

Factors related to the incidence of pneumonia in toddlers at the Padang Guci Community Health Center, Kaur District, in 2022

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ABSTRACT

Pneumonia is an acute infection caused by microorganisms such as viruses, fungi and bacteria. Microorganisms will then attack the lung tissue (alveoli). According to (WHO, 2020) pneumonia killed 740,180 children under the age of 5 years in 2019, accounting for 14% of all deaths in children under five years but 22% of all deaths in children aged 1 to 5 years. Pneumonia is the second cause of death after diarrhea in Indonesia. Patients with pneumonia under five in Indonesia in 2017 reached 447,431 cases (46.34%) and caused 1,351 deaths in under five (Ministry of Health RI, 2018). According to the 2018 Basic Health Research (Riskesdas), in 2013 in Bengkulu the prevalence of Pneumonia based on a NAKES diagnosis was 1.1% or around 45.3 thousand people and in 2018 it was 1.7% or around 70.0 thousand people. The Kaur District Health Office reported that the incidence of pneumonia in Kaur District in 2021 was 1,167 cases (Lap. ARI P2 Program of the Kaur District Health Office 2021). This study used a quantitative method with a cross-sectional research design. The population in this study were all mothers who had toddlers visiting the Padang Guci Health Center in Kaur District in 2022 from January to May with a total of 210. The sample used in this study was 68 respondents. The results of this study indicate that there is a relationship between the level of mother's knowledge and the incidence of pneumonia in toddlers at the Padang Guci Health Center in Kaur District in 2022, there is a relationship between the mother's attitude and the incidence of pneumonia in toddlers at the Padang Guci Health Center in Kaur District in 2022 and the relationship between mother's education and the incidence of pneumonia in toddlers in Padang Guci Health Center, Kaur District, in 2022. Suggestions can examine other risk factors that have not been identified and for the health center to provide education to mothers about the incidence of pneumonia, such as playing a video in the patient waiting room at the health center.:

INTRODUCTION

Pneumonia is an acute infection caused by microorganisms such as viruses, fungi and bacteria. Microorganisms will then attack the lung tissue (alveoli). Streptococcus and Mycoplasma pneumoniae are bacteria that cause pneumonia. In addition, Adenoviruses, Rhinoviruses, Influenza viruses, Respiratory syncytial viruses (RSV) and Parainfluenza viruses are types of viruses that cause pneumonia (Anwar and Dharmayanti, 2014).

Pneumonia is an inflammation of the lungs caused by bacteria, viruses and fungi that are found everywhere so that they can cause fever, runny nose, cough, shortness of breath and when the immunity of infants and toddlers is low, lung function will be disrupted while the immunity level of infants and toddlers is low due to smoke. cigarettes, smoke/dust in the house damages the airways, breast milk is little/only for a short time, malnutrition, incomplete immunization, low birth weight, chronic diseases and others (Ministry of Health of the Republic of Indonesia, 2020).

According to (WHO, 2020) pneumonia killed 740,180 children under the age of 5 years in 2019, accounting for 14% of all deaths in children under five years but 22% of all deaths in children aged 1 to 5 years. The World Health Organization states that pneumonia is the highest cause of death in toddlers, surpassing other diseases such as measles, malaria and dad aids. Pneumonia cases often occur in developing countries such as Southeast Asia by 39% and Africa by 30%. WHO said that Indonesia is ranked 8th in the world out of 15 countries with under-five and child mortality rates caused by pneumonia

Pneumonia is the second cause of death after diarrhea in Indonesia. Patients with pneumonia under five in Indonesia in 2017 reached 447,431 cases (46.34%) and caused 1,351 deaths in under five (Ministry of Health RI, 2018). According to the 2018 Basic Health Research (Riskesdas), in 2013 in Bengkulu the prevalence of Pneumonia based on a NAKES diagnosis was 1.1% or around 45.3 thousand people and in 2018 it was 1.7% or around 70.0 thousand people, while prevalence of pneumonia based on NAKES diagnosis and symptoms in 2103 in Bengkulu amounted to 3.9% or around 160.0 thousand people and in 2018 5% around 205.9 thousand people who had pneumonia based on NAKES diagnosis and symptoms (Ministry of Health, 2018)

