THE CORRELATION OF EXCLUSIVE BREASTFEEDING TOUPPER RESPIRATORY TRACT INFECTION DUETO INFACT AGE 7 – 12 MONTH

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ABSTRACT

Upper respiratory tract infaction (ISPA) is a maindisease among children in developing contriesincluding in Indonesia. Acute respiratory infection are primary infection of the lovarian service, and the nose frequently secretes this disease often found in infants and children. Breastfeeding is a natural food for newborn particulary in the first month of live. This is not only for the child but also for mother, family and the country.

The study aims to determine the corelations of exclusive breastfeeding with the incidence of Upper respiratory tract infaction (ISPA) in infacts 7-12 months in the work area of the Bunar community health center. This Study uses quantitative analitical methodes with cross sectional research design and uses total sampling. Population in the study were 43 respondents and sampel in this study were 43 respondents data collection was obtained using checklist sheet.

Based on the results of research with the cramer v test on43 respondents obtanied from the data distribution of exclusive breastfeeding as many 26 (60.5%). Respondents were not exclusive breastfeeding. And the frekuency distribution of ISPA occurrences as many 23 (53.5%) non respected respondents. Statistic test result obtained p = 0.000 which means value < 0.05 results Ho is rejected an Ha accepted in other a corelations between exclusive breastfeeding with the incidence of ISPA 7-12month in the working as ares of the bunar puskesmas in cigudeg sub district of bogor in 2019.

From this study it can be concluded that the majority of mothers who do not give exclusive breastfeeding to their baby. Baby those who do not get exclusive breastfeeding will have a risk 0.023 times to expeeience ISPA compared to thoses given exclusive breastfeeding.

Keyword : Upper respiratory tract infection, Exclusive breastfeeding

PRELIMINARY

Health development as part of efforts to develop a complete human being, among others, is carried out through child health efforts carried out as early as possible since the child is still in the Department of Health's womb. Infectiousdisease is a major cause of high mordibity morbidity and mortality rates, especially in developing countries. Infectious disease is adisease caused by microorganisms, both bacterial, viral, and fungal. Common cold, also called Upper Respiratory Infection (ARI), is a primary infection of the nasopharynx and nose that often secretesfluids. this disease is often found in infants and children

Acute Respiratory Infection (ARI)is an infectious disease where morbidity and mortality is still high. In Indonesia, the case of death due to ARI is still quite high, which is about 4 out of 15 million estimated deaths in children aged less than 5 years every year two-thirds occur in infants. Acute respiratory infections (ARI) is one of the main diseases that cause infant death and often ranks first in morbidity. Early treatment of ARI is proven to reduce mortality. Stating that in Indonesia ARI andpneumonia is the third leading cause of death in children under the age of five, which is as much as 14%. Episodes of coldsin toddlers in Indonesia are estimated at 3 to6 times per year.

Efforts to prevent ARI earlier are expected to prevent ARI complications in infants that can have fatal consequences such as pneumonia in addition to other complications such as acute otitis media (OMA) and mastoiditis although theeradication of ARI disease has been developed since 1984, along with the launching of the eradication of ARI disease at the global level. by WHO but until now ARI is still called the forgotten plague of The Forgotten Pandamic.[2]

Acute Respiratory Infection (ARI)is one of the main diseases the cause ofinfant mortality and often keep the first order of illness for toddlers. Early treatmentof ARI is proven to reduce mortality. stated that in Indonesia ARI and pneumonia is the third leading cause of death in children under the age of five, as many as 14% .[3]

The most severe cause of ARI is infection with streptococus pneumonia or Haemaophillus influenzae. Many deathsdue to pneumonia occur at home, including after experiencing pain for several days. The ISPA limitation program specificallyhas been started since 1984, with the aim oftrying to reduce morbidity and mortality rates especially for infants and toddlers caused by ARI, but it seems that the morbidity and mortality rate is still high. In general there are 3 (three) risk factors for ARI, namely environmental factors, individual child factors, and behavioral factors. These factors are very closelyrelated to the incidence of ARI.[4]

