

## The Development of Preschool Children during the COVID-19 Pandemic

Lilis Maghfuroh<sup>1\*</sup>, Sylvi Harmiadillah<sup>2</sup>, Harnina Samantha Aisyah<sup>3</sup>, Diah Eko Martini<sup>4</sup>,  
Heny Ekawati<sup>5</sup>

<sup>1,2,3,4,5</sup>Nursing Programme, Faculty of Health Science, Universitas Muhammadiyah  
Lamongan, Lamongan 62218, Indonesia

\*Corresponding Author: Lilis Maghfuroh

Email: [lilisahza99@gmail.com](mailto:lilisahza99@gmail.com)

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### Abstract

*Children are the dream of every family, the preschool period is a period of increasing development so that it is expected to develop optimally according to their age. The purpose of this study was to analyze the factors that influence the development of preschool children during the COVID-19 pandemic, namely the factors of children's diet, child's nutritional status, child's gender, parents' education, parents' age, and parent's occupation. This research is a quantitative research that uses a correlation analytic design with a cross-sectional type of design. The sampling used was simple random sampling with a population of 53 and a sample of 47 preschool children aged 3-6 years at Tunas Melati Kindergarten, Cluring Village, Kalitengah District, Lamongan. Data analysis using SPSS for Windows 23 with Spearman, Mann Whitney, and Pearson correlation statistical tests. The results of the study showed that almost all of the parents were 20-35 years old, more than half of the parents had high school education, more than half of the parents were working status, more than half of the gender were girls, more than half of the children's diet was moderate, more than half of the children's status. normal child nutrition, and more than part of the child's development according to his age. The results of statistical tests show that there is a relationship between diet and nutritional status with the development of preschool children during the COVID-19 pandemic, there is no relationship between parental age, parental education, parental occupation, and gender of children with the development of preschool children during the COVID-19 pandemic.*

**Keyword:** *development, preschool children, pandemic, COVID-19.*

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## **INTRODUCTION**

The COVID-19 pandemic has brought many changes in human life, health, economy, psychology, and social life, including children, especially preschoolers where they are the most affected individuals because they are in the stage of growth and development.(Durmuşoğlu Saltalı, 2021). The preschool stage is a stage where development is rapid, involves many critical developmental stages, and the impact of environmental factors on high development, besides that children's habits are also formed and become a routine for children to feel safe. During the process of the COVID-19 pandemic, the daily routine of children's lives is maintained by parents, such as sleep patterns, nutrition, education, and play activities(Yafie, Giavarini and Maulidia, 2020; Durmuşoğlu Saltalı, 2021).

The description of the impact on children in Indonesia caused by the COVID-19 pandemic and various related efforts to reduce transmission and control the pandemic can be grouped into four categories, child poverty, learning, nutrition, and care and security. (UNICEF, 2020). According to UNICEF data (2020) during the COVID-19 Pandemic, 9 out of 10 children experienced deficiencies in at least one aspect of child welfare, access to food and nutrition, health, education, housing, water and sanitation, and child protection. Poor physical growth is usually associated with delayed mental development. A number of studies have also shown a relationship between growth status and school performance and intellectual achievement(Chapman-Novakofski, 2010).

Early childhood growth and development is closely related to individual health status. There are several risk factors that interfere with child development during the COVID-19 pandemic, including sleep disorders, incorrect use of masks, the risk of inactivity and obesity, unhealthy eating patterns, and reduced opportunities for outdoor play.(Durmuşoğlu Saltalı, 2021). The picture of nutritional problems in children is also known to have existed before the COVID-19 pandemic and is expected to worsen due to the COVID-19 pandemic. Children can experience malnutrition for various reasons, including inadequate breastfeeding practices, poor diet and nutritional intake, plus less than optimal parenting. These factors are compounded by widespread poverty, unemployment, and low levels of education(UNICEF, 2020).

