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Relationship Between Toddler Characteristics And Bronchopneumonia Incidence

Sry Rizki [1*], Asmima Yanti [2], Fitri Apriani [3]
[1,3] Nursery Study Program, Sekolah Tinggi Ilmu Kesehatan Medika Seramoe Barat, Indonesia
[2] Midwifery Study Program, Sekolah Tinggi Ilmu Kesehatan Medika Seramoe Barat, Indonesia
sryrizki87@gmail.com [1*], yantiasmima27@gmail.com [2], fitriapriani177@gmail.com [3]

Address: Jl. Industri, Seuneubok, Kec. Johan Pahlawan, Kabupaten Aceh Barat, Aceh 23616
Corresponding Author: sryrizki87@gmail.com

Abstract.*Background: Bronchopneumonia is the leading cause of death in toddlers. The incidence of Bronchopneumonia in Indonesia is 31.4%, in Aceh it is 22.62%. The incidence of Bronchopneumonia in the pediatric ward of Dr. H. Yuliddin Away Tapaktuan Hospital ranks second after diarrhea cases. Toddler characteristic factors that influence the incidence of bronchopneumonia are: age, gender, birth weight, history of breastfeeding, nutritional status, and history of immunization. Research Objective: This study was conducted to determine the relationship between toddler characteristics (gender, birth weight, history of breastfeeding, nutritional status, history of immunization) and the incidence of bronchopneumonia in the pediatric ward of Dr. H. Yuliddin Away Tapaktuan Hospital. Research Method: This study used a descriptive analytical method. While to analyze bivariate data by testing the relationship between independent and dependent variables with the chi-square test. The respondents of the study were parents of toddlers whose children were treated in the pediatric ward of Dr. H. Yuliddin Away Tapaktuan Hospital as many as 50 respondents. Conclusion: Based on the chi-square test analysis, it shows that there is a relationship between several toddler characteristic variables and the incidence of bronchopneumonia at RSU DR. H. Yuliddin Away Tapaktuan, namely low birth weight p value 0.026, non-exclusive breastfeeding p value 0.029 and poor nutritional status p value 0.018. The results of the p value <0.05 so that there is a significant relationship between the independent and dependent variables. Suggestion: The results of this study can be input to the institution of DR. H. Yuliddin Away Tapaktuan General Hospital and become a guideline for improving health services for toddlers with bronchopneumonia.*

Keywords: *Bronchopneumonia, Toddlers, Incidence, Characteristics*

1. INTRODUCTION

BronchoPneumonia is the leading infectious cause of death in children under five worldwide. Bronchopneumonia killed 740,180 children under five, accounting for 14% of all deaths under five. Pneumonia affects children and families everywhere, but the highest mortality occurs in South Asia and Sub-Saharan Africa.(WHO, 2022). Toddlerhood is a very important period in the human growth and development process because growth and development occur rapidly and are a factor in the success of children's growth and development in the future (Susanti, 2020).

The coverage of bronchopneumonia incidents in toddlers in Indonesia in 2021 was at 31.4%, in Aceh 22.6% (Ministry of Health of the Republic of Indonesia, 2022), in South Aceh Regency inIn 2019 there were 49 cases (South Aceh Health Office, 2019).Bronchopneumonia in toddlers can cause mild to severe symptoms and is at risk of causing life-threatening complications. Bronchopneumonia is an inflammation of the respiratory tract that occurs in the bronchi to the alveoli of the lungs. Bronchopneumonia

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(lobar pneumonia) is an infection of the lung parenchyma involving the bronchi/bronchioles in the form of a patchy distribution caused by bacteria, viruses, fungi, and foreign objects (Chaeruddin et al., 2021).

