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Mp-Asi Giving Relationship With Diarrhea In Infants
In Helvetia Health Center Medan City 2014

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ABSTRACT

According to The World Health Report 2005, the newborn mortality rate is 20 per 1,000 live births. The infant mortality rate in Indonesia of the World Population Data Sheet USAID 2010, about 30 per 1,000 live births, diarrhea is one of the first cause of death in infants in the amount of 31.4%, 23.8% and pneumonia, meningitis / encephalitis 9.3%. The incidence of diarrhea increased after the baby is getting extra food. Helvetia Health Center Medan reported from 157 babies who are sick, with diarrhea was 48 infants (30.57%). This study aims to determine the relationship of complementary feeding with infant diarrhea. This study is a description of correlative using secondary data. The population in this study were all babies at the health center in Medan Helvetia since May s / d in June 2012 as many as 157 people and entirely sampled (total sampling). Analysis of univariate and bivariate data. The results of this study found as many as 48 people (30.57%) infants with diarrhea. Based on the provision of complementary feeding, the most experienced diarrhea is duly early complementary feeding 41 people (39.42%), the results of the statistical test Chi-Square values obtained X2 count> X2 table (11.367> 3.841) there is a relationship MP ASI with diarrhea in infants. Expected at the health center in Medan Helvetia's always good counsel in the building (through SIAs) and outside the building (through Posyandu) about exclusive breastfeeding and supplementary feeding so the infant mortality caused by diarrhea can be reduced.

1. BACKGROUND

Based on the report Millennium Development Goals, MDG 4 target associated with the Infant Mortality Rate, Infant and Neonatal continued to decline. Data Surveying the Indonesian Demographic and Health (IDHS) in 2007 showed the Infant Mortality Rate of 44/1000, 34/1000 Infant Mortality and Neonatal Mortality 19/1000 (Rahayu E, 2011).

According to The Word Health Report 2005, the newborn mortality rate in Indonesia is 20 per 1,000 live births. The infant mortality rate in Indonesia, according to data compiled from the World Population Data Sheet USAID 2010 at around 30 per 1,000 live births in 2009 in all countries of ASEAN and SEARO, while the results of the 2007 IDHS estimates the IMR of 34 per 1,000 live births (MOH RI, 2010).

According to data compiled by Indonesia Demographic Health Survey of 2008, the infant mortality rate in 2007 calculated the previous five years ie 34 per 1,000, while in Deli Serdang infant mortality rate in 2007 of about 2.67 per 1,000 live births (North Sumatra Provincial Health Office, 2008).

The infant mortality rate from birth to the age of one year in 2007, there were 84 out of 1,000 live births (Ministry of health RI, 2009). The three major causes of death in infants aged 29 days to 11 months is a diarrheal disease, pneumonia, and meningitis / encephalitis with a proportion of 31.4% sequentially, 23.4%, and 9.3% (Almatsier, 2010).

Based on the results of Health Research (Riskesdas) in 2007 conducted by the Ministry of Health of North Sumatra province in 2007 showed that the cause of death in infants in the group 29 days - 11 months, namely diarrhea 31.4%, 23.8% and pneumonia, meningitis / encephalitis 9.3% (North Sumatra Provincial Health Office, 2007).

Diarrheal disease still is one of the major diseases in infants and children in Indonesia. It is estimated morbidity rate ranged between 150-430 per thousand population annually (Yeyeh, 2010).

Based on data subdis P2P (Prevention and Eradication of Disease) Health Office of North Sumatra province, diarrheal disease is a disease that ranks in the top 10 most prevalent diseases (new cases) in outpatient and inpatient entire Hospital of North Sumatra province with a

percentage of 43.66 % while patient visits throughout the North Sumatra provincial health centers diarrheal disease ranks second most diseases suffered by patients with a percentage of 34.55% (North Sumatra provincial Health Office, 2007).

Based on the WHO study (2000) in six developing countries, the risk of infant death between the ages of 9-12 months increased by 40% if the baby is not breastfed. For infants under two months, the death rate is increased to 48% (Roesli U, 2010).

