ATLANTIS PRESS

*Advances in Health Sciences Research, volume 26*

**2nd Bakti Tunas Husada-Health Science International Conference (BTH-HSIC 2019)**

# The Influence of Exclusive Milk Water to the Event of Acute Breathing Infection in Artificial Infants in 6-12 Months

Soni Hersoni
STIKes Bakti Tunas Husada Tasikmalaya
Tasikmalaya, Indonesia

*Abstract*— **Objectives: Detemination of this study was to determine the effect of exclusive breastfeeding on the incidence of ARI in infants aged 6-12 months in the RAB RSUD dr. Soekardjo Tasikmalaya City in 2014. This type of research is case control. The power of the relationship of exclusive (independent) breastfeeding to ARI events. The population in study were infants aged 6 to 12 months who v ere in the RSAB of Tasikmalaya City Hospital. Acute Respiratory Infection (ARI) is a disease that many children experience children and is the most common cause of death in de eloping countries. WHO (2003) estimates that around 4 million of the 15 million children under 5 years of age die from ARI each year and as many as two-thirds of these deaths occur in infants. As many as 40% - 60% of the number of visits to the Puskesmas is ARL The purpose of this study was to determine the effect of exclusive breastfeeding on the incidence of ARI in infants aged 6-12 months in the RAB RSUD dr. Soekardjo Tasikmalaya City in 2014. This type of research is case control. The power of the relationship of exclusive (independent) breastfeeding to ARI e ents. The population in lesson were infants aged 6 to 12 months who were in the RSAB of Tasikmalaya City hosspital. Statistical test results obtained p alue <0.05 means that there is a significant influence between exclusi e breastfeeding with the incidence of obesity. OR value of 32,738. (95% CI: 11 951-89 684) means that infants aged 6-12 months who are not given exclusive breastfeeding are 32.738 times more to have an Akl event than the Non-ARI group. Of th 9 extraneous dtermination analyzed only 4 variables have statistical significance. which has a P value <0.05 Le . (1) mother's education (2) economic status (3) nutritional status, (4) house ventilation. As a precautionary measure it is hoped that the community can, ork together to create an en ironment and healthy li ing behaviors (not smoking indoors, exclusi e breastfeeding for toddlers, habit of opening windows in the morning and afternoon and keeping a distance from toddlers when suffering from ARJ both in the family and community life.**

***Keywords: malnutrition in toddlers, breastfeeding, feeding, care for underweight children***

## I. INTRODUCTION

Uppeer Respiratory tract Infection (URI) is a disease that is often experienced children and is the most common cause of death in developing countries. WHO (2003) estimates that around 4 million of the 15 million children under 5 years of age die from ARI each year and as many as tv o• thirds of these deaths occur in infants. As many as 40% - 60% of the number of visits to the Puskesmas is ARI. The purpose of this study was to determine the effect of exclusive breastfeeding on the incidence of ARI in infants aged 6-12 months in the RAB RSUD dr, Soekardjo Tasikmalaya City in 2014. This type of research is case control, To see the strength of the relationship of exclusive

(independent) breastfeeding to ARI events. The population in this study were infants aged 6 to 12 months who were the RSAB of Tasikmalaya City Hospital.

 

Acute Respiratory Infection (ARI) is a disease that many children experience and is the most common cause of death in developing countries. WHO (2003) estimates that around 4 million of the 15 million children under 5 years of age die from ARI each year and as many as two• fJirds of these deaths occur in infants. Each child is estimated to experience 3-6 episodes of ARI each year. As many as 40% - 60% of the number of visits to the Puskesmas is ARI. One of the 'Nays to pre

Breast milk contains all the nutrients and fluids needecfll meet all nutritional and fluid needs in the first six months of life. Breast milk contains

protective substances or immune substances.

Immune substances in breast milk can protect babies from diarrhea or diarrhea infectious diseases ears coughs colds and allergic diseases. Infants who are exclusively breastfed wil] be healthier and rarely sick compared to babies who are not exclusively breastfed. Based on the results of the Basic Health Research report (RISKESDAS) in 2007 the prevalence of ARI in Indonesia, as around 25 .5% with the highest prevalence occurring in two-year infants(> 35%). The number of children under five with ARI in Indonesia in 2011 was five out of 1 000 children, which means that as many as 150 000 children die per year or as many as 12,500 children per month or 416 cases a day or 17 children per hour per hour or one fifth of a fifth of a minute. It can be concluded that the prevalence of ARI sufferers in Indonesia is 9.4% (MOH 2012). The incidence of AR in West Java province reached 24. 73%. The number of ARI sufferers in West Java in 2012, as estimated at 20 687 cases.

