions of people around the world. By the end of April 2020, an estimated 1 billion children (5-12 years) and youth (13-17 years) had switched to distance learning and other methods of social behavior adaptation (e.g., social isolation, isolation after school suspension affecting lifestyle 24 hours for children and adolescents. Worryingly, the social distancing needed to reduce the spread of COVID-19 has increased the incidence of sedentary behavior disorders, which can disrupt sleep patterns and reduce opportunities for children and adolescents to engage in physical activity. conducive to long-term mental health and cardiometabolic outcomes of the general population, and these behaviors can develop in long-term adverse effects on children and adolescents. These lifestyle behavioral changes are at least partly due to changes in social culture and the natural environment, and can be contextualized by using a social ecology model (Bates et al., 2020). Anxiety or anxiety is su a condition in which emotions and experiences are subjective. Both are energies that cannot be directly observed. A nurse assesses an anxious patient based on certain behaviors. Mental health is the largest cause of disability worldwide (Power et al., 2020).

Regarding the physical activity of children aged 3 - 18 years in the US during the pandemic, there was a significant decline. Many types of physical activities such as outdoor sports and recreation have been canceled due to the pandemic, as are physical activities that are usually done with peers. Before the pandemic, children did a lot of physical activity either at home (garage), in parks, fields, gyms, or on the streets around the house. However, during the pandemic, children spend most of their time watching television/videos/movies, sitting while hanging out with friends and family in person, doing school-related work, and playing computer or video games. Research in the United Kingdom (England, Northern Ireland, Scotland and Wales) shows that school closures and social space restrictions can cause acute stress and anxiety for children. (Tambunan, Agniaty, & Ekayuni, 2021). Behavior is the result of all kinds of experiences and human interactions with the environment that are manifested in the form of knowledge, attitudes and actions. Behavior is a person's response or reaction to a stimulus that comes from outside or within himself (Notoatmodjo, 2014). Behavioral disorders are mental disorders diagnosed in childhood or adolescence that arises through repeated and persistent patterns of behavior in which the basic rights of others or major norms are age-appropriate violated.

Researchers conducted a pre-survey by distributing a google form questionnaire as many as 11 questions to 46 respondents, the results were related to social disorders for answers yes as much as 15.2% and 84.1% no. Easily offended by yes answers as much as 37% and no as much as 63%, lack of attention to yes answers as much as 21.7% and no 78.3%, assistance when learning the yes answers as much as 73.9% and no 26.1%, fear of new people the answer yes as much as 10.9% and no 89.1%, worries about going out of the house to play/school the answer is yes 30.4% and no 69.6%, something that is asked repeatedly answers yes as much as 58.7% and no 41.3%, nightmares, answers yes 60% and no 30%, irritability yes answers 45.7% and decreased appetite 73, 9% and no 26.1% and fatigue after playing yes answers 35.6% and no 67.4% .

## RESEARCH METHOD

Type of quantitative research with analytical survey method. The population has children aged (5-11) years

**Ismi Mu'alifah, Teguh Pribadi\*, Rahma Elliya**

Program Studi Ilmu Keperawatan, Fakultas Ilmu Kesehatan, Universitas Malahayati

\*Corresponding author. E-mail: teguh@malahayati.ac.id

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in Sumur Kucing Village, East Lampung. The total sample is 70 respondents who can observe changes in their children's behavior during the COVID-19 pandemic. The sampling technique used is snowball sampling. The research conducted in June 2021, in Sumur Kucing Village, East Lampung. This study used univariate and bivariate data analysis. The statistical test used is the Chi-Square test. The ethical clearance obtains from the ethics committee of Malahayati University with the number 1913 EC/KEP-

UNMAL/VI/2021 on June 30, 2021.

Tools/Measurements The research was conducted using an online questionnaire that had been tested for validity and reliability. This questionnaire discusses the following data: demographic data including children's names, age, gender, education, sports and play facilities, and (10 questions) Previously, validity and reliability tests have been carried out with the value of the validity test results obtained by Cronbach's Alpha p-value of 0.734. (Jiao et al., 2020).