Efforts to suppress the spread of COVID-19 infection are also believed to be able to complicate the identification and treatment and provision of essential services for children who have problems in fulfilling nutrition. Disturbances in fulfilling household food needs during the COVID-19 pandemic are also expected to increase the prevalence of malnutrition, especially in pregnant and lactating mothers, as a result, can lead to various forms of malnutrition in children.(UNICEF, 2020). The implementation of learning from home (BDR) also affects children social life during the COVID-19 pandemic. Several conditions such as isolation, school closures, reduced social life and physical activity, and changes in routine are risk factors from the perspective of the social development of preschoolers.(Araújo et al., 2020;

Durmuşođlu Saltalı, 2021). This can be seen from the child's relationship with the people around him, friendship, kinship and neighbourly relationships(Durmuşođlu Saltalı, 2021). The analysis of the factors that affect the development of children, especially pre-school age children during the COVID-19 pandemic cannot be explained, therefore efforts to identify all aspects of child development during the COVID-19 pandemic need to be known in order to help strengthen strategies for preventing disorders in child development and encourage optimal development according to age. The purpose of this study was to analyze the factors that influence the development of preschool-aged children during the COVID-19 pandemic, namely the factors of children's diet, child's nutritional status, child's gender, parents' education, parents' age, and parents' occupation.

## METHOD

This study is a quantitative study that uses a correlation analytic design with a cross-sectional type of design that aims to determine the relationship between children's diet and the development of preschool children during the COVID-19 pandemic, to determine the relationship between children's nutritional status and the development of preschool children during the COVID-19 pandemic. , to find out the relationship between the sex of the child and the development of preschool children during the COVID-19 pandemic, to determine the relationship between parental education and the development of preschool children during the COVID-19 pandemic, to determine the

relationship between parental age and the development of preschool children during the COVID-19 pandemic. , and to find out the relationship between parents' work and the development of preschool children during the COVID-19 pandemic. The sampling used was simple random sampling with a population of 53 and a sample of 47 preschool children aged 3-6 years at Tunas Melati Kindergarten in Cluring Village, Kalitengah District, Lamongan in 2021.

## RESULTS

Table 1. The relationship between children's dietary factors and the development of preschool children during the COVID-19 pandemic.

Dietary Habits	Development							
	Conform		Doubt		Deviation		Total	
	f	%	f	%	f	%	f	%
Well	9	19,1	1	2,1	1	2,1	11	23,3
Currently	20	42,5	3	6,4	3	6,4	26	55,3
Deficient	1	2,1	8	17,0	1	2,1	10	21,3
Total	30	63,7	12	25,5	5	10,6	47	100

*P value 0.003*

Table 2. The relationship between the nutritional status of children and the development of preschool children during the COVID-19 pandemic.

Status Gizi	Development							
	Conform		Doubt		Deviation		Total	
	f	%	F	%	f	%	f	%
Fat	1	2,1	0	0,0	0	0,0	1	2,1
Normal	25	53,2	3	6,4	5	10,6	33	70,2
Skinny	4	8,5	6	12,8	0	0,0	10	21,3
Very skinny	0	2,1	3	6,4	0	0,0	3	6,4
Total	30	63,8	12	25,5	5	10,6	47	100

*P value 0,015*

Table 3. The relationship between child sex factors and the development of preschool children during the COVID-19 pandemic.

Gender	Development							Development								
	Conform		Doubt		Deviation		Parents' Total	Conform		Doubt		Deviation		Total		
	f	%	F	%	f	%		f	%	f	%	f	%	f	%	
Man	7	14,9	6	12,8	2	4,2	32 Does not work	9	48,	5	10,	4	8,5	32	68,1	
Woman	23	48,9	6	12,8	3	6,4		32	68,1	14,	7	14,	1	2,1	15	31,9
Total	30	63,8	12	25,6	5	10,6	47	100	9	25,	9	25,	5	10,6	47	100
<i>P value 0,123</i>							<i>P value 0,188</i>									

Table 4. The relationship between parental age and the development of preschool children during the COVID-19 pandemic.

Parent's age	Development						
	Conform		Doubt		Deviation		Total
	f	%	F	%	f	%	
20-35 Years	26	55,3	12	25,5	5	10,6	43
>35 years old	4	8,5	0	0	0	0	4
Total	30	63,8	12	25,5	5	10,6	47
<i>P value 0,156</i>							

Table 5. The relationship between parental education factors and the development of preschool children during the COVID-19 pandemic.