Pneumonia is the cause of 16% of under-five deaths, which is estimated at 920,136 under-fives in 2015 (Ministry of Health of the Republic of Indonesia, 2016). Over a long period of time, the coverage

rate for toddlers with pneumonia did not experience significant development, ranging from 20% -30%. Since 2015 until now there has been an increase in coverage due to a change in the estimated number of cases from 10% to 3.55%, in addition there has been an increase in the completeness of reporting from 94.12% in 2016 to 100% in 2019. In 2019 only the Province West Papua and DKI have achieved the detection target of 80, even exceeding the target set by the program, while Papua has only achieved 0.2% of pneumonia detections from the set target. In 2019 the mortality rate due to pneumonia in toddlers was 0.12%. The mortality rate due to pneumonia in the infant group was almost double that in the 1-4 year old group with the highest number of discoveries in the province of West Java, with 104,866 (47.2%) (Ministry of Health of the Republic of Indonesia, 2019).

The Kaur District Health Office reported that the incidence of pneumonia in Kaur District in 2019 ranked first out of the top 10 diseases in Kaur District, namely reaching 724 cases of pneumonia, in 2020 there were 875 cases while in 2021 there were 1,167 cases (Lap. ISPA P2 Program Kaur District Health Office 2021). Data on the most cases of pneumonia in 2021, namely at the Padang Guci Health Center as many as 263 cases, including 141 male and 122 female cases, Kelam Tengah Health Center as many as 136 cases, including 73 men and 65 women, Linau Health Center as many as 130 cases, including 66 men and 62 women (DinKes Kab. Kaur, 2021).

The high incidence of pneumonia in toddlers is caused by several factors, including intrinsic and extrinsic factors. Intrinsic factors include age, gender, nutritional status, exclusive breastfeeding status, immunization status. While extrinsic factors include the physical conditions of the home environment, including occupancy density, air pollution, type of house, ventilation, cigarette smoke, fuel use, as well as behavioral factors, both knowledge and attitudes of the mother (Castanea, 2018).

Meanwhile, the attitude factor according to Notoatmodjo (2010) is a person's closed response to a particular stimulus or object, which already involves the opinion and emotion factors concerned (happy-unhappy, agree-disagree, good-not good, and so on). Mothers who have a negative attitude about pneumonia mean that they do not support the mother's practice of treating pneumonia in toddlers, so that it can cause pneumonia to be continuously experienced by toddlers. But if the mother has a positive attitude in managing pneumonia and preventing pneumonia, then the morbidity rate in toddlers can be minimized, because the mother always tries to keep the environment clean.

The factor of low mother's education also has an important role in relation to the incidence of pneumonia in toddlers, because mothers experience difficulties in receiving the information provided about pneumonia suffered by toddlers. High education can make it easier for someone to accept something new, the higher one's education the more mature in acting

The results of initial observations made at the Padang Guci Health Center regarding the knowledge and attitudes of mothers with the incidence of pneumonia in toddlers turned out that out of the 10 mothers we asked, 8 mothers of toddlers still had knowledge and attitudes that did not fully understand pneumonia and what factors were associated with the disease. pneumonia in general. This is because the surrounding community feels that pneumonia is just a disease that usually occurs in toddlers.

RESEARCH METHODS

This type of research is analytic with a cross-sectional research design, namely a study to study the dynamics of the correlation between risk factors and effects, by way of approach, observation or data collection at one time (point time approach).

Data analysis was carried out, namely managing data in a form that is easier to read and interpret and can be tested statistically, the correctness of the hypotheses that have been set. Data analysis was carried out in stages, namely univariate and bivariate analysis.