Toddlers whose body organs are not yet functioning optimally, which results in them being more susceptible to disease. One of the reasons why children are more susceptible to bronchopneumonia is because their immune system is still weak and not yet fully formed. (Sariningrum, 2022). The entry of fungi, viruses and bacteria into the lungs which are the cause of Bronchopneumonia in toddlers will increase sputum production. This is a major problem in children because of the inability to expel secretions, which results in ineffective airway clearance in children (Adriana, 2015). Airway clearance problems if not treated immediately can cause Hypoxia, loss of consciousness, seizures, permanent brain damage, respiratory arrest and even death (Sukma, 2020).

There are several factors that influence the incidence of broncho pneumonia in toddlers, namely intrinsic and extrinsic factors. Intrinsic factors are factors that exist in toddlers including age, gender, nutritional status, low birth weight, immunization status, breastfeeding, and vitamin A. While extrinsic factors are factors that do not exist in toddlers including housing density, ventilation, lighting, humidity, type of fuel, family income, and maternal factors such as education, knowledge and smoking habits of family members (Mardani, Pradigdo and Mawarni, 2018).

The susceptibility of toddlers to Bronchopneumonia disease is influenced by certain characteristics. Some characteristic factors of children suffering from Bronchopneumonia are based on age, gender, history of breastfeeding, immunization, nutritional status, and history of birth weight (fadhillah, 2015).

The results of Sinaga's research (2015) on113 toddlers who experienced bronchopneumonia found that there was a relationship between gender, low birth weight, history of immunization, and history of breastfeeding with the incidence of bronchopneumonia.Fatimah et al (2020), in their researchdid not find any relationship between low birth weight and the incidence of bronchopneumonia, but found a relationship between malnutrition and the incidence of bronchopneumonia.

The results of an interview with the Head of the Children's Room at the Dr. H. Yuliddin Away Tapaktuan General Hospital, bronchopneumonia cases are the second highest cases after diarrhea. In July to December 2023, there were 110 toddler patients with bronchopneumonia cases

2. LITERATURE REVIEW

Risk factors for pneumonia are divided into two large groups, namely intrinsic factors and extrinsic factors. Intrinsic factors are factors that exist in toddlers including age, gender, nutritional status, low birth weight, immunization status, breastfeeding, and vitamin A. While extrinsic factors are factors that do not exist in toddlers including housing density, ventilation, lighting, humidity, type of fuel, family income, and maternal factors such as education, knowledge and smoking habits of family members (Mardani, Pradigdo and Mawarni, 2018).

Intrinsic Factors

a. Toddler age

The highest incidence of toddler pneumonia occurs in the age group of 12-23 months. Infants and toddlers are age groups that are vulnerable to infection by viruses and bacteria such as influenza and pneumonia. This is because the respiratory tract in infants and toddlers is narrow and immunity is not yet perfect. (Rigustia, Zeffira and Vani, 2019).

b. Gender

Toddlers with male gender have a higher risk of getting pneumonia compared to females. This is due to the physical differences in the anatomy of the respiratory tract of male and female toddlers and the differences in immunity between male and female toddlers which can increase the frequency of respiratory tract diseases (Mardani, Pradigdo and Mawarni, 2018).

c. Low birth weight

Low Birth Weight (LBW) in toddlers is caused by the mother's condition during pregnancy (teenage pregnancy, malnutrition and pregnancy complications), twins, fetuses with abnormalities or congenital conditions, and disorders in the placenta that inhibit the growth of toddlers. Low Birth Weight (LBW) is a condition where toddlers are born with a weight below 2500 grams, while the normal birth weight of toddlers ranges from 2500-4000 grams (Ministry of Health of the Republic of Indonesia, 2019).

d. Immunization status

Immunization is important for toddlers to prevent diseases, one of which is pneumonia. Related immunizations are pertussis, measles, haemophilus influenza and pneumococcus immunization. Measles immunization can prevent measles and pneumonia. DPT immunization prevents pneumonia as a complication of pertussis,

and haemophilus influenza immunization prevents pneumonia and meningitis (Rigustia, Zeffira and Vani, 2019).