A survey of the proportion of Early Breastfeeding Initiations in infants aged 0- 23 months according to the results of the 2018 Riskendas in Indonesia showed an increase from (2013) 34.5 to 58.2% (2018), while the number of infants aged less than 6months who were given Persial breastfeeding was 9.3% Predominant breast milk 3.3% and Exclusive breastfeeding37.3%. however this figure is lower becausethe national target for exclusive breastfeeding coverage in 2019 is 80%. ARI is still a public health problem in Indonesia, especially in infants. According to the results of Riskendas 2018, ARI is the number two killer of children under five(13.2%) after diarrhea (17.2%). The results of the ARI survey according to health personnel diagnosis (NASKES) 2013-2018 decreased in 2013 reaching 15.0% and 2018 reaching 4.4% when compared to developing countries including Indonesia, the incidence of ARI around 36% of thenumber of children under five. Based on theresults of the 2018 Riskendas West JavaIncident in 2018 it was 5.0% and the ISPA prevalence was 12%. Ten districts that havethe highest incidence and prevalence for all ages, one of which is West Java .5

Age 0-24 months is a period of rapid growth and development, so it is oftentermed a golden period as well as a critical period. The golden period can be realized if during this period infants and children receive appropriate nutritional intake for optimal growth and development, conversely if babies and children at this time do not get food that is in

accordance with their nutritional needs, the golden period will turn into a critical period that will interfere with the growth and development of infants and children both at this time and in the future. Breast milk is the perfect and best main food for babies because it contains the nutritional elements that babies need in their growth and development process.

Exclusivebreastfeeding is giving only ASI for 0 - 6 months without being given food or other drinks, non-exclusive breastfeeding is giving ASI which is added by giving food.[6]

At the sub-district level it can be seen that the sub-district with the highest number of sufferers is the West Bogor District of 1,571 cases or 129.51%. bunar puskesmas with ARI in infants <1 year from January to July 2019 as many as 129 cases The cause of this case may be influenced by environmental conditions and healthy living habits such as the conditionof an unhealthy home.

The effectiveness of breast milk in controlling infection can be proven by the reduction in the occurrence of some specificdiseases in babies who are breastfed compared to babies who get formula milk. Research by the world health agency proves that breastfeeding until the age of 2 years can reduce child mortality due to diarrheal disease and acute respiratory infections.[7]

In several studies it is known, there are many risk factors for ARI in infants and toddlers. Some of these factors aremalnourished infants, low birth weight(LBW), inadequate breastfeeding, high house occupancy rates, incompleteimmunizations, gender, vitamin A deficiency, iron deficiency, vitamin D deficiency or calcium, baby age, smokers, seasonality, health services, low socioeconomic and burning smoke.

The bioactive component in breast milk protects infants against respiratory infections such as immunoglobulin (SigA) against the syncial virus produced by bronchomammary and for macroglobulin substances that inhibit influenza viruses. This supports that respiratory infections in infants who get full milk, are lighter than babies who get formula milk. Breast milk contains nutrients needed at the beginning of human life and contains antidotes to various diseases in the form of anti-body.9

Preliminary Study Results conducted in the working area of Bunar Health Center in Cigudeg Sub-District,Bogor Regency on August 18, 2019 with 10respondents with mothers aged 7-12 months, 8 babies had experiencedsymptoms of ARI 6 of them did not get exclusive breastfeeding, 2 babies got breast milk Exclusive and 2 other babies get exclusive breastfeeding and do not experience ARI. Based on this background, the researcher is interested in taking the title The relationship between exclusive breastfeeding and the incidence of ARI in infants 0-6 months in the Bunar Public Health Center.

RESEARCH METHODS

This type of research is a Quantitative Analytical Descriptive that is aresearch method that aims to see a pictureof phenomena that occur in a particular population and try to explore why that phenomenon can occur. Then analyze the correlation dynamics between phenomena, both risk factors and effect factors. An effect factor is a result of a risk factor, whereas a risk factor is a phenomenon that results in an effect (effect) .[10]

For this research design using crosssectional approach that is analytic research design that aims to determine the relationship between variables where the dependent variable and independent variables are identified at one time unit (Point Time Approach). This research was conducted on 2,6,11 September 2019 at the Bunar Health Center, Cigudeg District,Bogor Regency. [11]

Population is a generalization area that consists of objects / subjects that have certain qualities and characteristics determined by researchers to be studied andthen conclusions drawn other than that the population is the whole object of theresearcher. The population in this study were all mothers who had infants aged 7 - 12 months in 3 Posyandu, Bunar Village, Cigudeg District, Bogor Regency in 2019. With a total of 43 mothers who had infants aged 7 - 12 months.

