Journal Of Nursing Practice
https://thejnp.org/
ISSN: 2614-3488 (print); 2614-3496 (online) Vol.8 No.1. October 2024. Page.197-206

Factors Influencing the Incident of Acute Respiratory Tract Infections in Children Aged 12-59 Months in Wallandimu East Nusa Tenggara

Novita Ana Anggraini[1*], Rahmania Ambarika[2], Natalia Ningsi Katupu[3]
[1,2,3] *Universitas STRADA Indonesia*
**Corresponding author: phitphita@gmail.com*

ABSTRACT

Background: Acute Respiratory Infection Disease is one of the highest causes of morbidity and mortality in children under five in Indonesia, especially in East Nusa Tenggara. The implementation of the ISPA disease control program focuses on finding and treating sufferers as early as possible by involving the active role of cadres, integrated health service support and referrals to related health facilities, however, these control efforts have not shown significant results.
Purpose: The aim of this study was to determine the factors that influence the incidence of Acute Respiratory Infection Disease in children aged 12-59 months in the Wallandimu Community Health Center working area.
Method: This research uses an analytical research design with a cross sectional approach. The population in this study were toddlers aged 12-59 months in the Wallandimu health center working area and the sample in this study was 30 toddlers. The sampling technique in this research was simple random sampling. The Chi-Square statistical test was used to determine the relationship between variables.
Results: The results of the research from 18 respondents showed complete immunization status (76.7%), poor nutritional status (60.0%), and insufficient knowledge (56,7%) regarding the incidence of ISPA in the Wallandimu Health Center working area. The results of bivariate analysis showed no influence between immunization status and the incidence of ISPA ($p= 0.896 > 0.05$), there was an influence between nutritional status and the incidence of ISPA ($p= 0.007 < 0.05$), there was an influence between maternal knowledge and the incidence of ISPA ($p = 0.010 < 0.05$).
Conclusion: It is hoped that the Wallandimu Community Health Center will further improve its health programs, especially the Acute Respiratory Infection Disease control program for toddlers and provide education regarding maternal knowledge and the dangers of malnutrition for toddlers, so that the incidence of Acute Respiratory Infection Disease in children aged 12-59 months will decrease.

Keywords: immunization status, incidence of acute respiratory tract infections, mother's knowledge, nutritional status

Received August 10, 2024; Revised September 12, 2024; Accepted October 5, 2024
DOI: https://doi.org/10.30994/jnp.v8i1.656

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.8 No.1. October 2024. Page.197-206

BACKGROUND

Acute Respiratory Infection (ARI) is still listed as a major health problem for children under five in Indonesia. Around 450,000 under-five deaths occur every year and it is estimated that 150,000 of these under-five deaths are caused by ISPA (Rahayu, 2011). ISPA, if not treated properly, can cause serious complications. Complications that can arise are lung infections, infections of the lining of the brain, decreased consciousness, respiratory failure, and even death (Novia, 2021).

According to the World Health Organization (WHO, 2018), estimates of ARI cases experienced by children under five, especially in developing countries, show a high number, namely 151.8 million cases per year. The incidence of ARI experienced by children under five is highest in 15 countries, covering 115.3 million cases (74%) of the 156 million incidents worldwide. This percentage shows that half of the ISPA cases under five are in six countries, consisting of India (43 million), China (21 million), Pakistan (10 million), Indonesia, Nigeria and Bangladesh (6 million), covering 44% of the population of children with aged less than five years in the world per year (WHO, 2019).

Based on the results of Riskesdas (2018), the prevalence of ISPA in Indonesia is 9.3, of which 9.0% are male and 9.7% are female (Ministry of Health of the Republic of Indonesia, 2018). The highest prevalence of ARI occurred in the toddler group, namely 13.7%. The highest number of ISPA cases in Indonesia occurred in the provinces of East Nusa Tenggara 15.4%, Papua 13.1%, Banten 11.9%, West Nusa Tenggara 11.7%, Bali 9, (Ministry of Health, 2018).

