

Research Article



## The Impact Of Covid-19 On The Mental Health Of School Children Using The Children Depression Inventory (CDI) Instrument

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### ABSTRACT

**Background:** Educational services aimed at children of all ages are still not fully open, and teaching and learning activities from elementary grades onward are still being provided alternately offline and online. More than 2.2 billion children in the world, which is about 28% of the world's child population, experience changes in mental health. COVID-19 has affected the lives of children and young people like never before. Children may be more vulnerable than others to the psychosocial effects of a pandemic. This can hinder children's growth and development, eliminate children's opportunities to manage stress, and cause social isolation. This study aims to look at the relationship between post-COVID-19 impacts and the mental health of school-age children using the Children's Depression Inventory (CDI).

**Methods:** This research is a cross-sectional study using a conclusive research design aimed at examining a phenomenon through hypothesis testing. Data collection was carried out at 38 Public Elementary School, Kendari City, Southeast Sulawesi. The convenience sampling technique is used to select research respondents. Data collection used the Children's Depression Inventory (CDI) questionnaire.

**Results:** The results of the study obtained a p-value of 0.000 where 0.05, indicating a significant relationship between post-Covid-19 responses and the mental health impact of school-age children using the Children's Depression Inventory (CDI) at 38 Public Elementary School, Kendari City.

**Conclusion:** Based on the results of this study, the mental health of school-age children needs to be one of the elements included in the nursing care process that will be provided by nurses.

**Key words:** *Mental health, impact of covid-19, Children Depression Inventory, children*

## INTRODUCTION

The Covid-19 pandemic has not ended in the world or in Indonesia, which has had an impact on all sectors, especially the health and education sectors. To restore the situation, the government made a new policy that we know as the new normal life (1). Nonetheless, educational services aimed at children of all ages are still not fully open, and teaching and learning activities from elementary grades onwards are still being provided alternately offline and online (2).

These situations significantly increase the risk of experiencing stress and negative emotions in parents, with potentially detrimental effects on children's mental health (3). There are more than 2.2 billion children in the world, which is about 28% of the world's child population, experiencing changes in mental health. Those between the ages of 10 and 19 make up 16% of the world's population (4). Children may be more vulnerable than others to psychosocial effects during a pandemic, because they are in a period of growth and development (5).

One study said that the level of post-traumatic stress in children who underwent quarantine would be four times higher than that of children who did not experience quarantine (6). All of this adversely affects children's mental health and well-being, leading to a wide variety of mental health problems, such as anxiety, stress, depression, and trouble sleeping (2). School closures, resulting in reduced interaction with peers and reduced opportunities for exploration and physical activity (7).

This can hinder children's growth and development, eliminate children's opportunities to manage stress, and cause children social isolation (8). Withdrawal from social life and daily activities, such as

going to school, socializing coupled with fear, anxiety and feelings of unpredictability can increase the risk of experiencing psychiatric disorders in the future, even for those who have no such history (9).

The Children Depression Inventory (CDI) is a questionnaire consisting of 27 question items that assess current depressive symptoms in children aged 7-17 years. The CDI can assess how your child has felt or acted in the last two weeks. This scale is useful in clinical practice for viewing early signs of depression as well as assessing depressive symptoms over time (10). The purpose of this study was to assess the post-covid-19 impact on the Mental Health of school-age children using the Children Depression Inventory (CDI) at 38 Public Elementary School, Kendari City.

## METHOD

This type of research is a cross-sectional study using a non-probability method. In this study, the authors used a conclusive research design because this research aims to examine a phenomenon through hypothesis testing regarding the impact of post-Covid-19 on the Mental Health of school-age children using CDI. This research was conducted at 38 Public Elementary School, Kendari city in April-May 2023 with a total sample of 85 respondents. Sampling was carried out using convenience sampling technique.