According to the head of the Wasdal section of the Bandung District Health Office the Bandung District ranks highest for ARI prevalence. It is estimated that ARI cases suffered by children under five in Bandung Regency as many as 320 thousand infants out of a total population of 3.2 million people each year. In 2010, the Bandung District Health Office received 21 929 cases of Ispa cases from the Puskesmas, with two deaths. Whereas in 2011 there were 22,371 cases with two deaths, in 2012 there, ere I 83 640 cases and in 2013 there W ere 144 366 cases. Based on 2009 data taken from the Tasikmalaya city health office the results showed that the number of children under five, ho, ent to the puskesmas in the Tasikmalaya area suffered from ISPA. Especially in Kawalu puskesmas as many as 890 people Cilembang as many as 699 people Tawang as many as 508 people. The purpose of this study was to determine the effect of breastfeeding

3901sooo

Text inclusive of the incidence of ARI in infants aged 6-12 months in RSUD Dr. Soekarjo in 2014. The results of this study are expected to pro ide information to the public and mothers in particular about the benefits of exclusive breastfeeding in preventing ARJ e ents in infants aged 6-12 months.

2.1 ARI (Acute Respiratory Infection). The term ISPA which stands for Acute Respiratory Infection was introduced in 1984 after being discussed at the ISPA National Workshop in Cipanas . This term is the equi alent of the British term Accute Respiratory Infections abbre1Ded as ARI. The term ARI includes three elements namely infection respiratory and acute with th1ffollowing definitions;a. Infection is the entry of germs or microorganisms into the human body and multiply so as to cause symptoms of the disease. b. The respiratory tract is an organ from the

nose to the alveoli and their adnexal organs such as the sinuses, middle ear cavity pleura ARI anatomically includes the upper respiratory tract lm er respiratory tract (including lung tissue) ant, dnexal organs of the respiratory tract. c. Acute infection is an infection that lasts up to 14 days. Limit .2 Signs and Symptoms According to these erity ARI can be divided into three groups, among others: mild ARI not pneumonia ARI pneumonia and ARI se ere pneumonia. Especially for infants under two months only known to severe ARI and mild ARI (no ARI). Limitation of severe ARI for infants less than tw o months is when the frequency of breathing is fast (60 x / min or more) or the presence of a strong chest wan traction. The symptoms of ARI include the following:

a. Symptoms of mild ARI
A child is diagnosed with mild ARI if symptoms are found as follows:

1) Cough

2) Shortness is a hoarse child when making a sound (for example when talking or crying).

3) Colds, namely mucus or snot out of the nose.

4) Heat or fe er, body temperature more than 370 C or if the child's forehead is touched with the back of his hand feels hot

b. Symptoms of moderate ARI
A child is declared suffering from moderate ARI if symptoms of mild ARI are accompanied by the following symptoms;

1) Breathing more than 50x / minute in children aged. less than 1 year or more than 40x / minute in children one year or more.

2) Temperature more than 390 C.

3) Red throat.

4) Spots appear on the skin resembling measles.

5) Ear pain or pus from the ear hole.

6) Breathing sounds like snoring.

7) Breathing sounds squeaking.

c. Severe ARI symptoms A child is diagnosed with severe ARI if there are mild or moderate ARI symptoms with one or more of the follow ing symptoms;

1) Blue lips or skin.

2) The nostrils are flattened (wide enough) when breathing.

3) Children are not aware or decreased consciousness.

4) Breathing sounds snoring and the child looks nervous.

5) Respiration sounds shrink and the child looks nervous.

6) Between ribs pulled in hen breathing.

7) Fast pulse more than 60 times / minute or not palpable.

8) Red throat.

Severe ARI patients must be treated in a hospital or health center because they need to be treated with special equipment such as oxygen and infusion (MOH RI, 2002).

2.3 Pre ention of ARJ
Nutrition and environmental conditions are important for the pre, ention of ARI. Some things to remember to prevent ARI are:

a. Promote child immunity with immunization.

b. Maintain personal and environmental cleanliness.

c. Preventing children related to ARI patients.

d. Make sure the child has good nutrition. Businesses that can be done so that the baby has good nutrition include: giving ASI until the age of two years, providing solid food according to age, providing food that contains nutrition weighing the baby regularly e ery month to the Integrated Service Post (Posyandu) and health checks (MOH RI, 2002). 2.4 Exclusi e breastfeeding
Exclusive ' astfeeding is that babies are only given breast milk until the age of six . onths without the addition of other liquids such as formula milk, oranges, honey, tea

ter, and water and without additional food such as bananas milk porridge biscuits, rice porridge and rice team ( Kristiyansari 2009.