The 2018 Riskesdas results show that East Nusa Tenggara (NTT) is the province with the largest incidence of ISPA in Indonesia. The prevalence of ISPA cases in NTT according to the diagnosis of health workers in 2018 was 15% (Ministry of Health of the Republic of Indonesia, 2018). Based on data from the Kupang city health office, ISPA has been the most common disease in the city of Kupang in the last three years. The incidence of ISPA in 2018 was 60,862 people, in 2019 there were 10,624 people, in 2020 there were 28,350 people (Kupang City Health Office, 2020). ISPA disease among toddlers at the Wallandimu Community Health Center also increases from year to year. Based on data from the Wallandimu Community Health Center, ISPA has been the most common disease in the last three years. The incidence of ISPA in toddlers in 2019 was 437 people; in 2020 as many as 521 people; in 2021 there will be 715 people (Wallandimu Health Center).

Various efforts have been made by the government to control ISPA disease, since 1984 at the same time as WHO began controlling ISPA disease at the global level (Ministry of Health, 2012). The implementation of the ISPA disease control program focuses on finding and treating sufferers as early as possible by involving the active role of cadres, integrated health service support and referrals to related health facilities (Rahmawati, 2018). However, these control efforts have not shown significant results (Riyanto, 2016).

The impact of ISPA that is not handled properly can cause pneumonia and death in children (Ministry of Health, 2016). According to the Indonesian Pediatrician Association (IDAI) in 2016, pneumonia is the most serious manifestation of acute respiratory infection which can cause death. To support efforts to reduce under-five mortality is by controlling risk factors, which includes providing complete immunization, increasing maternal knowledge about the signs and symptoms of ISPA and preventing ISPA, and malnutrition in toddlers, reducing indoor and outdoor air pollution (Ministry of Health, 2016).

The data above shows that the incidence of ISPA is still high in Indonesia. The risk factors for the occurrence of ISPA in toddlers are influenced by various factors including toddler factors (age, gender, nutritional status, immunization status), maternal factors

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.8 No.1. October 2024. Page.197-206

(knowledge), environmental factors (residential density, lack of ventilation, air pollution, family members who smoke (Maryunani, 2010).

Immunization factors can influence the incidence of ARI in toddlers. Toddlers who have incomplete immunization status will be more susceptible to ARI compared to toddlers who have complete immunization status. The results of previous research show that toddlers who do not receive immunizations are more likely to suffer from ISPA than toddlers who receive immunizations. Toddlers are more often affected by disease than people mature. This is due to the toddler's body's defense system against disease The infection is still in the developmental stage. Immunization is very useful in strengthening toddlers' body resistance to disease disorders (Aryanti, 2012).

Nutritional status factors influence the incidence of ARI in toddlers. Toddlers with normal nutritional status have good immune systems so they are protected from various diseases including ISPA. Previous research in Alak District, Kupang City showed a relationship between nutritional status and the incidence of ISPA in toddlers (Arief, 2013). This research found that the number of toddlers with normal nutritional status who did not suffer from ISPA was greater than the number of toddlers with poor nutritional status who did not suffer from ISPA. Insufficient nutritional status causes disruption of the hormonal system and body defenses in toddlers, making it easier for infectious diseases to occur (Suryani, 2018).

The mother's knowledge factor is also a cause of ISPA. The high incidence of ISPA in toddlers in Indonesia is partly caused by mothers' lack of knowledge about ISPA. Mother's knowledge is very important because in caring for her child the mother often plays a role in implementing and making decisions and caring for the child, namely in terms of providing food, care, health and illness. Thus, if the mother's knowledge is good in parenting, she can prevent and provide first aid to children who experience ISPA well (Titi et al, 2014)

Wallandimu Community Health Center is one of the community health centers in Kodi Bangedo sub-district, Southwest Sumba Regency which has working areas in several community health centers. ISPA cases at the Wallandimu Community Health Center occur every year and there is a fairly high increase in cases every year. The increase in ISPA cases occurring at the Wallandimu Community Health Center is higher every month compared to other community health centers. The incidence of ISPA at the Wallandimu Community Health Center in 2022 was as many as 906 children under five suffering from ISPA. The community within the Wallandimu Community Health Center area is a rural community which of course lacks information regarding handling and preventing ISPA. Thus, the fairly high increase in ISPA cases among toddlers in the Wallandimu Community Health Center working area needs to be studied further.

