## GAMBARAN BAYI BALITA USIA 0-5 TAHUNYANG MENGALAMI ISPA DI PUSKESMASRAWAT INAP SIDOMULYO KABUPATENLAMPUNG SELATAN

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# ABSTRACT

Acute Respiratory Tract Infection (ARI) is one of the leading causes of morbidity and mortality in infants and toddlers, especially in developing countries. This study aims to find out the picture of infants and toddlers aged 0–5 years who experience ISPA at the Sidomulyo Inpatient Health Center, South Lampung Regency. This study uses a descriptive design with a retrospective approach based on patient medical record data over a certain period. The variables studied include demographic characteristics (age, gender), environmental risk factors, and clinical symptoms that appear. The results of the study showed that ISPA cases occurred more in the age group of toddlers than infants, with a higher proportion in the male sex. Environmental factors such as exposure to cigarette smoke in the home and poor ventilation also contribute to the high incidence of ISPA. These findings are expected to be the basis for more effective prevention and handling of ISPA at the primary health service level.

Keywords: Transformational Leadership, Performance, Employees, Hospital.

#### **INTRODUCTION**

Acute Respiratory Tract Infection (ARI) is a disease infection that attacks toddlers that occurs in the airways and is mostly a viral infection. Patients will experience fever, cough and recurrent colds as well as anorexia (Meadow, 2006). ISPA is a disease that often occurs in toddlers, according to experts, children's immune systems are very different from adults because their body's defense system is not strong. If in one house members get a cold, toddlers will be more susceptible to infection. With the condition of the child is weak, the process of spreading the disease becomes faster. The risk of COPD results in a small number of child deaths, but causes defects such as otitis (Anonim, 2010). Risk factors for the occurrence of ISPA are gender, age, nutritional status, environment, cigarette smoke habits, kitchen smoke, low maternal education level, low birth weight, breastfeeding, immunization status. The impact of ISPA can cause inability to drink, seizures, decreased consciousness, malnutrition, and can lead to death (Maryunani, 2010).

It is estimated that the incidence of ISPA in developing countries with a toddler mortality rate of 40 per 1000 live births is 15%-20% per year in the age group of toddlers. According to the WHO,  $\pm$  13 million children under five in the world die every year and most of these deaths are in developing countries and ISPA is one of the leading causes of death by killing  $\pm 4$  million children under five every year (World Health Organization, 2007). In Indonesia, ISPA always ranks first in the cause of death in infants and toddlers. Based on the prevalence of ISPA in 2012 in Indonesia has reached 25% with an incidence range of around 17.5% - 41.4% with 16 provinces among which have a prevalence above the national figure, besides that ISPA is also often on the list of the 10 most diseases in hospitals, mortality surveys conducted by the ISPA sub-directorate in 2013 placing ISPA as the largest cause of infant mortality in Indonesia, 32.10% of all deaths of children under five (Depkes, 2013). Based on records and reports from health facilities in Lampung province, it was found that the highest cases of ISPA were in the city of Bandar Lampung in 2012 at 28.05%. The death rate due to ISPA in toddlers is 1.19%. In the infant group, the mortality rate was higher, which was 2.89% compared to the age group of 1-4 years which was 0.20%. Indonesian Health Profile 2013.

The Toddler Mortality Rate (AKABA) based on data from the Indonesian Health Demographic Survey (SDKI) in 2012 amounted to 38 per 1,000 live births compared to the results of the SDKI in 2007 decreased by 55 per 1,000 live births, this survey data is conducted every five years. Meanwhile, from the results of the South Lampung Data Health Profile from the results of the health profile of the city district in 2012, the number of cases of ISPA in toddlers was 21.51%. In South Lampung, in 2013 in South Lampung Regency, the largest disease pattern in South Lampung Regency was acute nasopharyngitis of 32.31% (Dinas Kesehatan Lampung Selatan, 2015). From the results of a preliminary study conducted by researchers in the Sidomulyo Health Center area, Sidomulyo District, South Lampung Regency, data in 2015 from sick toddlers 90 people (62.06%) experienced Acute Respiratory Tract Infection (ISPA) This means that in 2015, the number of incidents of ISPA in toddlers at the Sidomulyo Health Center in 2015. Based on these data, the author is interested in further research on the description of toddlers who experience ISPA at the Sidomulyo Health Center, Sidomulyo District, South Lampung Regency in 2020.