Parent's education	Development							
	Conform		Doubt		Deviation		Total	
	f	%	F	%	f	%	f	%
Junior high school	23	48,9	9	19,	4	8,5	3	76,5
Senior High School	7	14,	1	2,1	1	2,1	9	19,1
College	0	0	2	4,3	0	0	2	4,3
Total	30	63,	12	25,	5	10,6	4	100
<i>P value 0.887</i>								

Table 6. The relationship between parental work factors and the development of preschool children during the COVID-19 pandemic.

## DISCUSSION

The results of this study indicate that there is a significant relationship between dietary factors and nutritional status with the development of preschool children during the COVID-19 pandemic. This means that the better the diet and nutritional status of the child, the better the child's development.

The development of a child is influenced by many factors, including nutritional status. Nutritional status is influenced by eating habits. Healthy eating habits in children are important in preventing growth retardation and acute nutritional problems in children (Al-Shookri et al. 2011)

According to research by Noviyani et al, that diet has a relationship with child development where parents who have a good level of knowledge about eating patterns will be able to monitor and train children for optimal development so that if there is a growth disorder in children, it can be detected early (Noviani et al., 2018).

The results of the study stated that almost all respondents had a regular diet and experienced normal development, with the results of the value of rho  $y = 0.633$  and  $r$  table = 0.359 or rho  $y > r$  table ( $0.633 > 0.359$ ) so that there is a relationship between diet and the development of children aged 4-6 years Sunan Giri Merjosari

Kindergarten Malang (Lopes et al., 2018).

Gunawan et al stated that to achieve good growth and development, adequate nutrition is needed. Food that is not good in quality and quantity will lead to less nutritional growth. Undernutrition can cause growth and development disorders, especially in development, it can cause brain function and structure disorders. The balance between nutrient intake and the amount needed by the body is very important to fulfil various body functions. Disorders of poor nutritional intake can be influenced by various factors. One of them is food sufficiency. The insufficient nutritional status will affect children's health so they are vulnerable to various diseases (Gunawan et al., 2011).

The results of the study showed that there was no direct relationship between the age, education, and occupation of parents with the development of preschool children during the COVID-19 pandemic, this is in accordance with the results of research from Livana, PH, Hermanto, H., & Pranita, P. (2019) that there is no relationship between parental characteristics (age, education, occupation, income) with child development. And according to the research results of Sunarsih, T., Astuti, EP, & Shanti, EFA (2021) it was found that there is no relationship between education, work, parental income and child development.

This is probably because in this pandemic condition to minimize the spread of COVID-19, people are expected to stay at home. However, it was found that there was an indirect relationship between these factors because children still need the participation of parents, in which the age, education and occupation of parents will affect their knowledge so that they can affect the role of parents

in providing stimulation, implementing children's eating patterns and fulfilling nutrition which has an impact on on the nutritional status of children. With stimulation, a good diet and nutritional status will affect the development of children. This is in accordance with the results of the study Jayatmi, I., & Herliana, I. (2018) that the role of parents can affect children's development, namely forming abilities and skills in nurturing and educating them, the higher the level of knowledge, the more able to monitor and train children to achieve optimal development

There is no relationship between the sex of the child and developments during the COVID-19 pandemic, because during this pandemic it has been more than 1 year that all children study at home and are active at home so that they do not get developmental stimulation from outside the home, which is usually not in a pandemic condition other than children can be stimulated at home from parents and family members as well as children can study at school so that they get stimulation both from teachers and from peers and the school environment but in this pandemic condition children only get stimulation at home from parents and family members.

This is in accordance with Soetjningsih's 2017 opinion that child development is influenced by developmental stimulation. And according to Yafie, E., Giavarini, I. and Maulidia, LN (2020) that stimulation is needed for child development during the COVID-19 pandemic.

## **CONCLUSION**

The conclusion of this research is there is a relationship between diet and nutritional status of children with

the development of preschool children during the COVID-19 pandemic, and there is no relationship between the child's gender, parents' age, parents' education, and parents' occupations with the development of preschool children during the COVID-19 pandemic.

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