RESULTS

Univariate analysis

Univariate analysis in this study was to see the frequency distribution of levels of knowledge, attitudes and mother's education and the incidence of pneumonia, which can be seen in full in the following table:

Table 1 Frequency Distribution of Knowledge Levels of Mothers at the Padang Guci Health Center, Kaur District in 2022.

No	Knowledge	Frequency (n)	Percentage (%)
1	Not enough	33	48,5
2	Enough	21	30,9
3	Well	14	20,6
Amount		68	100,0

Based on table 1 shows that almost half of the respondents 33 (48.5%) have less knowledge.

Table 2 Frequency Distribution of Mother's Attitudes at the Padang Guci Health Center, Kaur District in 2022.

No	Attitude	Frequency (n)	Percentage (%)
1	Unfavorable	39	57,4
2	favorable	29	42,6
Amount		68	100,0

Based on table 2 above, it shows that more than 39 respondents (57.4%) have an unfavorable attitude.

Table 3 Distribution of the Frequency of Mother's Education at the Padang Guci Health Center in Kaur District in 2022.

No	Education	Frequency (n)	Percentage (%)
1	Base	32	47,1
2	Intermediate	22	32,4
3	Tall	14	20,6
Amount		68	100,0

Based on table 3 shows that some respondents 32 (47.1%) have low education.

Table 4. Frequency Distribution of Pneumonia in Toddlers at the Padang Guci Health Center, Kaur District, in 2022.

No	Pneumonia incident	Frequency (n)	Percentage (%)
1	Pneumonia	35	51,5
2	No Pneumonia	33	48,5
Amount		68	100,0

Based on table 4 shows that more than 35 respondents (51.5%) experienced pneumonia

DISCUSSION

Frequency distribution of mother's level of knowledge at the Padang Guci Health Center, Kaur District in 2022.

The results showed that almost half of the respondents 33 (48.5%) had less knowledge. This can be seen from the answers of respondents who did not know the dangers of pneumonia in toddlers such as pneumonia can cause death in children under five and pneumonia is prone to attack toddlers.

Knowledge is a process of forming behavior that is fulfilled by respondents, for example someone knows about something then he will realize its benefits, it will influence the behavior that appears at that time, and in everyday life the respondent behaves positively (Mubarok, 2015).

Results of Tania Sitorus Pane's research, 2021 with the title Picture of Mother's Knowledge About Pneumonia Treatment in Children Aged 1-5 Years 2021. The research results found that out of a total of 80 respondents 43 people had insufficient knowledge (53.75%), 35 people have sufficient knowledge (43.75%), and 2 people have good knowledge (2.50%)

Frequency distribution of mother's attitudes at the Padang Guci Health Center, Kaur District, in 2022.

The results showed that more than 39 respondents (57.4%) had an unfavorable attitude. This can be seen from the answers of respondents who pay less attention to the home environment and personal hygiene. For example, the respondent rarely opens the windows of the house and there are still family members who smoke in the house.

Attitude towards health is a person's opinion or evaluation of matters related to health maintenance such as attitudes towards communicable and non-communicable diseases, attitudes towards factors related to and/or affecting health, attitudes about health service facilities, and attitudes towards avoiding accidents (Andriani, 2019).

Attitude consists of two namely positive attitude and negative attitude. A positive attitude is an attitude that is in accordance with the prevailing health values, while a negative attitude is an attitude that is not in accordance with the prevailing health values. The positive attitude here is that parents are right in their attitude about what things should be done when a toddler is sick and how to prevent it. While negative attitudes, parents are not correct in their attitude about what things should be done when toddlers are sick and how to prevent them (Notoatmodjo, 2012).

Unaidi, et al 2021 research results with the title Factors Associated with the Incidence of Pneumonia in Children Aged 12-59 Months in the Working Area of the Padang Rubek Health Center, Nagan Raya Regency, 2021. The results of the study found that bad attitudes with recurrent pneumonia incidence were 94.3% and the first 5.7%. Good attitude with recurrent pneumonia 4.7% and 95.3% first.