e. Exclusive breastfeeding

Exclusive Breast Milk (ASI) is breast milk given to babies from birth for 6 months, without adding or replacing it with other foods or drinks (except medicines, vitamins, and minerals). ASI contains colostrum which is rich in antibodies because it contains protein for the immune system and is useful for killing germs in large quantities so that exclusive breastfeeding can reduce the risk of death in toddlers (Ministry of Health of the Republic of Indonesia, 2020).

f. Giving vitamin A

Vitamin A is an important nutrient for toddlers to increase their body's resistance to disease. Vitamin A deficiency in toddlers can cause blindness and increase the risk of death. Toddlers who are not given complete vitamin A according to their age are at high risk of suffering from pneumonia compared to toddlers who are given vitamin A. Giving vitamin A supplements can increase immunity and protect toddlers' respiratory tracts from germ infections. (Sari, 2017).

g. Nutritional status

Nutrition is the foundation of health that affects immunity, susceptibility to disease, and growth and development. Assessment of toddler nutritional status using child anthropometric standards. The child anthropometric standards are based on weight and height parameters consisting of four indices, namely BB/A, TB/A, BB/TB and BMI/A (Ministry of Health of the Republic of Indonesia, 2020).

Poor nutritional status in toddlers will damage the body's defense system against microorganisms and mechanical defenses, so that they will easily suffer from infectious diseases such as pneumonia (Ariana, 2015).

Extrinsic Factors

a. Residential Density

Dense housing conditions cause toddlers to be at high risk of suffering from pneumonia, because it can accelerate the transmission process of microorganisms in the house. In addition, the volume of air in the residence is important in ensuring adequate indoor air. If the condition of the living room is small, the air produced is also limited, thus affecting the incidence of Pneumonia in toddlers (Mawarni et al., 2018).

b. Air pollution

It is estimated that 1.6 million infant deaths are related to air pollution from the kitchen. Air pollution from the kitchen and inside the home plays an important role in the risk of death in infants. Several studies have shown that infants who live in homes that use electricity or gas for cooking are at lower risk of pneumonia than infants who live in homes that use kerosene or wood (Ministry of Health of the Republic of Indonesia, 2010).

c. Mother's job

The high incidence of pneumonia in toddlers can be influenced by the employment status of parents. Working mothers spend more time outside the home than inside the home, which can affect the health status of children, because working mothers will have less time to pay attention and care for their children's health. On the other hand, mothers who do not work have more time to care for their children. (Yanti, Machmud and Fajriah, 2020).

d. Smoking Habits of Family Members

Toddlers who have family members who smoke are at risk of suffering from pneumonia compared to toddlers who do not have family members who smoke. This is because cigarette smoke contains particles in the form of nicotine, carbon monoxide, nitrogen oxide and hydrocarbons which can cause damage to the ciliated epithelium, thus disrupting the lung defense system in toddlers (Vani et al., 2019).

3. METHODS

This type of research is descriptive analytical. The type of descriptive analytical research is a type of research that aims to describe and analyze the nursing problems studied. In this study, what is described and analyzed is the relationship between Gender, Birth Weight, Breastfeeding History, Nutritional Status, and Completeness of Basic Immunization with the Incidence of Bronchopneumonia in Toddlers in the Children's Ward of DR. H. Yuliddin Away Tapaktuan General Hospital.

The research approach used is the Cross Sectional Study approach, namely a research approach carried out without any treatment of respondents which aims to study whether or not there is a relationship between the independent variable (incidence of Bronchopneumonia in toddlers) and the dependent variable (Gender, Birth Weight, History of Breastfeeding, Nutritional Status, and Completeness of Basic Immunization) in Toddlers in the Children's Ward of the DR. H. Yuliddin Away Tapaktuan General

Hospital. This research was conducted in the Children's Ward of the Dr. H. Yuliddin Away Tapaktuan Hospital, South Aceh Regency. This research was conducted from March 20 to April 18, 2024. The population of this study was 80 parents of patients who were an average of 2-month visits and their children were treated in the Children's Ward of the DR. H. Yuliddin Away Tapaktuan General Hospital.