## RESULTS

**Table. Children's Demographic Data (N=70)**

Variable		p-value	OR (CI 95 %)
<b>Age (Mean±SD) (Years) (Range)</b>	7.41± 1.853 (5-11)	2.593	
<b>Gender (n/ %)</b>		0.452	0.467 ( 0.061-3.543 )
-Male	23/32.9		
-Female	47/67.1		
<b>Education levels (n/%)</b>		0.687	1,605 (0.158-16.314)
-Kindergarten	24/34.3		
-Elementary	46/65.7		
<b>Has physical exercise habits (n/%)</b>		0.217	3.400 (0.441-26.220)
-yes	53/75.7		
-no	17/24.3		
<b>Has playground facilities (n/%)</b>		<b>0.002</b>	15.500 (1.708-140.645)
-Available	64/91.4		
-not available	6/8.6		
<b>Anxiety (n/%)</b>			
-Anxious	4/5.7		
-Not Anxious	66/94.3		

Based on table 1 it is known that most of the respondents are female, namely 47 (67.1%), aged 7 years with an average (mean) 7.41 years ±1,853 most of them have education from elementary school respondents, namely 46

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Program Studi Ilmu Keperawatan, Fakultas Ilmu Kesehatan, Universitas Malahayati

\*Corresponding author. E-mail: teguh@malahayati.ac.id

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(65.7%) and respondents who do sports as many as 53 (75.7%), respondents who have playing facilities as many as 64 (91.4%). and not anxious 66 (94.3%). Based on the results of the study, from 70 respondents it was known that there was no relationship between demographic factors and anxiety in children during Covid 19. Chi-square results using Pearson obtained a  $p$  value of 0.452 which means  $> 0.05$  then it is not significant/significant, meaning that there is no significant relationship between the independent variable and the dependent variable, or the hypothesis ( $H_0$ ) is accepted, or it is said that there is no relationship between demographic data and anxiety.

## DISCUSSION

### Age

Based on table 1 it is known that, obtained from 70 respondents, the average age (mean) is 7.41 years with a standard deviation of  $\pm 1.853$ . Based on statistical tests, obtained  $p$  value = 2.593 ( $> 0.05$ ) then it is not significant / significant meaning that there is no relationship between age factor and anxiety or the hypothesis ( $H_0$ ) is accepted. Based on the results of descriptive analysis of previous studies that the level of independence of early childhood raised by mothers who work part time outside the home is higher than early childhood who are cared for by housewives. The level of independence of early childhood children who are cared for by mothers who work in this study statistically obtained a mean/average of 180.76 with 11 children at a moderate level of independence with a percentage of 22%, 33 children at a high level of independence with a presentation of 66 %, and 6 children at a very high level of independence with a presentation of 12%. This shows that most of the early childhood children of working mothers have a high level of independence, and are higher than children who are cared for by mothers who do not work or are housewives. In statistical calculations the level of independence of early childhood in mothers who do not work in this study got a mean / average of 168.56 with 29 children at a moderate level of independence with a percentage of 58%, 19 children at a high level of independence with a percentage of 38% and 2 children at a very high level of independence with a percentage of 4%. This shows that most of the early childhood children from mothers who do not work have

a moderate level of independence and shows that the level of independence of early childhood children who are cared for by housewives is different from that of young children who are cared for by mothers who do not work/lower(Geofanny,2016).

Children aged 7-10 at this age children are more interested in activities that involve their physical and intellectual abilities that are channeled in school and sports. At this time the child is able to identify himself well as a boy or a girl. Usually boys will play with boys while girls play with girls. At this time the formation of the physical and spiritual development of children has been more perfect. Physical growth is growing rapidly and his health condition is getting better (El Fiah, 2017).

### Gender

Based on the results of the study, it is known that, of the 70 respondents who were male 23 (32.9%) and female 47 (67.1%). Based on statistical tests, obtained  $p$  value = 0.452 ( $> 0.05$ ). then it is not significant/significant meaning that there is no relationship between gender and anxiety or the hypothesis ( $H_0$ ) is accepted. Men are more difficult to face a situation to think what if they are facing a problem they are more focused on one problem only. This is different from women who are able to accommodate all for every problem, so it can be concluded that there is a difference in stress between women and men (Prihatiningsih & Wijayanti, 2019). In the Genital phase, the child begins to have an interest in the opposite sex, begins to establish relationships with friends of the opposite sex, learns to love, loves, needs affection and is loved by the opposite sex. (Rifda, 2017).