Based on the background above, researchers are interested in conducting research on the factors that influence the incidence of ISPA in children aged 12-59 months in the Wallandimu Community Health Center working area.

METHOD

This research uses an analytical research design with a cross sectional approach. With a simple random sampling technique, a sample of 30 respondents was obtained, the independent variables were immunization status, nutritional status and mother's knowledge and the dependent variable was the incidence of ISPA. The Chi-Square statistical test was used to determine the relationship between the two variables. Analysis using the Chi-Square statistical test resulted in $p = 0.000 < 0.05$, so H0 was rejected and H1 was accepted, which means there is a relationship between nutritional status and maternal knowledge and the

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.8 No.1. October 2024. Page.197-206

incidence of ISPA in children aged 12-59 months in the Wallandimu Community Health Center working area.

RESULTS

Table 1. Distribution of Respondent Characteristics and Variables

Research Result	Frequency (f)	Percent (%)
Age		
<25 yo	12	40.0
26-30 yo	11	36.7
>30 yo	7	23.3
Occupation		
House wife	26	86.7
Civil Goverment	2	6.7
Enterpreuneur	2	6.7
Education		
Elementary School	19	63.3
Junior High School	7	23.3
Senior High School	4	13.3
Bachelor	9	30
Children Age		
1 yo	6	20.0
2 yo	10	33.3
3 yo	9	30.0
4 yo	5	16.7
Immunization Status		
Complete	23	76.7
Not Complete	7	23.3
Nutrition Status		
Good	12	40.0
Poor	18	60.0
Mother Knowledge		
Good	5	16.7
Average	8	26.7
Poor	17	56.7
Total	30	100

Source: Processed Research Data (2024)

Table 2. Cross tabulation between variables

Immunization Status		Incident ISPA		Total	p
		ISPA	Non ISPA		
Complete	n	17	6	23	0.896
	%	56.7%	20.0%	76.7%	
Not Complete	n	5	2	7	
	%	16.7%	6.7%	23.3%	
Total	n	22	8	30	
	%	73.3%	26.7%	100.0%	

Source: Processed Research Data (2024)

The results of the chi-square test between immunization status and the incidence of ARI obtained a significance value (p) of 0.896 (p > 0.05) so that it was stated that there was no significant relationship between immunization status and the incidence of ISPA.

Nutrition Status		Incident ISPA		Total	p
		ISPA	Non ISPA		
Good	n	12	0	12	0.007
	%	40.0%	0.0%	40.0%	
Poor	n	10	8	18	
	%	33.3%	26.7%	60.0%	
Total	n	22	8	30	
	%	73.3%	26.7%	100.0%	

Source: Processed Research Data (2024)

The results of the chi-square test between nutritional status and the incidence of ISPA obtained a significance value (p) of 0.007 (p < 0.05) so that it was stated that there was a significant relationship between nutritional status and the incidence of ISPA.

Knowledge		Incident ISPA		Total	p
		ISPA	Non ISPA		
Good	n	1	4	5	0.010
	%	3.3%	13.3%	16.7%	
Average	n	6	2	8	
	%	20.0%	6.7%	26.7%	
Poor	n	15	2	17	
	%	50.0%	6.7%	56.7%	
Total	n	22	8	30	
	%	73.3%	26.7%	100.0%	

Source: Processed Research Data (2024)

The results of the chi-square test between knowledge and the incidence of ISPA obtained a significance value (p) of 0.010 (p < 0.05) so that it was stated that there was a significant relationship between knowledge and the incidence of ISPA.