Based Research Morley (1997) the incidence of diarrhea began to increase when the child first about food additives, food contaminated much more easily lead to diarrhea in children that is why it is important to continue breastfeeding, avoiding bottle feeding and full attention of the food hygiene of children (Suharyono, 2008)

According to data from the North Sumatra Provincial Health Office in 2007 on the scope of exclusive breastfeeding was obtained exclusive breastfeeding North Sumatra coverage 15.12%, while in the city of Medan by 1.51%, Deli Serdang regency of 22.68% (North Sumatra Provincial Health Office, 2008). According to data from the Department of Health in 2008 on the scope of exclusive breastfeeding figures obtained exclusive coverage decreased from the previous year that exclusive breastfeeding North Sumatra coverage of 11.20%, while in Medan increased from the previous year by 2.56%, the other with the District Deli Serdang decreased with coverage of exclusive breastfeeding at 19.33% (North Sumatra Provincial Health Office, 2007). Based on data obtained from the health profile of Indonesia in 2010 obtained the percentage of infants who receive complementary feeding 4-12 months of age tend to have increased ie 34.44% in 2006 increased to 68.8% in 2007 and in 2008 reached 73.5% (MOH RI, 2010). Diarrheal disease still is one of the major diseases in infants and children in Indonesia. It is estimated morbidity rate ranged between 150-430 per thousand population annually (Yeyeh, 2010). Based on data subdis P2P (Prevention and Eradication of Disease) Health Office of North Sumatra province, diarrheal disease is a disease that ranks in the top 10 most prevalent diseases (new cases) in outpatient and inpatient entire Hospital of North Sumatra province with a percentage of 43.66 % while patient visits throughout the North Sumatra provincial health centers diarrheal disease ranks second most diseases suffered by patients with a percentage of 34.55% (North Sumatra provincial Health Office, 2007). According to data of morbidity in Puskesmas Medan Helvetia 2014 infant morbidity rate of 30% due to diarrhea (Puskesmas Medan Helvetia, 2014).

2. METHODS

The study was conducted in Puskesmas Helvetia Medan City from February s / d July 2014. The data was collected from date 13 s / d July 14, 2014. This research is a survey description of correlative with cross sectional method where the independent variables and the dependent variable studied simultaneously and in one time aimed to determine the relationship giving complementary feeding with infant diarrhea in Puskesmas Medan Helvetia 2014. The population is all a baby at the health center in Medan Helvetia since May s / d in June 2014 as many as 157 people. Sample is total sampling that all babies in health centers Helvetia Medan city since May s / d in June 2014 as many as 157 people.

The data used in this research is secondary data collected from medical record Helvetia Medan City Health Center. Data collector using a dummy table Data analysis was performed univariate and bivariate data analysis.

1. Univariate data analysis aimed to produce frequency distribution and percentage of each variable.

2. Analysis of bivariate data used to examine the relationship giving complementary feeding with infant diarrhea by using statistical test Chi-Square.

$$X^2 = \sum \frac{(0-E)^2}{E}$$

3. THE RESULTS AND DISCUSSION

.1. Univariate Data Analysis
Distribution of giving complementary feeding in infants at Puskesmas Medan Helvetia 2014

No	MP ASI	Number (People)	Percentage
1	Early	104	66,20
2	Appropriate	53	33,80
	Total	157	100

**Distribution of Baby Diarrhea Case
At Puskesmas Helvetia Medan
In 2014**

No	Diarrhea	Number (people)	Percentage
1	Yes	48	30,60
2	No	109	69,40
	Total	157	100