4. RESULTS

Table 1. Relationship between toddler gender and incidence of bronchopneumonia (N=50)

Gender	Diagnosis				Total		p value
	Bronchopneumonia		No Bronchopneumonia				
	n	**%**	**n**	**%**	**n**	**%**	
Man	20	40	10	20	30	60	
Woman	11	22	9	18	20	40	0.405
Amount	31	62	19	38	50	100	

Based on the table1 shows that out of 50 male toddler respondents with bronchopneumonia incidents amounted to 20 people (40.0%), not bronchopneumonia 10 people (20.0%). Female toddlers with bronchopneumonia incidents 11 people (22.0%), not bronchopneumonia 9 people (18.0%). the results of the chi square test p value of 0.405 so that the p value> 0.05 means there is no significant relationship between gender and the incidence of bronchopneumonia in toddlers at RSU DR.H. Yuliddin Away Tapaktuan.

Table 2. Relationship between birth weight of toddlers and incidence of bronchopneumonia (N=50)

Birth weight	Diagnosis				Total		p value
	Pneumonia		Not Pneumonia				
	n	**%**	**n**	**%**	**n**	**%**	
low BBL	27	54	10	20	37	74	
normal BBL	2	4	5	10	7	14	0.026
BBL more	2	4	4	8	6	12	
Amount	31	62	19	38	50	100	

Based on the table2 shows that out of 50 respondents, there were 27 low birth weight toddlers with bronchopneumonia (54.0%), 2 normal birth weight toddlers (4.0%) and 2 overweight toddlers (04.0%). The chi square test obtained a p value of 0.026 so that the p value <0.05. This means that there is a significant relationship between birth weight and the incidence of bronchopneumonia in toddlers at RSU DR.H. Yuliddin Away Tapaktuan.

Table 3. Relationship between history of breastfeeding in toddlers and incidence of bronchopneumonia (N=50)

Breastfeeding history	Diagnosis				Total		p value
	Pneumonia		Not Pneumonia				
	n	**%**	**n**	**%**	**n**	**%**	
Exclusive Breastfeeding	7	14	10	20	17	34	0.029
Not Exclusive Breastfeeding	24	48	9	18	33	66	
Amount	31	62	19	38	50	100	

Based on table 3, it shows that out of 50 respondents, it is known that 7 toddlers who received exclusive breastfeeding experienced bronchopneumonia (14.0%), and 24 toddlers who did not receive exclusive breastfeeding experienced bronchopneumonia (48.0%). After conducting the chi square test, the p value was 0.029, p value <0.05. In conclusion, there is a significant relationship between the history of breastfeeding and the incidence of bronchopneumonia in toddlers at RSU DR.H. Yuliddin Away Tapaktuan.

Table 4. Relationship between nutritional status in toddlers and the incidence of bronchopneumonia (N=50)

Nutritional status	Diagnosis				Total		p value
	Pneumonia		Not Pneumonia				
	n	**%**	**n**	**%**	**n**	**%**	
Malnutrition	24	48	8	16	32	64	0.018
Malnutrition	1	2	0	0	1	2	
Good nutrition	6	12	11	22	17	34	
Amount	31	62	19	38	50	100	

Based on table 4, out of 50 respondents, it is known that more toddlers with poor nutritional status experienced bronchopneumonia, namely 24 people (48.0%), 1 person with malnutrition (2%) and 6 people with good nutrition (12%). The chi square test p value is 0.018 <0.05. This means that there is a significant relationship between the nutritional status of toddlers and the incidence of bronchopneumonia at RSU DR.H. Yuliddin Away Tapaktuan.

