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ORIGINAL ARTICLE

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THE RELATIONSHIP BETWEEN KNOWLEDGE AND PARENTS' ATTITUDE WITH ARI INCIDENT IN CHILDREN UNDER FIVE YEAR AT PITU COMMUNITY HEALTH CENTRE MIDDLE TOBELO DISTRICT, NORTH HALMAHERA REGENCY.

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ABSTRACT

ARI is one of the major causes of morbidity in infants in developing countries, including in Indonesia. Incidence of respiratory infection in infants can be affected by several factors such as environment at home, parental knowledge factor of ARI. A good knowledge of parents is expected to reduce the incidence of respiratory infection in infants, as well as a healthy environment can reduce the incidence of respiratory infection in infants.

The purpose of this research was to determine the relationship between parental knowledge about the incidence of ARI in infants in the working area of Pitu Community Health Centre, Middle Tobelo District. The research method used was correlative Descriptive. The samples were 30 parents who have babies in the working area of Pitu Community Health Centre, Middle Tobelo District with a sampling technique using proportional random sampling of data obtained from a questionnaire study of knowledge about the incidence of ARI and ARI questionnaire.

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Data analysis was performed by using Chi Square test. The results showed 16 respondents (53,3%) had a good knowledge of ARI, 16 respondents (53,3%) had sufficient knowledge, and 6 respondents (20,0%) have less knowledge. There were 14 infant respondents (46,7%) had respiratory infections while 10 other infant respondents (33,3%) experienced no incidence of ARI. The results of Chi Square test statistic 30 respondents (100%) = 0.003 and the attitude with incidence of ARI =0,001. The conclusion of the study had shown that there is a relationship between parental knowledge about ARI and the incidence of ARI in infants in working area of Pitu Community Health Centre, Middle Tobelo District.

INTRODUCTION

World Health Organization (WHO) estimates the incidence of upper respiratory tract infections (ARI) in developing countries with under-five mortality rates per 1000 live births is 15% -20% per year at the age of five. In Indonesia, infection (ARI) always ranks first cause of death in the group of infants and toddlers. (1)

Based on the prevalence of upper respiratory infection (ARI) dIndonesia has reached 25% with a range of events that is around 17.5% -41.4%. In addition, ARI is also often in the list of the 10 most devotions in hospitals. Mortality survey conducted, ARI in 2016 places ARI as the largest cause of infant death in Indonesia with a percentage of 32.10% of all under-five deaths. (2)

According to the profile of the North Maluku health service in (2016) sufferers of Upper Respiratory Infection (ARI) 16.4%. (3)

Data from the health department in North Halmahera District sufferers who experience disorders of the Upper Respiratory Tract Infection (ARI) 17.7% of children under five. This proves that there are still many children under five who have Upper Respiratory Infection (ARI). (4)

And from the data of the Pitu Health Center from July to December2018 and in July there were 153 toddlers treated at the Pitus Puskesmas as many as toddlers, August 75 toddlers, September 132 toddlers, october 78 toddlers, november 57 toddlers, and in december 60 toddlers, then the number of all toddler patients in Puskesmas Pitus are 550 toddlers and based on data obtained from Puskesmas there has been no mortality rate. Based on the data above, researchers are interested in conducting research on "The Relationship between Knowledge and Attitudes of Mothers with Occurrence of Upper Respiratory Infection in Pitu Health Center, Central Tobelo District".

METHOD

This type of research is a descriptive analytic study with cross-sectional study approach in which the independent variables and dependent variables are measured at the same time this research instrument uses a questionnaire, the research questionnaire consists of 4 parts namely, to explore demographic data containing the identity of the

respondents including from, Name, age, education, occupation and in the second part is the study of knowledge that is giving 10 questions using the Gutman scale and with a good category if \geq nikai is the median and less good if $<$ the median value. In the third part is to assess the mother's attitude variable that is giving 10 questions using a Likert scale with a good category if med the median value and less good if $<$ the median value. The fourth part is to examine the ISPA incidence variable in infants using observation sheets.