DISCUSSION

Immunization Status Factors That Influence the Incidence of ARI in Toddlers

Based on the data it shows that the majority of toddlers with incomplete immunization status experience ARI. The number of respondents with incomplete immunization was 7 people or 23.3% and 23 people or 76.7% of respondents with complete immunization status. Based on the results of the Chi-square test, it shows that there is no influence between immunization status and the incidence of ISPA in the Wallandimu Community Health Center working area with a p value of 0.896 (p > 0.05), which means that respondents with complete immunization have no risk of contracting ISPA.

According to (Sitepu, 2018) Immunization is an effort made to provide immunity to toddlers so that they are protected from several types of infectious diseases and can even prevent death from these diseases. Basic immunization is the provision of initial immunization to newborn babies up to one year of age to achieve immunity levels above the protection threshold. Immunization against a type of disease is carried out by administering a vaccine made from a small number of bacteria or viruses that actually cause the disease. The

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.8 No.1. October 2024. Page.197-206

body that receives the vaccine will experience stimulation to form antibodies which provide an immune effect against certain diseases (Senewe, 2017).

The results of this research are in line with research conducted by (Namira, 2013). Previously, it was found that children with incomplete basic immunization status were more likely to suffer from ARI than children who received complete basic immunization. The percentage of children who do not receive complete basic immunization is greater than children who receive complete basic immunization because parents think that immunization can cause children to have fevers. Apart from that, the location where they live with health services is quite far away so parents are reluctant to take their children to be immunized.

According to researchers, the immunization status at the Wallandimu Community Health Center is good, almost all toddlers have been immunized. This is due to developments in the modern era, so that information about the benefits of immunization is already known to mothers from relatives, friends, social media, only some of them lack immunization status.

Nutritional status factors that influence the incidence of ARI in children

Based on table 4.6 above, it can be seen that 18 children under five are malnourished or 60.0% and 12 people or 40.0% are undernourished. Based on bivariate analysis, it shows that there is an influence between immunization status and the incidence of ISPA in the Wallandimu Community Health Center working area with a p value of 0.007 ($p < 0.05$) which shows a fairly close relationship between nutritional status and the incidence of ISPA.

According to Suryani (2018), nutritional status is one of the main determinants in maintaining body balance and health. Malnutrition will weaken the body's immune system and cause disease, especially those caused by infection. Toddlers with poor nutritional status will be more susceptible to infectious diseases and their attacks will even last longer than children with normal nutrition. Nutrients obtained from food intake have a strong effect on the body's immune reactions and resistance to infection (Hadiana, 2013).

Children who experience mild or moderate malnutrition can still be active. However, if you look closely, your body will start to become thin, your stamina and endurance will decrease, making it easier for infectious diseases to occur. On the other hand, children who suffer from infectious diseases will experience impaired appetite and absorption of nutrients, causing malnutrition (Aslina, 2018).

This is in accordance with research conducted by Purwaningtyas (2014), there is a significant relationship between nutritional status and the incidence of ISPA. And it was found that toddlers who suffer from ISPA experience poor nutritional status, because the toddlers do not have an appetite, which results in the toddlers being malnourished. Toddlers who are malnourished will be more susceptible to ISPA than toddlers with normal nutrition because their body's immune system is lacking. The results of this study confirm the need for dividing parental duties in caring for children so that all children receive equal attention in terms of fulfilling their nutrition. It is hoped that fathers and mothers can divide their roles in finding and preparing food that contains balanced nutrition for toddlers so that they do not become malnourished and avoid the risk of ARI in toddlers.

The research results show that the majority of toddlers with poor nutritional status experience ARI. This research found that the malnutrition status experienced by toddlers was due to the lack of readiness and maturity of parents both in terms of economics, age and parental experience in providing food intake to toddlers. The data obtained in this research shows that the majority of mothers of toddlers work as housewives. This shows that the family's low economic income means that children's food intake patterns cannot be met properly (Arief, 2013).