Table 5. The Relationship between Immunization in Toddlers and the Incidence of Bronchopneumonia (N=50)

Immunization History	Diagnosis				Total		p value
	Pneumonia		Not Pneumonia				
	n	**%**	**n**	**%**	**n**	**%**	
Complete immunization	13	26	11	22	24	48	0.273
Incomplete Immunization	18	36	8	16	26	52	
Amount	31	62	19	38	50	100	

Based on table 5, it shows that out of 50 respondents, it is known that toddlers with complete immunization experienced bronchopneumonia 13 people (26.0%), while toddlers with incomplete immunization experienced bronchopneumonia 18 people (36.0%). After the chi square test, the p value was 0.273> 0.05. In conclusion, there is no significant relationship between immunization history and the incidence of bronchopneumonia in toddlers at RSU DR.H. Yuliddin Away Tapaktuan.

5. DISCUSSION

a. The relationship between toddler gender and the incidence of Bronchopneumonia at DR. H. Yuliddin Away Tapaktuan Regional Hospital.

The results of this study obtained the majority of male toddlers who experienced bronchopneumonia, namely 20 people (40%) compared to female toddlers as many as 11 people (22%). The results of the chi-square test showed (p value = 0.405> 0.05) meaning that it can be concluded that there is no relationship between gender and the incidence of bronchopneumonia in the children's room of DR. H. Yuliddin Away Tapaktuan Regional Hospital.

This study is in line with Sinaga's (2015) study which stated that there was no relationship between toddler gender and the incidence of bronchial pneumonia, where the results were significant with a 95% confidence level p value = 0.787 (>0.05).

The results of this study are also supported by research by Qurrota A'yuni et al. (2022), the results of the analysis using the Chi-Square test stated that there was no significant relationship between gender and the incidence of pneumonia in

toddlers (P value 1,000).

According to Yanti & Sari (2018), there is generally no difference in the incidence of respiratory tract infections caused by viruses or bacteria in men and women. This is due to a shift in children's habits. Currently, both men and women have the same tendency in terms of playing. In this decade, children play more often indoors with existing facilities than outdoors.

According to Sukamawa (in Nora et al., 2018) stated that there is no relationship between gender and the incidence of respiratory tract infections. Respiratory tract infections are diseases experienced by everyone regardless of ethnicity, race, religion, age, gender, and social status.

The researcher's assumption is that Bronchopneumonia can attack both male and female toddlers at any time and anywhere, because there is no difference between male and female toddlers in terms of their susceptibility to infectious diseases, one of which is Bronchopneumonia.

b. The Relationship Between Birth Weight of Toddlers and the Incidence of Bronchopneumonia in Dr. H. Yuliddin Away Regional Hospital, Tapaktuan.

In this study, the results showed that more low birth weight toddlers experienced bronchopneumonia, namely 27 people (54.0%). The chi square test obtained a p value of 0.026 so that the p value <0.05. In conclusion, there is a significant relationship between birth weight and the incidence of bronchopneumonia in toddlers at RSU DR.H. Yuliddin Away Tapaktuan.

This study is in line with the research of Junaidi et al. (2022), at the Padang Health Center. After conducting a chi square test with a p-value of 0.000 <0.05, it shows that there is a significant relationship between LBW and being a risk factor for pneumonia in toddlers. The results of this study are also supported by Nickontara (2023) at Praya Regional Hospital, based on bivariate analysis of 253 samples, the Chi-square results obtained a p-value = 0.001 indicating that there is a significant relationship between low birth weight and the incidence of pneumonia in toddlers.

Birth weight determines growth, physical and mental development during toddlerhood. The weight of a newborn is said to be normal if the newborn weighs 2,500 - 3,500 grams, while what is said to be Low Birth Weight (LBW) is a newborn weighing less than 2,500 grams. Babies with LBW tend to increase cases of malnutrition which results in a decrease in the toddler's immune system and easy respiratory infections such as pneumonia (Suryadinata, AS, 2020).

According to the Ministry of Health (2022), Low Birth Weight (LBW) will cause physical development disorders, stunted growth and mental development which will have an impact in the future.

Babies who have low birth weight in the first month of birth are susceptible to infection with Bronchopneumonia and other respiratory infections because the formation of active substances for the immune system is still imperfect (Yuliana, 2021).