RESULTS

5. 1.1. Overview of Research Locations

Pitu Health Center is located in North Halmahera District, Central Tobelo District. Pitu Health Center covers 9 target villages and the location of Pitu Health Center has the following regional boundaries:

- The south is bordered by Kali Upa village.
- The north is bordered by the village of Tanjung Niara.
- The east is bordered by the ocean.
- West side is bordered by Wko Village.

5.1.2. Description of Research Results

This research is a quantitative study with cross sectional design, where the independent and dependent variables are examined at the same time as the study is conducted, which aims to determine the Relationship between Knowledge and Attitudes of mothers with Ispa events in infants in pitu health centers in Tobelo Tengah District, North Halmahera Regency.

5.1.3. Characteristics of Respondents

Table 5.1 Frequency Distribution of Respondents by Age of toddlers' parents in Pitu Health Center, Central Tobelo District

Age of Respondent	N	%
21-30 Years	17	56,7
30-40 Years	8	83,3
>40 Years	10	33.3
Total	30	100.0

Based on the table above, it shows that of the 30 respondents, in the 21-30 years age group that is 17 respondents (56.7%), while the age group 31-40 years is as many as 8 respondents (26.7%), and the age group > 40 years is as many as 5 respondents (16.7%).

Table 5.2. Frequency Distribution of Respondents based on the level of education of parents of children under five in the Pitu Health Center, Central Tobelo District.

Education Respondent	N	%
Elementary School	5	16.7
Junior High School	9	30.0
Senior High School	12	40.0
College School	4	13.3
Total	30	100.0

Based on the table above shows that as many as 5 respondents (16.7%) who were educated last elementary school, 9 respondents (30.0%) who were educated last junior high school, 12 respondents (40.0%) who were educated last high school and as many as 4 respondents (13.3%) who were educated last S1 / D3.

Table 5.3 Distribution of Frequency of Respondents based on level of work in Puskesmas Pitu, Central Tobelo District.

Job Respondents	N	%
PNS	4	13.3
IRT	16	53.3
Private	10	33.3
Total	30	100.0

Based on the table above shows that as many as 4 respondents (13.3%) work as civil servants, 16 respondents (53.3%) work as IRTs, 10 respondents (33.3%) work as private employees.

5.1.4. Univariate Analysis

Univariate analysis was carried out to see the frequency distribution of data from both dependent and independent data in research on the relationship of knowledge and attitudes of mothers to ARI events in infants at the Pitu Health Center.

Table 5.4. Frequency Distribution of Respondents based on the knowledge of parents in Pitu Health Center, Tobeloh Tengah District.

Knowledge Respondent	N	%
Not Good	16	53.3
Good	14	46.7
Total	30	100.0

Based on table 5.4. showed that as many as 16 respondents (53.3%) who had knowledge were in the unfavorable category and 14 respondents (46.7%) who had knowledge were in the good category.

Table 5.5 Distribution of Frequency of Respondents based on attitudes of children under five years old at Pitu Health Center, Central Tobelo District.

Attitude of Respondents	N	%
Bad	14	46.7
Good	16	53.3
Total	30	100.0

Based on table 5.5 shows that as many as 14 respondents (46.7%) who have attitudes are in the unfavorable category and 16 respondents (53.3%) who have attitudes are in the good category.

Table 5.6 Frequency distribution based on ARI incidence in children under five years old at Pitu Health Center, Central Tobelo District.

ARI occurrence	N	%
Weight	6	20.0
Medium	14	46.7
Lightweight	10	33.3
Total	30	100.0

Based on table 5.6 shows that as many as 6 respondents (20.0%) experienced severe ARI events, 16 respondents (46.7%) experienced moderate ARI events and 10 respondents (33.3%) who experienced mild ARI events.

5.1.5 Bivariate Analysis

Bivariate analysis is used to see whether there is a relationship and attitude of the mother with the incident of ISPA in toddlers at the Pitu Health Center, Central Tobelo District.

Table 5.7 Distribution based on the relationship of Knowledge with the incidence of ARI in children under five years old at Puskesmas Pitu Kecamatan Tobelo.

