

Factors Related To The Incident of ISPA in Toddler at PMB Endang Sulastrri Year 2021

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Abstract

Upper Respiratory Tract Infection (ARI) is an infectious disease that attacks one or more parts of the respiratory tract, starting from the nose, which is characterized by symptoms of coughing, shortness of breath and can also cause fever. ISPA in Indonesia in 2021 as many as 38.8% experienced ISPA, ISPA is the most common disease every year. The incidence of ISPA in Singkawang City in 2021 was 11.79% and there were 140 children under five with ISPA in PMB Endang Sulastrri. The aim of this research is to analyze the relationship between knowledge, education and income with the incidence of ISPA in toddlers at PMB Endang Sulastrri in 2021. This research uses an analytical design with a cross sectional approach. The sample in this study amounted to 140 people with the sampling technique used was total sampling, data collection using questionnaires and checklist sheets. Data analysis used the chi-square test. The results of this study show that there is a relationship between knowledge and the incidence of ISPA p-value = 0.045 (p-value < 0.05) and there is a relationship between education and the incidence of ISPA p-value = 0.043 (p-value < 0.05) and there is a relationship between income and the incidence of ARI p-value = 0.007 (p-value < 0.05)..

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INTRODUCTION

Infection Upper Respiratory Tract (ARI) is an infectious disease that attacks one or more parts of the respiratory tract, starting from the nose, which is characterized by symptoms of coughing, shortness of breath and can also cause fever. Factors related to the incidence of ISPA, for example, environmental factors are air pollution in the house, where cigarette smoke and mosquito coil smoke which cause high concentrations can damage the lung defense mechanism so that ISPA will easily occur, this is more possible because babies and toddlers stay longer. at home with his mother so pollution is of course higher (Usman, 2016).

ISPA in Indonesia in 2014 - 2016 recently ranked first as the cause of death for children under five, namely in 2014 it was 32.1%, then in 2015 it was 18.2% and in 2016 it was 38.8%. Apart from that, ISPA is often on the list. 10 most common diseases. Based on data from the ISPA disease control (P2) program, the coverage of sufferers exceeded the target of 16,534, namely 18,749 cases, 13.4% (Ministry of Health of the Republic of

Indonesia, 2017). Based on data from the 2017 ISPA Sub-Directorate Routine Report, it was found that 20.54% of ISPA cases occurred in Indonesia per 1000 children under five who experienced ISPA. (West Kalimantan Provincial Health Service, 2017). ISPA in Singkawang City has been the most common disease for many years. In 2013 cases of ISPA reached 13.18% then in 2014 it was 13.18% and in 2015 it reached 13.34% then in 2016 it reached 9.17% and in 2017 it increased to 11.79% who experienced ISPA (Singkawang City Health Service, 2017).

Risk factors related to the occurrence of ARI are divided into intrinsic factors and extrinsic factors. Intrinsic factors include age, gender, nutritional status, low birth weight (LBW) and immunization status, giving breast milk (ASI) and giving vitamins. Extrinsic factors include socio-economic factors, residential density, air pollution, ventilation, cigarette smoke, use of mosquito coils (environmental factors) as well as maternal factors, namely education, age and knowledge of the mother and socio-economics (MOH RI, 2014).

The incidence of ISPA is closely related to parents' knowledge about ISPA, because parents are the main person responsible for maintaining children's welfare. In childhood, they are still very dependent on their parents. Mothers have a very important role in efforts to improve their children's health. Mother's knowledge regarding ISPA is very necessary. Mother's knowledge is very good. Mothers can act appropriately in dealing with ISPA suffered by their children because it is very necessary to disseminate information to parents about ISPA so that parents can respond early to all matters related to ISPA. (Wahyuti, 2011).

Parental education greatly influences the incidence of ISPA because the lower the parent's education regarding ISPA suffered by their children. ISPA tends to be higher in groups with lower education and lower levels of per capita expenditure (MOH RI, 2008). This is supported by Rahmayatul Fillacano's research in Ciputat Village, Tangerang City in 2013, that parents with low education had a 2.8 times higher risk of toddlers experiencing ISPA compared to parents with higher education.

Socioeconomic can measure a family's social economy, one of which is family income, with a lack of family income it is difficult to meet basic needs that support the family's living needs. Low socio-economic conditions are generally closely related to various health problems faced, this is due to inability and not knowing how to deal with problems, including ISPA which often occurs among the community. A good family income will have an influence on maintaining cleanliness and handling which in turn plays a role in prioritizing the provision of health facilities based on a family's income capacity (Ministry of Health of the Republic of Indonesia, 2014).

Based on the results of a preliminary study that researchers conducted at PMB Endang Sulastris on May 20 2021 on 10 mothers who have toddlers through interviews. From the results of the interviews, around 50% of the mothers had little knowledge about ISPA and had low education and low income, while around 30% of the mothers had sufficient knowledge about ISPA. ISPA has high education and low income and 20% of mothers with good knowledge about ISPA have high education and high income.

Based on this description, researchers are interested in conducting research on "Factors Associated with the incidence of ISPA in Toddlers at PMB Endang Sulastris in 2021.