### Education levels

Based on the results of the study, it was found that, out of 70 respondents who had kindergarten education 24 (34.3%) and elementary school 46 (65.7%). Based on statistical tests, obtained  $p$  value = 0.687 ( $> 0.05$ ). then it is not significant/significant meaning that there is no relationship between education and anxiety or the hypothesis ( $H_0$ ) is accepted. with an OR value of 1.605. This is because the level of education is in the elementary school category, where the learning process in basic education does not have a learning focus on health materials. In this case, the child does

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Program Studi Ilmu Keperawatan, Fakultas Ilmu Kesehatan, Universitas Malahayati

\*Corresponding author. E-mail: teguh@malahayati.ac.id

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not understand everything that is happening in the surrounding environment that is happening at the current condition. This study is in line with previous research that in the study it was said that education with a statistical test stress level had a  $p$  value = 0.307 which showed no significant/significant relationship. These results are consistent with the statement that the higher a person's formal education receives information and makes use of existing health to improve the quality of his life (Yeni, Novayelinda & Karim, 2015). This is because the level of education is in the elementary school category, where the learning process in basic education does not have a learning focus on health materials. In this case, the child does not understand everything that is happening in the surrounding environment that is happening at the current condition.

### Physical exercise habits

Based on the results of research conducted by 70 respondents to mothers who have children aged 5-11 years, it is known that 53 respondents (75.7%). Based on statistical tests, obtained  $p$  value = 0.217 ( $> 0.05$ ). then it is not significant/significant meaning that there is no relationship between exercise and anxiety or the hypothesis ( $H_0$ ) is accepted. with an OR value of 3,400. Doing physical activity by exercising every day is part of a healthy life. exercising every day provides great benefits for teenagers, increasing energy and preventing chronic diseases. Not only adults, children need to get used to exercising (Andalasari, 2018). Sports psychology is a science that studies the behavior and experience of humans exercising in their interactions with other humans and in social situations (Darisman, 2021).

### Playground facilities

Based on the results of research conducted by 70 respondents on mothers who have children aged 5-11 years, it is known that respondents who have play facilities are 64 (91.4%). Based on statistical tests, obtained  $p$  value = 0.002 ( $< 0.05$ ). then it is significant/significant, meaning that there is a significant relationship between playing facilities and anxiety or the hypothesis ( $H_0$ ) is rejected, with an OR value of 15,500. This study is in line with previous research that in this study showed a decrease in children's anxiety levels after being given walkie play

therapy from an average of 10.50 down to 3.92 this proves that walkie talkie play therapy helps reduce the tension experienced by children, so that children can divert the pain through the game (Aini & Zulaicha, 2016).

The function of play is related to providing opportunities for children to play, because in essence playing itself is a right throughout its life span. Through play, children will explore their world and build their own knowledge. Play is an important vehicle for social, emotional, cognitive and other aspects of development as well as for reflection and detection of children's developmental achievements. understanding that children are active builders of knowledge and that development and learning are the result of interactive processes, so in this case teachers need to understand that games are an important context as a very high supporting context in the child's development process. Play can provide opportunities for children to understand the world, relate to others in social ways, express and control emotions, and build their symbolic abilities. Children's play provides adults with a deep understanding of child development and the opportunity to support a new developmental strategy (El Fiah, 2017).

### CONCLUSION

It is known that from 70 respondents, the average age (mean) is 7.41 years with a standard deviation of  $\pm 1.853$ . most of the respondents are female, namely 47 (67.1%). education of 70 respondents SD 46 (65.7 sports 53 (75.7%). Play facilities 64 (91.4%). The results showed the majority in this study were not anxious 66 (94.3%) and anxious 4 (5.7%). it means that there is no relationship between demographic factors and anxiety

### SUGGESTIONS

It is hoped that the community in Sumur Kucing Village will provide play facilities programs so that children do not feel lonely such as origami paper, clay to hone children's creativity in playing so that they can reduce boredom during social restrictions.

Ismi Mu'alifah, Teguh Pribadi\*, Rahma Elliya

Program Studi Ilmu Keperawatan, Fakultas Ilmu Kesehatan, Universitas Malahayati

\*Corresponding author. E-mail: teguh@malahayati.ac.id

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Program Studi Ilmu Keperawatan, Fakultas Ilmu Kesehatan, Universitas Malahayati

\*Corresponding author. E-mail: teguh@malahayati.ac.id

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**Ismi Mu'alifah, Teguh Pribadi\*, Rahma Elliya**

Program Studi Ilmu Keperawatan, Fakultas Ilmu Kesehatan, Universitas Malahayati

\*Corresponding author. E-mail: teguh@malahayati.ac.id

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