Breast milk is the first and ' n food for babies. Breast milk contains carbohydrates in the form of lactose. Breast milk fat contains polyunsaturated fatty acids (polyunsaturated fatty acids). The main protein is a type of lactalbumin that is easily 1 tested. Breast milk contains many vitamins and minerals. Breast milk also contains anti-infectious substances (Sidi, 2004).

Colostrum is the first fluid secreted by the breast glands from day l to day 3. Colostrum is yellowish thick and somewhat sticky. Colostrum contains high levels of protein especially globulin and antibodies

## II . MATERIAL AND METHOD

This research was conducted at the RSUD dr. Soekarjo 2015. This type of research used is explanatory research namely explaining the relationship between research variables and testing hypotheses that ha e been formulated previously (Mahfoedz et al 2005). The research design is Cross Sectional where data concerning independent ariables or risk and dependent or effect variables, will be collected at the same time (Notoatmodio, 2005).

Population The amount in this study were infants aged 6-12 months at the RSUD dr. Soekarjo 2015 as many as 106 babies. Respondents are respondents from the sample. Determination of the sample by simple random sampling (simple random sampling) ie ev ery population has the same opportunity to be used as a research sample (Sugiyono 2006). Primary data collection is done by interview. Primary data consist of respondent characteristics and exclusive breastfeeding data.

so that it can pro : e protection to infants against infection until the age of 6 months (Kristiyansari 2009). The benefits of exclusive breastfeeding for infants are numerous including the composition and volume of breast milk sufficient for growth and development until the age of 6 months. Breast milk is easy to digest because it contains high levels of nutrients needed by infants aged 0 - 6 months. Breastfeeding is a means to establish a loving relationship between mother and child. Exclusive breastfeeding will increase endurance so that babies are not susceptible to disease (Sidi, 2004) Infants who are exclusi ely breastfed will be healthier and rarely sick compared to babies who are not exclusively breastfed (MOH RI,2001). 14 day s to show the acute process.

Respondent characteristics include age, education and occupation.

Secondary data were taken from medical records of RSUD dr, Soekarjo 2015, the ISPA incident data. The analysis of this study uses a simple logistic regression statistical test to determine the effect of one independent ariable on one dependent variable than has a nominal scale with two categories (Sabri L and Priyo S. 2008).

## III. RESULTS

Characteristics of Respondents Age

The age of respondents is mostly in the age group 21-35 years that is 87 respondents (82.1 %) and at least aged> 35 years are 5 respondents (4. 7%). The most age included in the group of healthy reproductive age means a good time for a woman to conceive and give birth. At the age of 20-35 years a woman can still raise and care for children to the maximum . Women who give birth at a

healthy reproductive age are expected to still be able to breastfeed their babies optimally. (see table I). Education Most respondents' education completed junior high / MTs by 42 respondents (39 . 6%) and at least not graduated from elementary school b) 3 respondents (2 .. 8%). Some people in the Wedarijaksa Community Health Center in Pati Regency have fulfiUed the 9-year education program, but health awareness is still lacking. Education alone is not enough to improve healthy li ing behav ior including exclusive breastfeeding, but it still needs to be supported by other factors namely the know ledge and motivation of respondents in gi ing exclusive breastfeeding to their babies (see table 1 ). Occup ation Most respondents did not work as many as 74 respondents (69.8%) and at least worked as many as 4 respondents farmers (3.8%). Most respondents do not work because they take care of household needs and prepare e erything for their children and husband at home. Res&ndents who did not work mostly did not give exclusive breastfeeding to their babies because in the first 3 days after gi ing birth breastfeeding did not come out adequately. Therefore some of them give formula milk, but after milk comes out they giv e only breast milk (see table 1).