Distribution of the frequency of mother's education at the Padang Guci Health Center, Kaur District, in 2022.

The results showed that some of the respondents 32 (47.1%) had low education. This can be seen from the answers of respondents who stated that their education was elementary and junior high.

Education affects the learning process, the higher a person's education the easier it is for that person to receive information, with higher education a person will tend to get information, both from other people, the mass media and from health education. Health education is essentially an activity or effort to delivering health messages to communities, groups or individuals. With the hope that with this message the public can gain better knowledge about health. Therefore the level of education can correlate with the person's level of knowledge (Notoatmodjo, 2012). The more information that comes in, the more knowledge is gained, especially about health. Knowledge is very closely related to education where it is hoped that someone with higher education, the person will have more extensive knowledge.

The results of Unaidi's research, et al 2021 with the title Factors Associated with the Incidence of Pneumonia in Children Aged 12-59 Months in the Working Area of the Padang Rubek Community Health Center, Nagan Raya Regency in 2021. The results showed that the education of elementary school mothers with the incidence of recurrent pneumonia was 22.7% and the first 77.2%. Middle school mother's education with the incidence of recurrent pneumonia 44.8% and 55.2% first. Mother's education is high school with the incidence of recurrent pneumonia 54.8% and 42.2% first. Mother's education Higher education with the incidence of recurrent pneumonia 83.3% and first 16.7%

Distribution of the Frequency of Pneumonia in Toddlers at the Padang Guci Health Center, Kaur District in 2022.

The results showed that more than 35 respondents (51.5%) had pneumonia. This can be seen from the answers of respondents who did not understand that pneumonia is an infectious disease which is generally caused by the environment such as air pollution and cigarette smoke.

Pneumonia is an inflammation that affects the lung parenchyma, distal to the terminal bronchioles which includes the respiratory bronchioles and alveoli, and causes consolidation of lung tissue and local gas disturbances. (Sari & Cahyati, 2019). Pneumonia is an infection of the lung tissue (alveoli) that is acute. The causes are bacteria, viruses, fungi, exposure to chemicals or physical damage from the lungs, as well as the indirect effects of other diseases. Bacteria that commonly cause pneumonia are streptococcus and mycoplasma pneumonia, while viruses that cause pneumonia are adenoviruses, rhinoviruses, influenza viruses, respiratory syncytial virus (RSV) and para influenza viruses. (Anwar & Dharmayanti, 2014)

Research conducted by Susi, et al (2022) with the title The Relationship between Mother's Attitude and the Incidence of Pneumonia in Children Aged 12-59 Months in the Working Area of the Padang Rubek Health Center, Nagan Regency. The results of the incidence of pneumonia were obtained from 75 toddlers (54.3%).

CONCLUSIONS AND RECOMMENDATIONS

1. Almost half of the 33 respondents (48.5%) have insufficient knowledge at the Padang Guci Health Center, Kaur District, in 2022.
2. More than half of the respondents 39 (57.4%) have an unfavorable attitude at the Padang Guci Health Center in Kaur Regency in 2022.
3. Some of the respondents 32 (47.1%) have low education at the Padang Guci Health Center, Kaur District, in 2022.
4. More than 35 respondents (51.5%) experienced pneumonia at the Padang Guci Health Center, Kaur District, in 2022
5. There is a relationship between the level of mother's knowledge and the incidence of pneumonia in toddlers at the Padang Guci Health Center, Kaur District, in 2022
6. There is a relationship between the mother's attitude and the incidence of pneumonia in toddlers at the Padang Guci Health Center, Kaur District, in 2022
7. There is a relationship between mother's education and the incidence of pneumonia in toddlers at the Padang Guci Health Center, Kaur District, in 2022

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