Babies are children with an age range of 0-12 months. Infancy is the first month of critical life because babies will experience adaptation to the environment, changes in blood circulation, and body organs begin to function, and at the age of 29 days to 12 months, babies will experience very rapid growth (Nursalam, 2005). Growth is related to the problem of changes in size, size, number or dimension at the level of cells, organs or individuals. Growth is quantitative in terms of weight (grams, kilograms), length units (centimeters, meters) of bone age and metabolic balance (calcium and nitrogen retention in the body. Parameters

commonly used to measure growth progress are weight and height/length Normally, at the age of a few days, the baby's weight will decrease by approximately 10% of the weight at birth and will return to weight at birth on the tenth day. Body length is a measurement that describes the state of skeletal growth (Nursalam, 2005).

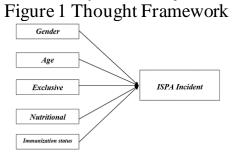
Toddlers are children less than five years old, so babies under one year old are also included in this group. Toddlers aged 1-5 years can be divided into two, namely children over one year to three years old who are known as toddlers and children over three years to five years old who are known as preschool age (Proverawati dan Kusuma Wati, 2010). Children aged 1-3 years are passive consumers, meaning that children receive food from what their mother provides, so toddlers should be introduced to various foodstuffs. The growth rate of toddlers is greater than that of preschool age, so a relatively large amount of food is needed. The diet given should be in small portions with frequent frequency because the toddler's stomach is still smaller so that it is not able to receive the amount of food in one meal. At preschool age, they will become active consumers, that is, they can already choose the food they like. Eating behavior is greatly influenced by the psychological, health and social state of the child. Therefore, the state of the environment and family attitude are very important in feeding children so that children are not anxious and worried about their food (Proverawati dan Kusuma Wati, 2010).

ISPA is caused by bacteria or viruses that enter the respiratory tract.one of the other causes of ISPA is the smoke of burning wood fuel, which attacks the environment of the community, because the community, especially housewives, always carry out cooking activities every day using wood fuel, gas or oil. shortness of breath and difficulty breathing. Pollution from wood fuel contains substances such as nitrogen and oxygen which are very harmful to health (Depkes, 2013).

The bacteria that cause ISPA can be transmitted from the saliva of people with ISPA that is dry, dust containing bacteria that cause ISPA can be carried by the air as a distribution to enter the human body, after entering the human body ISPA bacteria will easily develop in a body that has weak vitality, in this case toddlers with poor nutritional status will be more susceptible to ISPA than toddlers with normal nutrition because of the lack of immune factors that cause disease infections are easier to enter and develop in a state of poor nutrition, toddlers are more susceptible to severe ISPA even longer (Erlien, 2008). Signs and symptoms of ISPA vary widely, including fever, dizziness, malaise (weakness), anorexia (lack of appetite), vomitus (vomiting), fhotphobia (fear of light), restlessness, coughing, secretion of the stidor (sound of breathing), dyspnea (pain in breathing), pulling on the chest wall, hypoxia (lack of oxygen) and can progress to respiratory failure if not helped and will result in death (Nelson, 2005).

#### METODE

Research design is a research method that is carried out for the main purpose of making an objective description of a situation and this design is descriptive. The research design used in this study is by using descriptive, descriptive research is a research conducted to describe or describe phenomena that occur in society (Notoadmojo, 2018).



A population is the whole object being studied (Notoadmojo, 2018). The population in this study is all sick toddlers 0-5 years old at the Sidomulyo Inpatient Health Center in March 2020 which totals 90 people. A sample is a portion of all individuals taken from the object being studied and is considered representative of the entire population (Notoadmojo, 2018). The size of the sample that will be used in this study is all toddlers 0-5 years old at the Sidomulyo Inpatient Health Center in 2020. Which totals 90 people. Sampling technique is a technique or method of taking the sample as representative of the population as possible. The sampling technique that will be used in this researcher is that all populations are used as research samples (Notoadmojo, 2018). It was carried out in the Working Area of the Sidomulyo Health Center, South Lampung Regency. The time to be used for this study was carried out from March to May 2020. The method of data collection in this study is by using primary data at the Sidomulyo Inpatient Health Center in 2015 (Notoadmojo, 2018). The measuring tool used in this study is a list of fields containing name, age, gender, diagnosis, exclusive breastfeeding, immunization status, nutritional status, this checklist is filled in from the patient's medical records.