Data collection used the Children Depression Inventory (CDI), consisting of 27 question items assessing current depressive symptoms in children aged 7-17 years. Scores on the CDI range from 0 to 27, with a higher score indicating a greater degree of depressive symptoms the child is experiencing. Scores are also presented in



two levels, namely non-depressed ( $\leq 50\%$ ) ( $\alpha=0.05$ ). and depressed ( $> 50\%$ ). Data analysis used the chi square test, at a 95% confidence level

## RESULTS

The distribution of respondents based on gender and age in children in this study is presented in table 1 as follows:

**Table 1. Characteristics of Respondents**

Characteristics of Respondents	Frequency Distribution	
	n	%
<b>Gender</b>		
Male	44	51.8
Female	41	48.2
<b>Child Age</b>		
11 Years	45	52.9
12 Years	40	47.1
<b>Total</b>	85	100.0

The number of respondents involved in this study were 85 children. Table 1 shows that of the 85 respondents, the highest gender was male with 44 children (51.8%) while the lowest was female with 41 children (48.2%). In the age category, out of 85 respondents who had children aged 11 years, there were 45 children (52.9%), while there were 40 children aged 12 years (47.1%).

**Table 2. Relationship between Post-Covid-19 Impact on Children's Mental Health using the Children Depression Inventory (CDI)**

Post Covid-19 Impact	Children's Mental Health		Total		p value
	Non Depression	Depression	n	%	
	n (%)	n (%)			
<b>Good Impact</b>	41 (91.1)	11 (27.5)	52	61.2	<b>0.000</b>
<b>Low Impact</b>	4 (8.9)	29 (72.5)	33	38.3	
<b>Total</b>	45 (100)	40 (100)	85	100	

Table 2 shows that of the 85 children who had a good post-covid response to child mental health (non-depression) as many as 41 children (91.1%) and who had a good post covid response to child mental health (depression) as many as 11 children (27.5%), while those who had a low post covid response to children's mental health (non-depression) were 4 children (8.9%) and those who had a post-covid response low to children's mental health (depression) were 29 children (72.5%).

Based on the results of statistical tests using the chi-square test, the p-value = 0.000 is obtained, where  $\alpha < 0.05$ . This shows that there is a significant relationship between Post

Covid-19 Responses to the Mental Health Impact of School-Age Children Using the Children Depression Inventory (CDI) at 38 Public Elementary School, Kendari City.

## DISCUSSION

Mental health for school-age children is important because it will determine the child's mental health in the future. The formation of children's mental health can be started from the first year of the child's birth (11). At school age children should try to get information and be able to see problems from various points of view. However, with the presence of Covid-19 this development has encountered obstacles. This causes school-age children to experience depression, social isolation and other mental disorders (12).

In this study, the children's response in general was still said to be good (61.2%), but many school-age children were still experiencing mental disorders after Covid-19. Mental health impacts that arise in post-Covid-19 children such as anxiety disorders, social and school phobias and post-traumatic stress disorder (13). In general, the impact of Covid-19 on children is still good (61.2%), but many school-age children are still experiencing mental disorders after Covid-19. This is evidenced by the results of the test of the closeness of the relationship between the dependent and independent variables which obtained that the impact of Post Covid-19 was significant on the Mental Health of School-Age Children using CDI at 38 Public Elementary School, Kendari.

Children who have experienced less impact after Covid-19 and whose mental health has been disturbed (72.5%). Mental health impacts that arise in post-Covid-19 children such as anxiety disorders, social and school phobias and post-traumatic stress disorder (14). In addition, the impact of Covid-19 has caused children's sleep schedules to be irregular and limited interaction between friends (15). Children cannot carry out activities as usual, such as playing ball, running, riding a bicycle, exercising and so on (16).

## CONCLUSION

The results of this study indicate that there is a close relationship between the impact of Post Covid-19 on the Mental Health of School-Age Children Using the Children Depression Inventory (CDI) at 38 Public Elementary School, Kendari City. Based on the results of this study, the mental health of school-age children needs to be one of the elements included in the nursing care process that will be provided by nurses. In addition, these results can also provide input for better policies in dealing with mental health among adolescents and children in Indonesia.

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