METHOD

This research is an analytical observational research, namely research that attempts to find relationships between variables, then analyzes the relationship between the independent variables and the dependent variable using a cross sectional approach. Data collection was carried out from June 1 to August 2021. The population in this study was mothers with toddlers who visited PMB Endang Sulastris in June - August 2021, namely 140 people. The sampling technique used was a total sampling technique. In this study

the independent variables are knowledge, education and income while the dependent variable is the incidence of ARI. The measuring instruments in this research used questionnaires and checklist sheets. Univariate data analysis was used to determine the frequency distribution of the variables studied using score and percentage formulas and Bivariate analysis to determine the relationship between independent and dependent variables using the Chi Square statistical test.

RESULTS AND DISCUSSION

a. Univariate Analysis

1) Knowledge

From the results of research on the frequency distribution of respondents based on mothers' knowledge about ISPA in toddlers at PMB Endang Sulastrri in 2021:

Table 1 Frequency Distribution Based on Mother's Knowledge
About ARI in Toddlers at PMB Endang Sulastrri

Year 2021			
No	Knowledge	Frequency (N)	Percentage (%)
1	Good	28	20.0
2	Enough	55	39.3
3	Not enough	57	40.7
Total		140	100

Based on the table above, some respondents with less knowledge were 57 people (40.7%).

2) Education

From the results of research on the frequency distribution of respondents based on the education of mothers of toddlers at PMB Endang Sulastrri in 2021:

Table 2 Frequency Distribution Based on Education of Mothers of Toddlers in
PMB Endang Sulastrri

Year 2021			
No	Education	Frequency (N)	Percentage (%)
1	Tall	41	29.3
2	Low	99	70.7
Total		140	100

Based on the table above, the majority of respondents with low education amounted to 99 people (70.7%).

3) Income

From the results of research on the frequency distribution of respondents based on family income in PMB Endang Sulastrri in 2021:

Table 3 Frequency Distribution Based on Family Income
at PMB Endang Sulastrri in 2021

No	Income	Frequency (N)	Percentage (%)
1	Tall	29	20.7
2	Low	111	79.3
Total		140	100

Based on the table above, the majority of low income respondents were 111 people (79.3%).

4) ISPA

Based on the frequency distribution of ISPA incidents in toddlers in PMB Endang Sulastrri in 2021:

Table 4 Frequency Distribution of ISPA Events in Toddlers at PMB Endang Sulastrri in 2021

No	ISPA	Frequency (N)	Percentage (%)
1	Yes	54	38.6
2	No	86	61.4
	Total	140	100

Based on the table above, the small number of respondents who experienced ISPA in toddlers amounted to 54 people (38.6%).

b. Bivariate Analysis

1) The relationship between mother's knowledge and the incidence of ARI in toddlers

Table 5: Relationship between maternal knowledge and the incidence of acute respiratory infections in toddlers in the PMB Endang Sulastrri in 2021

No	Knowledge	ISPA				Total (N)		<i>P-Value</i>
		Yes		No		N	%	
		N	%	N	%			N
1	Good	9	32.1	19	69.9	28	100	<i>0.045</i>
2	Enough	16	29.1	39	70.9	55	100	
3	Not enough	29	50.9	28	49.1	57	100	
	Total	54	38.6	86	61.4	140	100	

Based on the table above, it shows that the number of respondents who had less knowledge and had toddlers who experienced ISPA was 29 people (50.9%). The results of the chi-square analysis showed $p\text{-value} = 0.045$ ($p\text{-value} < 0.05$), which means that H_a was accepted and H_o was rejected, so it can be concluded that there is a relationship between knowledge and the incidence of ISPA in toddlers at PMB Endang Sulastrri in 2021.

This shows that knowledge is closely related to ISPA, where a lack of knowledge can influence a person's behavior in a bad direction, such as how to prevent ISPA, for example not covering your mouth when coughing and sneezing, family smoking near toddlers, not using masks when leaving the house, and the condition of the house. those who are not clean, with this it can be applied in everyday life, they will care about how to prevent ISPA from occurring and recognize the signs of ISPA symptoms.

Knowledge is closely related to the incidence of ISPA, that a high level of knowledge can reduce the incidence of ISPA. This is in accordance with the theory put forward by Lawrence and Green which states that someone with a high level of knowledge will find it easier to absorb the health concepts they understand, so that person will have a higher level of awareness to change their behavior for the better than those who have less knowledge. low.

2) The relationship between education and the incidence of ISPA in toddlers

Table 6 Relationship between education and the incidence of ISPA in toddlers at PMB Endang Sulastrri in 2021

No	Education	ISPA				Total (N)		<i>P-Value</i>
		Yes		No		N	%	
		N	%	N	%			N
1	Tall	10	24.4	31	75.6	41	100	<i>0.043</i>
2	Low	44	44.4	55	55.6	99	100	
	Total	54	54.0	86	61.4	140	100	

Based on the table above, it shows that the number of respondents who had low education and had toddlers who experienced ISPA was 44 people (44.4%). Based on the results of the chi-square analysis, it was found that $p\text{-value} = 0.043$ ($p\text{-value} < 0.05$), which means H_a was accepted and H_o was rejected, so it can be concluded that there is a relationship between education and the incidence of ISPA in toddlers at PMB Endang Sulastrri in 2021. This shows that some of the respondents have low education. A person's level of education will determine their mindset, knowledge, insight and information, besides that, the level of education is also part of work experience. The higher a person's education, the more knowledge and skills are expected to increase. Through education, humans are thought to gain knowledge and information and the higher the education, the better the quality.