Variable	Age	Frequency	Presented
Age	<1 Year	18	20
	<5 Year	72	80
Gender	Man	47	55
	Woman	43	44
Exclusive	Not Exclusive	10	11
Breastfeeding	Exclusive	80	99
Immunization	Incomplete	18	20
Status	Complete	72	80
Nutritional Status	Good	87	97
	Bad	3	3

#### **RESULTS AND DISCUSSION**

Based on the table above, it can be seen that the average age of Toddler respondents who experience ISPA is <1 year, which is 18 respondents (20%) and <5 years as many as 72 respondents (80%). The average gender was male, which was 47 respondents (52.2%) and 43 respondents (44.7%). The average Exclusive Breastfeeding was not exclusive, which was 10 respondents (11.1%) and Exclusive as many as 80 respondents (88.9%). The average immunization status was Incomplete, namely 18 respondents (20%) and Complete as many as 72 respondents (80%). The average nutritional status was good nutrition as many as 87 respondents (97%), malnutrition as many as 3 respondents (3%).

ISPA can affect all humans, both men and women, at all ages, especially those less than 1 year old and less than 5 years old because the immune system of toddlers is more vulnerable than adults so they are prone to suffer from ISPA. Age is suspected to be related to the imperfect immune system, so it is still susceptible to sharing infectious diseases (Anik Maryunani, 2010) Children under 2 years old have a 1.4 times greater risk of developing ISPA compared to older children. This situation occurs because children under the age of 2 have imperfect immunity and the lumen of the airway is still narrow.

Based on the researcher's opinion, it is possible that this happens because children over 2 years old to 5 years old have been exposed to the outside environment and contact with other ISPA sufferers, making it easier for children to suffer from ISPA. This is in accordance with the results of a study conducted by Suyami (2005) that age<1 is at high risk for the incidence of ISPA compared to toddlers aged <5 years in the study. Age has a considerable influence on the occurrence of ISPA. Therefore, the incidence of ISPA in infants and children under five will be higher when compared to adults. Based on the age of the toddler, the results obtained were due to the limitations of the research conducted by interviews, and it took a long time. The incidence of ISPA in infants and toddlers will provide a bigger picture of the clinic, this is because ISPA in infants and toddlers is generally the first occurrence of infection and the immune process has not been optimally formed naturally. Babies less than 1 year old have a higher risk of COPD. This is because the immunity of children less than two years old is not good and the lumen of the airway is still narrow. However, this percentage is enough to represent the incidence rate at the Sidomulyo Inpatient Health Center, South Lampung Regency in March 2020. ISPA in children under five is often caused by respiratory viruses and its peak occurs at the age of 2-3 years. The causes include incomplete immunization, poor nutrition, not being given exclusive breastfeeding. The above research is also in line with the research conducted by (Suyami dan sunyoto, 2006) at the Sidomulyo Inpatient Health Center, South Lampung Regency.showed that the age of <1 was at high risk for the incidence of ISPA compared to toddlers aged <5 years in the study, which were 47.6%, 23.8%, respectively.

Gender is the difference in the form, nature and biological function of men and women that determine the difference in their roles in organizing efforts to pass on the lineage. From research in the Sidomulyo Health Center Area, South Lampung Regency in 2020, the gender group that experienced ISPA with male or male sex as many as 47 respondents (52.7%) This is because the male gender is more male than female because boys prefer to play in dirty, dusty places, and play a lot outside the house, so boys are more at risk. The group that was not at risk in the female gender description was 43 people (44.7%). Although the risk group is toddlers with a male gender, there is also a female group who experience ISPA. Because girls are also vulnerable so that the same is true for boys, it can also be influenced by other factors such as the Hygiene Environment Factors that affect the onset of disease that the environment is one of the factors that can affect the degree of health of the community, whether the health environment is healthy or not, individuals, families and society are very dependent on the behavior of the human being itself, besides that, The degree of health is also affected by the environment, for example, making the house ventilated enough to reduce smoke pollution and air pollution, heredity, for example, where there are people affected by the ARI, it can also be caused by heredity, and with good daily services, the ARIA disease will be reduced and the health will gradually improve, and affect one with the Wastewater Sewer Household waste is waste that comes from kitchen, bathroom, laundry, waste from household industry and human waste. Waste is waste or something that is not used in the form of liquid, gas, and solid. In wastewater there are chemicals that are difficult to remove and harmful. These chemicals can give life to germs that cause dysentery, typhoid, cholera and other diseases. The wastewater must be treated so as not to harm environmental health (Effendi, 2016).