The results were analyzed by Chi-square test (X2) show an association with MP ASI with diarrhea in infants with α = 0.05, df = 1 value obtained and the result is a table X2 X2 count is 3,841 and the result is 11.367. Where X2 count> X2 table (11.367> 3.841). This is consistent with the theory put forward by Suharyono (2008) the incidence of diarrhea began to increase when the child is first exposed to food additives, food contaminated much more easily lead to diarrhea in children because of the food that has been contaminated there are germs that can cause the system to channel digestibility disturbed eg anaerobic bacteria (eg E. coli) through re-conjugation bile acids in the intestine causing hiperos molarity, this situation causes osmotic in the gut cavity rises, causing a shift of water and electrolytes into the intestinal cavity. Fill cavity excessive intestine stimulates the bowel to remove it causing diarrhea. According Triyanto (2011) in his research entitled The Relationship Between Granting Complementary feeding Early With Incidence Diarrhea in Infants 0-6 Months in Puskesmas Aek Goti Silangkitang District of South Labuhan Batu Regency result that 45% of infants had to get complementary feeding at the age of 5-6 months , 42.5% 3-4 months of age, and 12.5% aged 0-2 months. Meanwhile 65% of infants aged 0-6 months in the category has never had diarrhea, 35% had experienced diarrhea, of which 25% of them had experienced diarrhea one time, 7.5% had experienced diarrhea 2 times and 2.5% had experienced diarrhea more than 2 times. Results of statistical analysis showed that introducing early complementary feeding is positively associated with the incidence of diarrhea in infants 0-6 months (r = 0287).

According to Siska (2009) in his research entitled Relationship Providing complementary feeding and the incidence of diarrhea and nutritional status of children aged 6-12 months in Puskesmas Simalingkar result that there is a relationship giving complementary feeding patterns on the nutritional status and the incidence of diarrhea infants aged 6-12 month in which the application of a provision of complementary feeding in infants who do not conform to contribute to the malnutrition status of 55.8% and 9.6% bad and their babies suffer symptoms of diarrhea contributes to the state of the nutritional status of infants less than 65.9% and bad 12.2%. Judging from the results of the study of 157 babies who are sick at the health center in Medan Helvetia there are 104 infants (66.20%) have been given complementary foods at the age of 0-6 months by his mother. According to the assumptions of researchers in this study, the provision of complementary feeding were significantly associated with the occurrence of diarrhea in infants due to the provision of complementary feeding processing, storage, presentation and delivery of the wrong complementary feeding may increase the risk of diarrhea. Errors in food processing, for example in infants aged 6-9 months had been given solid food is a type of food that should be filtered / creamed. It can cause diarrhea due to carbohydrate that is not absorbed will result in osmotic load in the intestine, resulting in pathological conditions that damage to the mucosa of the small intestine, especially mikrovilli with cell epitelnya so that the

muscles of the wall of the bowel its peristaltic motion decreased as a result of bacteria overgrowing can then arise diarrhea.

Errors in food storage such as food stored over time, example: food the next morning was given again in the afternoon. It can stimulate the growth of fungi such as Candida fungi that suppress lactase intestinal mucosa, resulting in these mushrooms make lactose mal absorption in the intestinal wall and causes osmotic rises in the cavity of the intestine, causing a shift of water and electrolytes into the intestinal cavity. Fill cavity excessive intestine stimulates the intestine to secrete its causing diarrhea.

Errors in the presentation of the food, for example at the time of feeding a child's diet is not closed so the food was plagued by flies as an agent carrier of germs, the food is then eaten by children to arrive in the intestines, the bacteria that remove toxins then this toxin stimulates intestinal wall increases the secretion of water and electrolyte result of excessive intestinal cavity contents stimulates the bowel to remove it, causing diarrhea. Thus there is a relationship giving complementary foods to the occurrence of diarrhea in infants. So the results of this study did not find the gaps between research and theory.

4. CONCLUSIONS AND RECOMMENDATIONS

1) Conclusion
   Based on the results of research on the relationship Giving breast milk with infant diarrhea in Puskesmas Medan Helvetia in 2014 can be concluded as follows:
   a. The number of infants who had diarrhea in the health center of Medan Helvetia in May to June 2014 as many as 48 people out of 157 babies.
   b. There is a complementary feeding relationship with the occurrence of diarrhea in infants.
   c. With the results of the statistical test Chi-Square, where X2 count> X2 table (11.367> 3.841). Thus there is no gap between research and theory.

2) Suggestion
   a. As for suggestions that can convey to the authors of this study are as follows: It is suggested to Helvetia Medan City Health Center to provide counseling both within the building (through SIAs) and outside the building (through Posyandu) about exclusive breastfeeding and Feeding.
   b. It is suggested to Prodi D-III Midwifery Medan to add books related to the incidence of diarrhea.
   c. It is recommended to further researchers to conduct further research into the different variables.

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