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.8 No.1. October 2024. Page.197-206

Mother's knowledge factors that influence the incidence of ARI in toddlers

Based on table 4.7 above, it can be seen that 17 people had poor knowledge or (56.7%), 8 people had sufficient knowledge or 26.7% and 5 people had good knowledge or (16.7%). Research shows that the majority of respondents have a low level of knowledge. Based on statistical tests using the Chi-Square test, the result was p = 0.010 < 0.05, which means there is an influence of mother's knowledge on the incidence of ISPA. Most of the respondents with less knowledge had toddlers who experienced ISPA. On the other hand, most respondents with a good level of knowledge have toddlers who do not experience ISPA. Therefore, the results of this study explain that the better the mother's knowledge and attitude towards a child's health, the lower the risk of ARI in toddlers. On the other hand, the less the mother's knowledge and attitude towards her child's health, the higher the risk of ARI in toddlers.

This is in accordance with the theory that knowledge has quite a big influence on ISPA. According to Eka (2015) knowledge is the result of remembering something, including remembering events that have been experienced either intentionally or unintentionally and this occurs after people make contact or observe a particular object. Knowledge is the basis for a person to make choices and take decisions in acting, such as making efforts to prevent a disease after getting information or after seeing and finding out about the dangers of the disease. Behavior that is based on knowledge will be more lasting than behavior that is not based on knowledge (Siburian, 2019). The level of a person's knowledge is influenced by the frequency of obtaining information and the seriousness with which a person receives that information (Wea, 2017).

The results of this research are in line with research conducted by Putriyani (2018) which found that children with ISPA were more likely to suffer from mothers with less knowledge. Mothers' low knowledge about ISPA risks causing ISPA to be more severe in toddlers. On the other hand, good maternal knowledge can reduce the risk of ARI in toddlers because mothers can take preventative and treatment measures as soon as possible. This research emphasizes the need for mothers of toddlers to increase their knowledge regarding efforts to prevent ISPA in toddlers. Increasing knowledge can be done by taking part in counseling conducted by health workers at community health centers and diligently attending posyandu because at posyandu health workers always provide information about efforts to prevent ISPA in toddlers.

Researchers are of the opinion that the mother's level of knowledge must be good, this is for the child's health so that ISPA does not occur. At the community health center, education has been given about ISPA, but there are still many mothers who still lack the level of knowledge.

CONCLUSION

1. There was no influence between immunization status and the incidence of ARI, the result was p = 0.896 (p > 0.05).
2. There was an influence of nutritional status on the incidence of ARI, the result was p = 0.007 (p < 0.05).
3. There is an influence between mother's knowledge and the incidence of ISPA, the result is p = 0.010 (p < 0.05).

REFERENCES

Afrianti, W. (2018). Analisa Faktor-faktor Yang Mempengaruhi Terjadinya ISPA Pada Balita Di Desa Sidomukti Kecamatan Plaosan Kabupaten Magetan. Skripsi. Madiun: Stikes Bhakti Husada Mulia. Diakses dari http://repository.stikes-bhm.ac.id/286/.

Agusta, M. (2013). Faktor-faktor Yang Berhubungan Dengan Kejadian Penyakit Infeksi Saluran Pernafasan Akut (ISPA) Pada Anak Balita Yang Berkunjung Ke Puskesmas Calang Kecamatan Krueng Sabee Kabupaten Aceh Jaya. Skripsi. Meulaboh: Universitas Teuku Umar. Diakses dari http://repository.utu.ac.id/456/1/BAB%20I_V.pdf.

Akdon & Riduwan. (2010). Rumus dan Data Dalam Analisis Statiska. Cet 2. Alfabeta.

Alfarindah, F. (2017). Determinan Kejadian ISPA Anak Balita Dalam Lingkungan Keluarga Perokok Di Wilayah Kerja Puskesmas Maccini Sawah Tahun 2016. Skripsi. Makassar: Universitas Hasanuddin. Diakses dari http://digilib.unhas.ac.id/uploaded_files/temporary/DigitalCollection/YzU1YmMyNU 3NDRiNTM3ODFiZGU5ZGU1NTk5MWFhOTJiN 2M4MjJkMg==.pdf.