The sample is a large portion of the number and characteristics possessed by the population. Besides the research sample is a portion of the population that represents a population that is the subject of research. The sample in this study were all mothers who have infants aged 7-12 months in the Bunar Health Center Work Area. Thesampling technique in this study is total sampling is a sampling technique where thenumber of samples is equal to the population for taking total sampling because the total population is less than 100the entire population is used as a sample of all research. Samples taken in this studywere 43 people.[12]

The independent variable in this study is exclusive breastfeeding. The dependent variable in this study is ARI The type of data used in this study uses primary data that is data obtained from checklist sheets. Tool used to determine the relationship of exclusive breastfeeding withthe incidence of ARI in infants of 7-2 months.

Hypothesis is defined as aproposition that shows the relationshipbetween two or more concepts or interconnections between concepts. Thehypothesis in this study is the relationship between exclusive breastfeeding and the incidence of ARI in infants 7-12 months in the Bunar Health Center in 2019.

The alternative hypothesis is alsocalled the work hypothesis. This hypothesisstates the difference between one variable with another variable or states the relationship between one variable with another variable or the bias also states the influence of one variable or treatment on another variable. This alternative hypothesis is written as "Ha". Ha: Alternative Hypothesis is a temporary answer that shows the relationship between exclusive breastfeeding and the incidenceof ARI in infants 7 - 12 months in the Bunar Health Center in 2019 with a p value of 0.000 <0.05.

Data analysis consisted of univariate and bivariate analyzes. Univariate analysis aims to explain ordescribe the characteristics of research variables. The form of univariate analysis depends on the type of data. For numerical data the mean or secondary median and standard deviation are used. In general, this analysis only produces the frequency distribution and the percentage of each variable. The independent variable is exclusive breastfeeding and the dependent variable is the incidence of ARI. Analysis

Bivariate is an analysis conducted on two variables that are suspected to be related or correlated. Kendal correlation or used to find the relationship between two ormore variables. Cramer's Test V Cramer Contingency Coefficient is a hypothesis test to find out the relationship between 2 nominal scale variables.

Associated with the characteristics of the scale and nominal, the cramer correlation test includes nonparametic statistics, that is, it does not require data to be nominal distribution. To find out whether there is a relationship value or not, it can be seen from the significance value of the three correlation coefficients namely phi, Cramer's V and Cramer Contingency Coefficient analysis using statistical tests. This study aims todetermine the relationship of exclusivebreastfeeding with ARI Kejadin in 7-12 months infants in the working area of the bunar puskesmas in cigudeg sub-district. [14]

RESEARCH RESULT

Based on the distribution of characteristics frequency based on the sexof infants in the Bunar Health Center it can be concluded that from 43 respondents there were 27 respondents (62.8%) male sex.

Based on the frequency distributionof characteristics based on age, it can be concluded that from 43 respondents there are 12 respondents (27.9%) aged 10 months. Based on the distribution of the frequency of exclusive breastfeeding showsthat of the 43 respondents most mothers do not give exclusive breastfeeding to their babies, not exclusive breastfeeding that isas many as 26 respondents (60.5%). Based on the frequency of ARI in infants 7-12 months, it shows that of 43respondents, there were 23 infants (53.5%) who did not experience ARI.

Based on the results of the relationship between exclusive breastfeeding and the incidence of ARI in infants aged 7-12 months from 43 respondents there were 19 respondents who were not exclusive breastfeeding with the incidence of ARI (44.2%). Statistical test results obtained p value = 0.000, which means value <0.05 in other words there is a significant relationship between exclusivebreastfeeding and the incidence of ARI in the Bunar Health Center, Cigudeg District, Bogor Regency.