Based on the results of Ridwan Daulay's research in Medan in 2006, it was found that the incidence of ISPA is no different between men and women, while ISPA at the age of <5 years is more common in boys. According to the research of Djaja, et al. (2005) the prevalence of ISPA in boys (9.4%) is almost the same as in girls (9.3%). Based on the opinion of the researcher, mothers should pay attention to the hygiene of their children, limit

play time so that they have enough rest time. Exclusive breastfeeding is breastfeeding without other additional food and drinks in babies aged 0-6 months.From research in the Sidomulyo Health Center Area, South Lampung Regency in 2020, the Exclusive Breastfeeding group that experienced ISPA with non-exclusive or risky breastfeeding status was 10 respondents (11.1%). This research is in accordance with the research conducted by (Suyami dan sunyoto, 2006) that there is no relationship between Exclusive Breastfeeding and the incidence of ISPA. This is because babies with breast milk are not exclusive, causing iron deficiency.iron deficiency is a condition in which a person does not have enough iron to meet the needs of his body or a reduction in blood cells due to a lack of iron. Lack of iron reserves, and not consuming breast milk exclusively where breast milk is an adequate source of iron, babies will be more susceptible to ISPA. The group was not at risk in the picture of exclusive breastfeeding as many as 80 people (88.9%). Although the risk group is toddlers with non-exclusive breastfeeding status, but the non-risk group also experiences ISPA due to iron deficiency.

Or it can also be influenced by other factors such as immunization status (especially incomplete immunization status) because toddlers with incomplete immunizations have a more vulnerable toddler's immune system, and are prone to suffer from ISPA, because incomplete immunization is suspected to be related to their imperfect immune system, so they are still susceptible to sharing infectious diseases (Fuad, 2008). Based on the opinion of the researcher, mothers should give exclusive breastfeeding without complementary foods until the age of 0-6 months, considering that the content is very important for the baby's immunity because there are a lot of formula milk contents that are not found in breast milk, breast milk has more of a comprehensive function in babies while formula milk only spurs a part. So it is very clear that exclusive breastfeeding is irreplaceable. In exclusive breast milk, the bifidus factor is 40 times more than cow's milk, and it is damaged when the milk is heated. Bifidus factor in the acidic atmosphere in the baby's intestines will stimulate the growth of Lactobacillus bifidus.

Immunization is the provision of immunity to a disease by inserting something into the body so that the body is resistant to diseases that are currently epidemic or dangerous for a person. from the research in the Sidomulyo Health Center Area, South Lampung Regency in 2015, the immunization group that experienced ISPA with incomplete immunization status or bresiko as many as 18 respondents (20%), this study is in line with the research conducted by (Fuad, 2008) which explained that there was no relationship between immunization status and the incidence of ISPA. This is because toddlers with incomplete immunizations are more vulnerable toddlers, and easily suffer from ISPA, because incomplete immunizations are suspected to be related to their imperfect immune system, so they are still vulnerable to sharing infectious diseases. Most of the deaths of ISPA come from the type of ISPA that develops from diseases that can be prevented by immunization such as diphtheria, pertussis, measles, so increasing immunization coverage will play a big role in efforts to eradicate ISPA, complete immunization is sought.

The group not at risk in the Immunization picture was 72 people (80%). Although the risk group is toddlers with incomplete immunization status, but the non-risk group also experiences ISPA, this is due to the low endurance of the child's body which can affect the incidence of ISPA in children, and supported by other factors, immunization itself cannot prevent the entry of disease seeds into the body, however, when the baby gets complete immunization, the development of the disease is expected will not be heavier. Infants and toddlers who have a complete immunization status if they suffer from ISPA can expect the development of the disease will not be severe (Anik Maryunani, 2010).

Another influencing factor is cigarette smoke, this is according to research (Hariani, 2012). Cigarette smoke and smoke from burning fuel for cooking at high concentrations can

damage the lung defense mechanism so that it will facilitate the onset of ISPA. This can happen in homes where ventilation is lacking and the kitchen is located in the house, united with the bedroom, the space where babies and toddlers play. This is possible because babies and children under five spend longer at home with their mothers so that the dose of pollution will certainly be higher. The results of the study obtained a relationship between ISPA and air pollution, including an increased risk of bronchitis, ISPA in children who live in more polluted areas, where this effect occurs in the age group of 9 months and 6-10 years (Hidayat, 2018). Based on the opinion of the researcher, he wants to participate in minimizing the incidence of ISPA by fully immunizing his children. Among them, don't forget to give nutritious food to children and implement clean and healthy living behaviors such as not smoking for family members under five.