Arief, Y., S., Krisnana, I., Israfil. (2013). Analisis Faktor Yang Berhubungan Dengan Kejadian ISPA Pada Balita Berdasarkan Pendekatan Teori Florence Nightingale Di Wilayah Kerja Puskesmas Alak Kota Kupang NTT. Jurnal Program Studi Pendidikan Ners. Universitas Airlangga.

Aryanti. (2012). Faktor-Faktor Yang Berhubungan Dengan Kejadian ISPA Pada Balita Yang Berobat di Kelurahan 3-4 Ulu Puskesmas 4 Ulu Palembang Tahun 2012. Aslina. (2018). Hubungan Status Gizi Terhadap Kejadian Infeksi Saluran Pernapasan Akut (ISPA) Pada Balita Di Wilayah Kerja Puskesmas Payung Sekaki Kota Pekanbaru Tahun 2018.

Azwar. (2011). Metode Penelitian. Yogyakarta: Pustaka Pelajar.

Eka, Y. (2015). Hubungan Pengetahuan Ibu Dengan Kejadian ISPA Pada Balita Umur 1-5 Tahun Di Puskesmas Temindung Samarinda Tahun 2015.

Fauzi, Y.A. (2019). Hubungan Status Gizi Dengan Perkembangan Balita Usia 1-5 Tahun (Di Posyandu Dempok Utara Kecamatan Diwek Jombang). Skripsi. Jombang: Stikes Insan Cendekia Medika. Diakses dari: http://repo.stikesicmejbg.ac.id/2035/3/SEKRIPSI%20YOGY%20AHMAD%20F.%20 2019.pdf.

Febrianti, A. (2020). Pengetahuan, Sikap Dan Pendidikan Ibu Dengan Kejadian ISPA Pada Balita Di Puskesmas 7 Ulu Kota Palembang. Jurnal Kesehatan Saelmakers Perdana, 3(1), 2615-6571.

Hadiana, S.Y.M. (2013). Hubungan Status Gizi Terhadap Terjadinya Infeksi Saluran Pernapasan Akut (ISPA) Pada Balita Di Puskesmas Pajang Surakarta.

Hamidah, A.Y. (2018). Hubungan Kesehatan Lingkungan Rumah Dengan Kejadian Infeksi Saluran Pernapasan Akut (ISPA) Pada Balita di Desa Pulung Merdiko Ponorogo.

Hartono, R. (2012). ISPA Gangguan Pernafasan pada Anak. Yogyakarta : Nuha Medika.

Kementerian Kesehatan RI. (2018). Laporan Nasional Riskesdas 2018.

_____2016. Buku Kesehatan Ibu dan Anak. Jakarta: Kementrian Kesehatan Republik Indonesia

_____2017. Profil Kesehatan Indonesia 2016. Jakarta: Keputusan Mentri Kesehatan Rebublik Indonesia.

_____2011. Pedoman Pengendalian Infeksi Saluran Pernapasan Akut. Jakarta: Ditjen PP&PL.

_____2012. Pedoman Pengendalian Infeksi Saluran Pernapasan Akut. Jakarta: Dirjen Pengendalian Penyakit dan Penyehatan Lingkungan.

Maryunani, A. (2010). Ilmu Kesehatan Anak Dalam Kebidanan. Jakarta: Trans Info Media.

Namira, S. (2013). Gambaran Faktor-Faktor Yang Mempengaruhi Kejadian ISPA Pada Anak Prasekolah di Kampung Pemulung Tangerang Selatan.

Notoatmodjo, S. (2010). Promosi Kesehatan Teori dan Aplikasi. Malang : Rineka Cipta.

Novia, T. W. (2021). Hubungan Pengetahuan Ibu dan Status Gizi dengan Kejadian Infeksi Saluran Pernapasan Akut (ISPA) Anak Balita 1-5 Tahun di Wilayah Kerja Puskesmas Karang Mekar Banjarmasin Tahun 2021.