According to the researcher's assumption, babies with LBW have a greater risk of morbidity when compared to babies with normal birth weight. Babies with LBW are more susceptible to infectious diseases, especially Bronchopneumonia.

c. The Relationship between Exclusive Breastfeeding History and the Incidence of Bronchopneumonia in Toddlers at DR. H. Yuliddin Away Tapaktuan Regional Hospital.

In this study, the results obtained were that**toddlers who did not receive exclusive breastfeeding experienced bronchopneumonia as many as 24 people (48.0%). The chi-square test showed p = 0.029 so that the p value <0.05. In conclusion, there is a significant relationship between the history of breastfeeding and the incidence of bronchopneumonia in toddlers at RSU DR.H. Yuliddin Away Tapaktuan.**

The results of this study are in line with Afriani's research (2021), the statistical test obtained a p value of 0.001. This means that there is a significant relationship between exclusive breastfeeding and the incidence of pneumonia in infants.

This study is also supported by Handrayani's research (2022), the results of the study on the relationship between exclusive breastfeeding and pneumonia obtained a p value of 0.036 <0.05. There is a significant relationship between exclusive breastfeeding and pneumonia at Sinjai Regional Hospital.

According to the Indonesian Ministry of Health (2019),Breast milk is milk produced by humans for consumption by babies and is the main source of nutrition for babies who cannot digest solid food. The first breast milk that comes out is called colostrum and contains immunoglobulin IgA which is good for the baby's body's defense against disease.

Optimal breastfeeding including exclusive breastfeeding for the first 6 months of life and further up to 24 months of age is very important in reducing cases

of pneumonia in infants and children. Various immunological components in breast milk can help prevent pneumonia caused by infection. These components not only play a direct role in fighting infection, but also increase the immune response in children (Saunders, 2017).

According to researchers' assumptions, to prevent pneumonia, babies should be given exclusive breastfeeding as early as possible because the immunity of toddlers also depends on the length of time they are given breastfeeding.

d. The Relationship between Nutritional Status of Toddlers and the Incidence of Bronchopneumonia at DR. H. Yuliddin Away Tapaktuan Regional Hospital.

In this study, the results showed that toddlers with poor nutritional status experienced bronchopneumonia incidents totaling 24 people (48.0%). The result p = 0.018 <0.05. In conclusion, there is a significant relationship between nutritional status and the incidence of bronchopneumonia in toddlers at RSU DR.H. Yuliddin Away Tapaktuan.

Previous research by Salsabila (2019) stated that there was a significant relationship between nutritional status based on body weight index for age (BW/A) and bronchopneumonia at Dr. H. Abdul Moeloek Regional General Hospital with a p value = 0.00 (p value <0.05).

The results of this study are also supported by Handrayani's research (2022), the results of her study showed that there was an influence of nutritional status on the incidence of Bronchopneumonia in children at Labuang Baji Hospital (p = 0.000).

Based on the theory, nutritional status is a measure of success in fulfilling nutrition for children, which is indicated by the child's weight and height/age. The relationship between nutritional status and pneumonia in toddlers is closely related, because if the nutritional status of toddlers is considered lacking or even bad, it is indicated as malnutrition and in the long term this will cause impaired mechanical defense and low immunity, causing toddlers to be susceptible to mild to severe pneumonia (Amru, et all, 2021).

Malnourished children have a low immune system so they are susceptible to infectious diseases such as diarrhea, coughs, colds, and pneumonia. Wasting toddlers (undernutrition and poor nutrition) if they suffer from infectious diseases, their condition can be more severe and more difficult to cure than well-nourished children (UNICEF, 2023).

According to the researcher's assumption, toddlers with good nutritional status who experience Bronchopneumonia have a small percentage, this is likely due to good immunity. Toddlers who receive good nutritional care, namely getting enough good and balanced food, their immunity can be good, so that children are not easily attacked by infections and their weight can be maintained.

e. The Relationship between Toddler Immunization History and the Incidence of Bronchopneumonia at DR. H. Yuliddin Away Tapaktuan Regional Hospital.