Exclusive breastfeedig Most respondents did not give exclusive breastfeeding to their babies, namely 85 respondents (89.2%) and only 21 respondents (19.8%) in the Wedarijaksa II Puskesmas Work Area in Pati District, ere given exclusive breastfeeding (see table 1). Previous research conducted by Utomo (2008) in Kesambi Village, Mejobo Subdistrict, Kudus Regency revealed that as many as exclusi ely breastfed babies 17.9%. The benefits of giving a very large exclusive aeastfeeding has not motivated many mothers to give exclusive breastfeeding to their babies Some reasons that cause mothers not to gi etclusive breastfeeding to their babies include assuming that breast milk is inadequate, mothers work outside the home assume formuua milk is better and more practical than breast milk as well as fears the body of the mother becoming fat (Sulistiyoningsih 2011). ARI event ARI event The results showed that as many as 55 babies (55.7%) had ever had ARI. Infants who ha e been exposed to ARI are greater than those who ha e never had ARI (see table 1 ). This figure is in accordan WHO estimates (2003) which states as many as 40% -60% of the number of visits at the health center is ISPA diseas (http ://vfl w .klinikGJo .id).

Characteristics of respondents in the Working Area of Wedarijaksa II Health Center Pati Pati in 2009, can be seen in full in table l. Occurrence of ARI and Exclusive Breastfeeding

The results showed that infants with exclusive breastfeeding who 'Were exposed to ARI were 14 infants (66. 7%) while those who were not exposed to ARI were 7 infants (33.3%). In the group of infants without exclusive breastfeeding who Were exposed to ARI as many as 52 babies (61.2%) while those , ho were not exposed to ARI were 33 infants (38.8%). Exclusive breastfeeding

## IV. CONCLUSION

Infants in the Wedarijaksa II Community Health Center in Pati Regency who recei ed exctve breastfeeding were 19.8%. There is an effect of exclusi e breeding on the incidence of ARI in infants in the Working Area of Wedarijaksa II Puskesmas Pati Regency (p value= 0.025; pre alence ratio = 0.317

counseling about \. ay s to give exclusive breastfeeding and its benefits to mothers especially during pregnancy and after delivery.

## V. DISCUSSION

Statistical test results, ith simple lotic regression showed that there was an effect of exclusive breastfeeding with the incidence of ARJ in infants in the workin area of Pati District Wedarijaksa II Public Health Center (p alue = 0.025) hile the pre alence ratio of 0 .317 meant that infants who were not exclusively eastfed had a risk chance of 32% occur ARI compared to babies who get exclusi e breastfeeding. The results of this study are in accordance with t them) that breast milk is needed for baby's health. Breast milk is the best food for babies. Breast milk is nee for baby's health and optimally supports the groi th and development of the baby. The baby who is exclusively breastfed v ill get aH the excess milk and his nutritional needs are maximally fulfilled so that he v m be healthier more resistant to infections, not susceptible to allergies and less sick ulistiyoningsih, 2011). The results of this study are the same as the results of a fonducted by Ariefudin et al (2009) about the relationship of exclusive breastfeeding to the incidence of acute respiratory infections (ISPA) in infants. months in Posyandu Tegal Timur Subdistrict, Tegal City, which shows a significant relationship between exclusi e breastfeeding for the incidence acute respiratory infections in infants 0-12months P VALUE = 0,000 (P <0.05).

## REFERENCES

Anonymous, 2011. Acute Respiratory Infection, http://www.klinikita.co.i.d/25_ISPA_%28_Infeksi_Sa]uran_Papasan_Akut_%29.html accessed on May 9

Ariefudin, Y et al. 2009. The Relationship of Exclusive Breastfeeding to ARI Occurrence in Infants Age 0ϕ12 Months (Observational Analytic Study at East Tegal Posyandu Tegal City). http://yanuar.wordpress.com/2010/03/1 l/help-pem berian-asi-ekslusi-adapadap-kedian• ispa/ accessed 9 May 2011

RI Ministry of Health 2002. Respiratory disease. Jakarta.

The Ministry of Health of the Republic of Indonesia 2001. Advantages of ASI and the Benefits of Breastfeeding, http://www.gizi.net/asi/down-load/• KEUNGGULAN-%20ASI%20DAN% 20 BENEFITS% 20MENYUSUl.doc. accessed May 9, 2011

Kristiyansari, W. 2009. ASI Breastfeeding & Realizing. Nuha Medika, Yogyakarta, Mahfoedz I et al. 2005. Research Methods in the Field of Health, Nursing and Midwifery. Fitramaya, Yogyakarta.

Notoatmojo S. 2005. Health Research Methodology. Rineka Cipta. Jakarta.

Children Room below Tasikmalaya City Hospital. 2015. Disease Table. City of Tasikmalaya

Sabri Land Priyo, S. 2008. Health Statistics. Rajawali Pres. Jakarta

Sidi, I.P.S et al. 2004, Benefits and