Nutrition is an element found in food and can be used directly by the body as well as carbohydrates, proteins, fats, vitamins, minerals, and water. (Nursalam, 2005) From a study in the Sidomulyo Health Center Area, South Lampung Regency in 2015, the nutritional group that experienced ISPA with undernourished or at-risk status was 3 respondents (3.33%), If a child suffers from malnutrition, the immune system will be weakened, so that the disease easily attacks severe complications of ISPA is often found in children with malnutrition status calculated by using KMS Poor nutritional status < 3 Undernourished status > 3 < -2Good nutritional status  $\geq$ -2 - < +2 Nutrition more >+2 checks and using the index (Depkes RI, 2010). The group was not at risk in the description of nutritional status as many as 87 people (96.9%). Although the risk group is toddlers with undernourished status, there are also those who are not at risk who suffer from ISPA, this is because toddlers in the stunting group (undernutrition) suffer from illness for a long time compared to the number of toddlers in the normal group. Most of the toddlers in the stunting group suffer from ISPA disease. Toddlers who often experience pain for a long time will immediately affect their nutritional status, because the presence of pain will be followed by decreased appetite which in the end the child's weight will also shrink along with the decrease in appetite. If this condition occurs for a long time and is not immediately addressed, it will affect its nutritional status. in food and can be used directly by the body as well as carbohydrates, proteins, fats, vitamins, minerals, and water. Balanced nutrition is needed by the body, especially in toddlers who are still in the growth period. During the period of rapid growth and development of toddlers, food with the right quality and quantity is needed and balanced (Effendi, 2016). In addition to the parameters mentioned above, to assess the growth of children, KMS (Cards Towards Health) is also needed, which is a card that contains data and graphs of children's growth as well as developmental indicators that are useful for recording and monitoring the growth and development of toddlers every month from birth to 5 years old (Nursalam, 2005).

Based on the opinion of researchers, mothers who have children with poor nutritional status must pay attention to their diet so that the nutritional needs of toddlers and babies are met. That optimal nutritional status is a balance between nutrient intake and nutrient needs. Thus nutrient intake affects a person's nutritional status. Nutritional status is the state of health of an individual determined by the balance between nutrient intake and nutrient needs. Food consumption affects a person's nutritional status. The activeness of toddlers to the posyandu has a great influence on monitoring nutritional status. Posyandu is a routine activity that is carried out monthly, toddlers who are active every month to the posyandu will get weight weighing, health checks if there are problems, providing additional food and nutritional counseling. Toddlers who routinely weigh their weight and height every month, will know changes in their nutritional status. Healthy children are children whose weight has increased due to height gain, not because the child is getting fatter. Attendance at the posyandu can be an indicator of the affordability of health services for toddlers, because by attending regularly, toddlers will receive immunizations and other health programs such as

vitamin A and capsular iodine. With the inclusion of toddlers with basic health programs, it is hoped that toddlers will be monitored for their development and growth, at least during toddlerhood, where this period is a period of vulnerability/vulnerability to infectious diseases.

### CONCLUSION

Based on age in the work area of the Sidomulyo Health Center in South Lampung Regency in 2015 has a background based on the age of <5 years as many as 72 respondents (80%) From 90 respondents.average <1 year, which is as many as 18 respondents (20%). Gender in the work area of the Sidomulyo Health Center in South Lampung Regency in 2015 has a background based on. The average gender was male, which was 47 respondents (52.2%) and 43 respondents (44.7%). Exclusive breastfeeding in the work area of the Sidomulyo Health Center, South Lampung Regency in 2020 has a background based on the average Exclusive Breastfeeding of 10 respondents (11.1%) and Exclusive as many as 80 respondents (88.9%). The Exclusive Immunization Status in the work area of the Sidomulyo Health Center, South Lampung Regency in 2020 has a background based on the average Immunization Status of Incomplete, which is 18 respondents (20%) and Complete as many as 72 respondents (80%) and the Nutritional Status in the work area of the Sidomulyo Health Center, South Lampung Regency in 2020 has a background based on the Nutritional Status of the average good nutrition of 87 respondents (96.6%) malnutrition as many as 3 respondents (3.33%) nutrition poor nutrition as many as 0 respondents (0%) and overnutrition as many as 0 respondents (0%).

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