In this study, it was found that toddlers who were not fully immunized experienced bronchopneumonia as many as 18 people (36.0%). The result p = 0.273 > 0.05. In conclusion, there is no significant relationship between immunization history and the incidence of bronchopneumonia in toddlers at RSU DR.H. Yuliddin Away Tapaktuan.

This study is in line with research conducted by Rina (2020) in Banjarmasin that there is no significant relationship between basic immunization and the incidence of pneumonia with a valuep value 0.330.

The results of this study are also supported by Lailla Z's (2020) research in the children's room of RSUZA Banda Aceh, from the statistical analysis it was found that there was no relationship between complete basic immunization and the incidence of pneumonia in toddlers at RSUZA Banda Aceh (p = 0.807).

According to Ranuh et al (2017), immunization is a way to increase a person's immunity to a disease by providing a mild infection that is not dangerous but enough to prepare an immune response so that if exposed he does not become sick. While the vaccine is a material used to stimulate the formation of anti-substances that are inserted into the body through injections such as BCG, DPT, Measles, and through the mouth such as polio.

Basic immunization currently available in Indonesia does not specifically prevent pneumonia, some available vaccines are only to prevent complications of the disease leading to pneumonia, such as measles. Complete basic immunization alone is not enough to provide protection against PD3I (Immunization-preventable diseases) because some antigens require large or additional doses at the age of 18 months, school age and adulthood (KEMENKES, 2022).

According to the researcher's assumption, toddlers who receive basic but incomplete immunization are likely to be easily exposed to diseases that are easily

spread such as Bronchopneumonia. Meanwhile, immunization itself cannot prevent the entry of germs into the body, but if toddlers receive complete immunization, it is hoped that the development of the disease will not be more severe.

6. CONCLUSION

Based on the results of the research that has been conducted, the researcher drew the following conclusions:

a. There is no relationship between the gender of toddlers and the incidence of bronchopneumonia in the children's room of DR. H. Yuliddin Away Tapaktuan General Hospital, with the significance value in the results showing ($p = 0.405 > 0.05$).
b. There is a relationship between the birth weight of toddlers and the incidence of bronchopneumonia in the pediatric ward of DR. H. Yuliddin Away Tapaktuan General Hospital, with the significance value in the results showing ($p = 0.026 <0.05$).
c. There is a relationship between the history of exclusive breastfeeding of toddlers and the incidence of bronchopneumonia in the pediatric ward of DR. H. Yuliddin Away Tapaktuan General Hospital, with a significance value in the results showing ($p = 0.029 <0.05$).
d. There is a relationship between the nutritional status of toddlers and the incidence of bronchopneumonia in the children's room of DR. H. Yuliddin Away Tapaktuan General Hospital, with a significance value in the results showing ($p = 0.018 <0.05$).
e. There is no relationship between the history of toddler immunization and the incidence of bronchopneumonia in the pediatric ward of DR. H. Yuliddin Away Tapaktuan General Hospital, with the significance value in the results showing ($p = 0.273 > 0.05$).

7. SUGGESTION

a. The results of this study can provide knowledge, experience and real impact for researchers and can apply the knowledge that has been obtained in everyday life, also as a reference for providing health education or counseling to patient families regarding bronchopneumonia and its prevention.
b. The results of this study can be used as input for the institution of DR. H. Yuliddin Away Tapaktuan General Hospital. It is expected that health workers, especially

nurses, continue to promote health education to mothers of toddlers in the hospital on how to handle (treat) and prevent Bronchopneumonia.

c. The results of this study can provide input and education for parents/families so that they can add information or insight into knowledge of bronchopneumonia in toddlers.

d. The results of this study can be used as reference material for studies on the characteristics of toddlers with bronchopneumonia who are treated in hospitals.

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