		ARI Occurrence In Toddlers Total Sig			
		Light	Medium	Weight	
Poor Mother's	Knowled ge	1 3.3%	12 40.0%	3 10.0 %	16 53.3%
	Good	5 16.7%	2 6.7%	7 23.3 %	14 46.7%
Total		6 20.0%	14 46.7%	10 33.3 %	30 100.0%

Based on table 5.7 shows that as many as 16 respondents (53.3%) who have poor knowledge, there are 1 respondent (3.3%) who experienced a severe ARI, 12 respondents (40.0%) who experienced a moderate ARI and 3 respondents (10.0%) who experience mild ARI. While as many as 14 respondents (46.7%) who have good knowledge, there are 5 respondents (16.7%) who experienced severe ARI events, 2 respondents (6.7%) who experienced moderate ARI events and 7 respondents (23.3%) who experienced mild ARI events. Based on the results of the analysis using the Chi-Square test obtained a significant value of 0.003 or smaller than the value of α 0.05 thus it can be concluded that there is a significant relationship between knowledge and the incidence of ARI in infants in the Pitu Health Center, Tobelo Tengah District.

Table 5.8 Distribution based on the relationship of Attitudes with the incidence of ARI in children under five years old at Pitu Health Center, Central Tobelo District.

		ARI Occurrence In Toddlers			Total Sig
		Light	Mediu	Weigh	
					t
Poor	Atti	3	11	0	14
Moth	tude	10.0%	36.7%	0.0%	46.7%
er's					
	GO	3	3	10	16
	OD	10.0%	10.0%	33.3.0%	53.3%
Total		6	14	10	30
		20.0%	46.7%	33.3.6%	100.0%

Based on table 5.8 shows that as many as 14 respondents (46.7%) who have a bad attitude, there are 3 respondents (10.0%) who experienced severe ARI, 11 respondents (36.7%) who experienced moderate ARI and 0 respondents (0.0%) who experience mild ARI. While as many as 16 respondents (53.3%) who have good knowledge, there are 3 respondents (10.0%) who experienced severe ARI events, 3 respondents (10.0%) who experienced moderate ARI events and 10 respondents (33.3%). Based on the results of the analysis using the Chi-

Square test obtained a significant value of 0.001 or smaller than the value of α 0.05 thus it can be concluded that there is a significant relationship between attitude and ARI events in infants in the Pitu Health Center, Middle Tobelo District.

Based on Primary Data processing, the level of maternal knowledge about ARI is still in the poor category, which is 16 respondents or 53.3%. This can happen because seen from the background of different levels of education of mothers and have an average level of education at the junior high level of 46.7%, in formal education (SMP) knowledge and information obtained by mothers is still about human health for example diseases that attack the lung organs are still less than optimal or still very lacking (5), education can increase the client's knowledge about health. The knowledge that respondents have from education is still lacking and experience with ISPA. Although ARI events that occur in children repeatedly it can not add to the mother's experience on how to prevent and care for children affected by ARI due to indifference and careless about children's health.

The higher one's education, the higher the level of knowledge. The more knowledge that is obtained, the better the attitude of a person towards the object. Knowledge is the main basis for someone to determine both positive and negative attitudes. A positive attitude can turn into negative if you do not get guidance and vice versa because the attitude has a valence, then a positive attitude can also be increased to be more positive (5).

Based on the results of the cross tabulation in table 5.7 shows that as many as 16 respondents (53.3%) who have poor knowledge, there are 6 respondents (20.0%) who experienced severe ARI events, 14 respondents (46.7%) who experienced moderate ARI events and 10 respondents (33.3%) who experienced a mild ARI. While as many as 14 respondents (46.7%) who have good knowledge, there are 6 respondents (20.0%) who experienced severe ARI events, 14 respondents (46.7%) who experienced moderate ARI events and 10 respondents (33.3%) who experienced mild Ispa events. Based on the results of the analysis using the Chi-Square test obtained a significant value of 0.003 or smaller than the value of α 0.05. Based on the data obtained, it can be concluded

that there is a relationship between maternal knowledge of ARI in toddlers. Ignorance of respondents about the incidence of ARI is caused by the lack of information obtained and do not want respondents to increase knowledge such as finding other information from reliable sources. The ignorance of respondents about the incidence of ARI was also caused due to the lack of parental education from the results of the study found that low maternal education causes low maternal knowledge.