From the results of the study it was found that infants who were given exclusive breastfeeding had an Odds Ratio of 0.023 times to experience the incidence of ARI compared to infants who were given exclusive breastfeeding. The results of this study prove the research hypothesis that non-exclusive breastfeeding increases the risk of 0.023 times to experience an ARI compared to babies who are exclusively breastfed.

RESEARCH DISCUSSION

a. Exclusive breastfeeding

Based on frequency distribution of exclusive breastfeeding shows that of the 43 respondents, most of the mothers did not give exclusive breastfeeding to their babies not exclusive breastfeeding, namely 26 respondents (60.5%).

Breast milk is the perfect and best main food for babies because it contains the nutritional elements that babies need in their growth and development process. Exclusive breastfeeding isgiving only ASI for 0 - 6 months without being given food or other drinks, non-exclusive breastfeeding is giving ASI which is added by givingfood.[6]

The effectiveness of breast milk in controlling infection can be proven by the reduction in the occurrence of some specific diseases in babies who arebreastfed compared to babies who getformula milk. Research by the world health agency proves that breastfeeding until the age of 2 years can reduce child mortality due to diarrheal disease andacute respiratory

infections.[7]

This is in line with the study of Ariefeen et al (2014) which concluded that infants who get persial breast milk will be susceptible to ARI. The risk of infants receiving Persial ASI for deaths due to ARI is 2.23 times higher thanbabies who are exclusively breastfed.

Based on the results of Anthony Widyanata Lebuan's research in 2014 entitled The Relationship Between Exclusive Breastfeeding and Acute Respiratory Infection in Kindergarten Students in the cold village of East Denpasar sub-district in East Denpasar District, the frequency distribution of exclusive breastfeeding showed that of 165 respondents there were 104 respondents no Exclusive breastfeeding (63.0%) with a p value <0.05 in the cold chate village of East Denpasar sub- district in 2014.

According to researchers based on the theories above that Because of the importance of breast milk for babies, theresearchers suggest that mothers breastfeed their babies for 6 months from birth, known as Exclusive breastfeeding. Because exclusivebreastfeeding can reduce the risk of infection. Infants who are exclusively breastfed are more resistant to disease than infants who are not breastfed.6

b. ARI

Based on frequency of ARI in infants 7-12 months refers to 43 respondents, which caused the incidenceof ARI not as many as 23 babies (53.5%).

ARI (acute respiratory infection) is an acute respiratory infection and lower respiratory tract. ARI is an acute respiratory infection that lasts 14 days. The respiratory tract is an organ that starts from the nasal cavity up to theephiglottis and such as fever, cough, runny nose, ear infections.[11]

Meanwhile, infections that enter are germs or microorganisms into the body and multiply, causing a mild disease thatwill heal by itself within 1 to 2 weeks, but this disease can cause complications,depending on the problem at hand.

ARI is a disease that often occurs ininfants, toddlers and children, becausetheir body's defense system is still low, cold cough disease in toddlers in Indonesia is estimated to reach 3 to 6 times per year which means that on average there is a coughing cold attackas much as 3 to 6 distant times

The results of Herlinda Christi's research in 2015 with the title factorsrelating to the incidence of ARI at the age of 6-12 months in the CandilamaPublic Health Center in Semarang in 2015 obtained the frequency distributionof ARI from 43 respondents who could not be issued ISPA as many as 27 babies(65.9%). Statistical test get the value of p - 0.0001, which means the value <0.05. The study was aligned with research conducted by Herlinda Christi in 2015 the results of this study were obtained from the research relationship between exclusive breastfeeding and ARI events. According to researchers based on theories about factors that influence ARIevents, one of which is exclusive breastfeeding. ASI is a protective factor against ARI. Breast milk protects babies from a variety of diseases including respiratory infections and intestinalinfections. From Results of the relationship between exclusive breastfeeding with ARI events in infants aged 7 - 12 months from 43 respondents including 19 respondents who did not exclusively breastfeeding ARI events (44.2%).