This research in linewith the theory according to Nasution (2010) that mothers with a low level of education are a factor in the occurrence of ISPA because they tend not to be aware of the early signs and symptoms of ISPA which causes delays in treatment, and can even cause serious complications such as pneumonia and others, However, if they always pay attention to their child's health condition and know the early symptoms, related factors, the emergence of ISPA, then the risk of contracting ISPA in their child will decrease (Hartono, 2012).

Education is an effort to develop personality and abilities inside and outside school and lasts a lifetime. Education influences 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 find it easier to get information, both from other people and from the mass media. The more information you receive, the more knowledge you gain about health. Knowledge is closely related to education, where it is hoped that with higher education, that person will have broader knowledge.

3) The relationship between family income and the incidence of ISPA in children under five

Table 4.7 Relationship between family income and the incidence of ARI in toddlers at PMB Endang Sulastrri in 2021

No	Income	ISPA				Total (N)		<i>P-Value</i>
		Yes		No		N	%	
		N	%	N	%			
1	Tall	18	62.1	11	37.9	29	100	<i>0.007</i>
2	Low	36	42.8	75	67.6	111	100	
	Total	54	38.6	86	61.4	140	100	

Based on the table above, it shows that 36 of the respondents who had low incomes and had toddlers experienced ISPA (42.8%). The results of the chi-square analysis obtained $p\text{-value} = 0.007$ ($p\text{-value} < 0.05$), which means that H_a was accepted and H_o was rejected, so it can be concluded that there is a relationship between income and the incidence of ISPA in toddlers at PMB Endang Sulastrri in 2021.

This shows that families with low incomes have low health awareness, because they feel that if they get sick, treatment costs will be expensive. Low income is one of the obstacles because with a low income the family always does not pay attention to their living needs and the diet they consume daily, so on the other hand, with a high income the family pays attention to the diet they consume and the necessities they need for daily life so that the possibility of experiencing ISPA can be reduced than before.

This research is in line with the theory according to Sinclair (2010) that Income is a factor that determines the quality and quantity of a family's health. Income is usually in the form of money which influences a person's ability to meet their living needs. Low income is an obstacle that causes a person to be unable to provide health facilities according to their

needs, but this does not mean that low income does not mean that they do not have good health and prevention can be done so that undesirable things do not happen and require unexpected expenses (Sinclair, 2010).

The results of this research are in line with research conducted by Yunita (2017) with a p-value of 0.001 (p-value < 0.05) which means there is a relationship between income and the incidence of ISPA, this is due to daily needs and health. more increasing.

CONCLUSION

Based on the results of univariate and bivariate analysis of research regarding factors related to the incidence of ARI in PMB Endang Sulastri, then the researchers concluded as follows:

1. There is a relationship between knowledge and the incidence of ISPA, p-value = 0.027 (p-value < 0.05), meaning H_a is accepted and H_o is rejected.
2. There is a relationship between education and the incidence of ISPA, p-value = 0.043 (p-value < 0.05), meaning H_a is accepted and H_o is rejected.
3. There is a relationship between family income and the incidence of ISPA, p-value = 0.007 (p-value < 0.05), meaning H_a is accepted and H_o is rejected.

REFERENCES

- Ministry of Health of the Republic of Indonesia. . 2014. Guidelines for Controlling Acute Respiratory Tract Infections. Jakarta: Director General of Environmental Health Disease Control.
- Singkawang City Health Department. 2017. Profile of the Singkawang City Health Service. Singkawang: Singkawang City Health Service.
- Singkawang City Health Department. 2018. Profile of the Singkawang City Health Service Singkawang: Singkawang City Health Service.
- Fillacano, R. 2013. The Relationship between the Home Environment and ISPA in Toddlers in Ciputat Village, South Tangerang City, 2013. Thesis. Jakarta: Syarif Hidayatullah State Islamic University Jakarta.
- Hartono, R. 2012. ISPA. Yogyakarta: Nuha Medika.
- Irsan, A. 2010. Factors Associated with the Incidence of ISPA Disease in Children Under Five in the Working Area of the Manipi Health Center, Sinjai Baraktab District in 2010. (<http://repository.uin-alauddin.ac.id>)
- Nasution. 2010. Factors related to ISPA. (<http://ojs.unud.ac.id/index.php/eum>)
- Sinclair. 2010. Factors related to ISPA. (<http://ojs.unud.ac.id/index.php/eum>)
- Yunita, B 2017. Relationship between family function and ISPA. (<http://www.eprints.ums.AC ID>). Accessed 16 August 2019.