Putriyani, G. A. (2017). Faktor-faktor Yang Mempengaruhi Kejadian Penyakit ISPA Pada Balita Di Desa Sidomulyo Wilayah Kerja Puskesmas Wonoasri Kabupaten Madiun. Skripsi. Madiun: Stikes Bhakti Husada Mulia.http://repository.stikesbhm.ac.id/391/1/SKRIPSI%20GUSTI%20AYU%20PUTRIYANI%20NIM%20201303022.pdf.

Rahayu, Y.S. (2011). Kejadian ISPA Pada Balita Ditinjau Dari Pengetahuan Ibu, Karakteristik Balita, Sumber Pencemar Dalam Ruang dan Lingkungan Fisik Rumah Di Wilayah Kerja Puskesmas DTP Cibeber Kabupaten Lebak Propinsi Banten Tahun 2011. Skripsi. Depok: Universitas Indonesia.

Rahmawati. (2018). Implementasi Fungsi Manajemen Program Promotif dan Preventif Penatalaksanaan ISPA Pada Balita di Puskesmas Kassi Kota Makassar Tahun 2018.

Riyanto, A. (2013). Pengetahuan dan Sikap Dalam Penelitian Kesehatan. Jakarta: Salemba Medika.

Riyanto, R. (2016). Pengaruh Asap Rokok Terhadap Frekuensi Terjadinya Penyakit ISPA Pada Balita di Puskesmas Kedung Banteng Banyumas.

Rosana, E.N. (2016). Faktor Resiko Kejadian ISPA Pada Balita Ditinjau Dari Lingkungan Dalam Rumah Di Wilayah Kerja Puskesmas Blado1. Skripsi. Tersedia dalam http://repository.uinjkt.ac.id. Diakses tanggal 28 September 2020.

Sara, C. M. (2020). Hubungan Perilaku Ibu dan Faktor Lingkungan dengan Kejadian Infeksi Saluran Pernafasan Akut Pada Balita di Puskesmas Medan Sunggal Tahun 2020.

Sari, L. I. (2020). Buku Ajar Imunisasi Bayi. Bandung: CV Media Sains Indonesia.

Senewe, M. S., Rompas, S. & Lolong, J., 2017. Analisis Faktor-faktor yang Berhubungan dengan Kepatuhan Ibu dalam Pemberian Imunisasi Dasar Di Puskesmas Tongkaina Kecamatan Bunaken Kota Madya Manado. E-Journal Keperawatan, Volume 5 No. 1.

Siburian, Y. E. (2019). Faktor-Faktor Yang Berhubungan Dengan Kejadian Infeksi Saluran Pernapasan Akut Pada Balita Di Puskesmas Padang Bulan Kota Medan Tahun 2019.

Silviana, I. (2014). Hubungan Pengetahuan Ibu Tentang Penyakit ISPA dengan Perilaku Pencegahan ISPA Pada Balita di PHPT Muara Angke Jakarta Utara Tahun 2014.

Sriningsih. (2011). Faktor Demografi, Pengetahuan Ibu Tentang Air Susu Ibu dan Pemberian ASI Eksklusif. Skripsi.

Sunarni, N. (2017). Hubungan Status Gizi dengan Kejadian ISPA pada Balita di Wilayah Kerja Puskesmas Margaharja Sukadana Clamis.

Suryani, I. (2018). Hubungan Status Gizi Terhadap Kejadian Infeksi Saluran Pernafasan Akut (ISPA) Pada Balita Di Wilayah Kerja Puskesmas Payung Sekaki Kota Pekanbaru Tahun 2018. Skripsi.

Susanti, M. (2017). Faktor-Faktor Yang Berhubungan Dengan Status Gizi Balita di Kelurahan Bumijo Kecamatan Jetis Kota Yogyakarta Tahun 2017.

Triyanto, A. (2016). Pengaruh Pendidikan Kesehatan Tentang ISPA Terhadap Perilaku Orang Tua Merawat Balita di Puskesmas Mojogedang I Karanganyar.

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.8 No.1. October 2024. Page.197-206

World Health Organization. (2015). [on line].Dari: http://www.who.[27 mei 2020]. 2016. Pnemonia. Geneva: World Health Organization. Retrieved , from http://www.who.int.[28 april 2020].