Breast milk is a complete and best food for babies because it contains no nutrients needed by the baby in the process of growth and development. Exclusive breastfeeding is breastfeeding only for 0 - 6 months without givingfood or other drinks, non-exclusive breastfeeding is breastfeeding added with food providers.5 The effectiveness of breast milk in controlling infections can be proven by its protection.Comparing with babies who get formula milk. Research by the world health agency proves that breast milk up to the age of 2 years can reduce child mortalitydue to illness and acute respiratoryinfections

ARI (acute respiratory infection) is an acute respiratory infection and lower respiratory tract. ARI is an acute respiratory infection that lasts 14 days. The respiratory tract is an organ that starts from the nasal cavity up to theephiglottis and such as fever, cough, runny nose, ear infections.[4]

While what is meant by infection is the entry of germs or microorganismsinto the body and reproduce, causing mild illness that will heal by itself within1 to 2 weeks but this disease can cause complications (serious symptoms) if left unchecked immediately.

According to coutsoudis andbantley (2014) that breast milk haselements that meet all the needs of the baby for nutrient integrity for a period ofabout 6 months unless the mother experiences severe malnutrition. Thepresence of antibodies and macrophage cells in breast milk and colostrum provides protection against certain types of infections, therefore babies who get exclusive breastfeeding are rarely infected with respiratory infections and diarrhea. Infants who get exclusive breastfeeding automatically get immunity that is anti-infective. Breast milk also provides passive protection forthe child's body to deal with pathogens that enter the body.

Based on research conducted byHesti R. Masela 2015 from 90 toddlerrespondents, it was found that thenumber of babies who did not getexclusive breastfeeding was 67 babies(74.4%) and those with ARI 50 babies(65.7%). Obtained a chi-square value of 11,883 and p = 0.001 <0.05 this shows there is a relationship between exclusive breastfeeding with a history of infection.

According to researchers based on the theories above that babies who get exclusive breastfeeding automatically get immunity that is anti-infectious.Because of the abundant content, it is clear that exclusive breastfeeding can provide many benefits, one of which canprevent ARI. Children who are given exclusive breastfeeding have a good effect on preventing the incidence of ARI compared to non-exclusive breastfeeding. It has been proven to be effective in preventing respiratory infections in children.

CONCLUSION

1. It is known that the frequency distribution of exclusive breastfeeding for infants 7-12 months in the Bunar Health Center Work Area shows that of the 43 respondents, most of the mothers did not give exclusive breastfeeding to their babies not exclusive breastfeeding, namely 26 respondents (60.5%).
2. Known ARI events in infants 7 - 12 months in the Bunar Puskesmas Work Area shows that of the 43 respondents who experienced no ARI 23 (53.5%) infants.
3. Known The results of the analysis of the relationship between exclusivebreastfeeding and the incidence of ARI in infants aged 7-12 months are known from 43 respondents.

26 babies (60.5%) did not receive exclusive breastfeeding. Infants without ARI 7 (16.3), while infants with ARI were 19 and babies who received exclusive breastfeeding were 17 babies (39.5%). Infants without ARI 16 (37.2%) while infants with ARI 1 (2.3%). Cramer's V test results obtained a value of p = 0,000 which means the value <0.05 in other words there is a significant relationship between exclusive breastfeeding with the incidence of ARI in the Bunar Health Center, Cigudeg District, Bogor Regency.

SUGGESTION

1. For further researchers
   It is hoped that this research can addinsight into knowledge, especially maternity nursing about the relationship of exclusive breastfeeding with the incidence of ARI in infants 7-12 months.
2. For institutions
   a. For STIKes Wijaya Husada
      This research is expected as areference material about the relationship of exclusive breastfeeding with the incidence of ARI. Can provide and add to the literature about the relationship between exclusive breastfeeding with the incidence of ARI for future research input.
   b. For Puskesmas Bunar
      It is expected to be able to foster community participation with the cooperation of PKK cadres guidance and motivation fornursing mothers in exclusive breastfeeding for 6 months.
   c. For Respondents
      To improve maternal knowledge, especially regarding the importanceof exclusive breastfeeding to infants and is expected to be able tocarry out exclusive breastfeeding toprevent acute respiratory infections so that it can reduce the risk of ARIin these infants.

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