This is in line with research conducted by Intan Silviana (2014) finding that there is a relationship between maternal knowledge about ARI and ARI prevention behavior in children under five p value = 0.003, there is a relationship between maternal knowledge about ARI and ARI prevention behavior influenced by Some of the factors include predisposing factors, namely the knowledge of mothers who are in the category of not good yet not doing well prevention and knowledge of ARI is still minimal.

In line with the research conducted by Dwi Yani Bidaya, Titan Ligita, Meta Trissya (2013) found that there is a relationship between the level of maternal knowledge of ARI prevention behavior in infants obtained p value = 0.003, researchers assume that the incidence of ARI is directly influenced by several factors include: knowledge and behavior of parents. Apart from knowledge and behavior factors, environmental conditions (both outside the home and in the home environment) also influence the ARI.

The same study with research conducted by Paramita Anjanata Maramis, et al (2013), that there is a significant relationship between the level of knowledge of mothers with care efforts for infants with ARI. That the low level of knowledge and skills of the family, especially mothers, is one of the triggers for ARI in infants. Most families who have ISPA infants at home are mothers who do not know how to prevent ARI. that the higher a person's knowledge of ARI, then the number of ARI events that will occur will be lower, and vice versa if someone has low knowledge of ARI, then the number of ARI events that occur will be higher.

High maternal knowledge and positive attitudes still exist ISPA and so also low

knowledge and low attitudes will trigger high toddlers suffering from ARI, this is due to lack of personal experience, lack of information from the mass media, and the influence of others maybe even lack support of others who are not considered important in their environment, there are 3 three factors that cause parents of toddlers suffering from ARI first, namely: facilitating factors where these factors include knowledge and attitudes of parents in dealing with ARI events in toddlers, this factor becomes the behavior that becomes the basis or motivation for his actions due to tradition or habit, trust in others, education level and social economic level. The second enabling factor is the triggering factor for the behavior that enables an action to be carried out. This factor includes the availability of health facilities and infrastructure. The three reinforcing factors, namely this factor, determine whether the health action is supported or not. This factor is manifested in the attitudes and behaviors of the caregivers of parents.

Based on the results of the cross tabulation in table 5.8 shows that there were 14 respondents (46.7%) who had a bad attitude, there were 6 respondents (20.0%) who experienced severe ARI events, 14 respondents (46.7%) who experienced moderate ARI events and 10 respondents (33.3%) who experienced a mild ARI. While as many as 14 respondents (46.7%) who have good knowledge, there are 6 respondents (20.0%) who experienced severe ARI events, 14 respondents (46.7%) who experienced moderate ARI events and 10 respondents (33.3%) who experienced mild ARI events. Based on the results of the analysis using the Chi-Square test obtained a significant value of 0.003 or smaller than the value of α 0.05 thus it can be concluded that there is a significant relationship between attitude and ARI events in infants in the Pitu Health Center in Central Tobelo District. as seen in some respondents who rarely attend immunization programs for children, in addition there are some respondents who prefer to go to traditional places (Dukun) and do not use health facilities to check their health.

However, this is not always used as a basis for assessment because based on the results described in table 5.8 there are respondents who

have good attitude as many as 16 respondents (53.0%) but there are still those who experience severe ARI that is as many as 6 respondents (20.0%). Respondents who behaved well but included suffering from the ARI could also be due to other factors such as environmental factors. In general, mothers know enough about ARI, but sometimes they are not responding to efforts to prevent ARI. This condition is caused due to lack of attention to efforts to live healthy in order to maintain, maintain and improve health so that it is needed for a healthy and clean life.

CONCLUSION

1. The results showed that the majority of respondents' knowledge was in the unfavorable category with frequency (53.3%).
2. The results showed that the majority of respondents' attitudes were in the good category with frequency (53.3%).
3. The results of the study showed that the average incidence of ISPA in toddlers in Pitu Puskesmas in the middle of Tobelo District was included in the moderate category with a frequency (46.7%).
4. The results of the analysis show that there is a relationship between maternal knowledge and the incidence of ARI in infants at the Pitu Health Center in Central Tobelo District with a value of $p = 0.003$.
5. The results of the analysis show that there is a relationship between maternal attitudes and the incidence of ARI in children under five years old at Pitu Health Center, Central Tobelo District with a value of $P = 0.001$.

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