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# Relationship between mother's knowledge and efforts to prevent acute respiratory tract infection (ARI) in under-fives at Tuntungan Health Center 2022

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# **ABSTRACT**

A well-prepared abstract enables the reader to identify the basic content of a document quickly and accurately, to determine its relevance to their interests, and thus to decide whether to read the document in its entirety. The Abstract should be informative and completely self-explanatory, provide a clear statement of the problem, the proposed approach or solution, and point out major findings and conclusions. The Abstract should be 100 to 250 words in length. The abstract should be written in the past tense. Standard nomenclature should be used and abbreviations should be avoided. No literature should be cited. The keyword list provides the opportunity to add keywords, used by the indexing and abstracting services, in addition to those already present in the title. Judicious use of keywords may increase the ease with which interested parties can locate our article.

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## 1. INTRODUCTION

Acute respiratory infection (ARI). The main cause of morbidity and mortality from infectious diseases in the world. Ranked first cause of death in the toddler group. In addition, ARI is also often on the list of the 10 most common diseases in hospitals or first-level health services. Acute respiratory infection (ARI) is a disease that infects the human respiratory tract caused by microorganisms such as bacteria and viruses (Kendari et al,. 2019). Acute respiratory infection (ARI) is a disease of the upper and lower respiratory tract, which can cause a wide spectrum of disease that ranges from asymptomatic or mild infection to severe and fatal disease, depending on environmental factors. ARI is an acute respiratory disease caused by an infectious agent. (Marwati et al., 2019). Knowledge is one of the influencing factors that is very important in the process of changing one's behavior. The level of one's knowledge can be known through their understanding of an information or phenomenon. This understanding will then proceed to implementation, analysis, synthesis, and evaluation to assess a situation. For example, someone who has knowledge of ISPA will be able to distinguish toddlers who are affected by ISPA from those who are not (Niki, 2019). Factors that influence efforts to prevent ARI from individuals and communities, namely heredity, education, environmental behavior, and health services, in achieving optimal welfare or health levels a level of self-awareness is needed about the importance of living a healthy life (Niki, 2019). One of the important strategies in efforts to prevent ARI is the active involvement of family members in special early efforts against ARI

in toddlers. This indicates that the involvement of the mother plays a very specific role because it is the mother who is the first to know that her child has a disease. The mother's efforts in preventing ARI in her child, namely the mother must know about ARI starting from the understanding, causes, signs and symptoms of the travel process diseases, complications and how to treat and care for children when they are sick so they can get treatment as early as possible and already know how to prevent it (Padila et al., 2019).

According to the World Health Organization (WHO) in 2018 the number of ISPA sufferers in New York was 48,325 children, 28% of which were the cause of death in infants aged less than one year and 25% in children under five aged 1-5 years (Claudia F. Dewi, 2018). The prevalence of ARI in 2018 in Indonesia according to the diagnoses of health workers (doctors, midwives or nurses) and the symptoms experienced was 9.3%. This disease is an acute respiratory infection with symptoms of fever, cough for less than 2 weeks, runny nose/stuffy nose and/or sore throat (Gunawan M, 2020). Based on the initial data survey conducted by the researchers to 10 respondents through interviews at the Puskesmas, they did not know how prevention was being carried out and how ISPA was transmitted, mothers' knowledge about ISPA was still lacking and the results of data on acute respiratory infection disease (ARI) in toddlers were the most in the region. The work of the Tuntungan Health Center is in Tuntungan 1 and 2 Villages, with a total of 60 toddlers in 2022 in March.

#### 2. RESEARCH METHOD

The research design used by researchers is an analytic research design using a cross sectional approach. The population in this study were mothers who had toddlers who were exposed to acute respiratory infections (ARI) at the Tuntungan Health Center in Tuntungan Village with a total of 60 toddlers and the sample in this study used the slovin formula with a total of 37 respondents, whether the researcher liked or wore them. The research design used by researchers is an analytic research design using a cross sectional approach. Cross-sectional research is a type of research that emphasizes the time of measurement of the observation data of the independent variables and the dependent variable only once at a time.

#### 3. RESULTS AND DISCUSSIONS

Based on result of the research oh the d=frequency distribution of the demographics characteristics of the respondents including age, education, work, toddler age, gender at the Tuntungan Health Centeryear 2022

Table 1. Frequency Distribution Based on Demographics			
Characteristics	F	%	
Mother's Age (years)			
36-40 (Late adulthood)	5	13.5	
30-35 (Early adulthood)	23	62.1	
21-25 (Late teens)	9	24.3	
Total	37	100	
Education			
SMA/SMK	29	70.3	
$D_3$	3	8.1	
S <sub>1</sub>	5	13.5	
Total	37	100	
Work			
IRT	25	70.3	
Teacher	3 8	8.1	
Self-employed	8	18.9	
Nurse	1	2.7	
Total	37	100	
Toddler Age			
3 year	2	2.7	
4 year	12	32.4	

	Total	23 37	62.2 100
Gender Man		22	50.0
Woman		15	59.9 40.5
	Total	37	100

Based on table 5.1 above, it was found that the majority of respondents aged 30-35 were 23 people (62.1%) and a minority of mothers aged 36-40 were 5 people (13.5%), the majority of respondents with high school/vocational high school education were 29 people (70.3%) ) and minority respondents with D3 education were 3 people (8.1%), the majority respondents were housewives (IRT) as many as 25 people (70.3%) and minority respondents were nurses as many as 1 person (2.7%) majority respondents aged under five years old were 23 people (62.2%), and a minority of children aged 3 years old were 2 people (5.4%), the majority were male as many as 22 people (59.9%) and a minority of female respondents were 15 people (40.5%).

Table 2. Frequency Distribution of Respondents Based on mother's knowledge at the

	ealth Centeryear 202:	2
Mother's knowledge	(f)	<u></u>
Good	27	73.0
Enough	10	27.0
Total	37	100

Based on table 5.2, it was found that 27 (73.0%) mothers' knowledge was in the good category, 10 (27.0%) were sufficient.

Table 3. Frequency Distribution of Respondents Based on Respiratory Infection Prevention EffortsAcute Respiratory Tract (ARI) at the Tuntungan Health Center in 2022.

ISPA prevention	(f)	%
Good Enough	29 8	78.4 21.6
Total	37	100

Based on Table 5.2, it was found that efforts to prevent acute respiratory infections (ARI) in toddlers were in the good category 29 (78.4%), enough 8 (21.6%)

Table 4. Cross tabulation results between mother's knowledge and efforts to prevent urinary tract infections Acute Respiration (ISPA) in Toddlers at the Tuntungan Health Center in 2022

	ARI prevention efforts						p – value
Knowledge mother	Good		Enough		Total		
	f	%	f	%	f	%	
Good	26	96.3	1	3.7	27	100	0,001
Enough	3	30.0	7	70.0	10	100	

Based on table 3 the relationship between mother's knowledge and efforts to prevent acute respiratory infections (ARI) it was found that there were 26 out of 27 respondents (96.3%) had good knowledge with good prevention, and there were 7 out of 10 respondents (70.0%) with sufficient knowledge and sufficient ARI prevention. Based on the results of the chi – square statistical test, the results obtained were p - value = 0.001 (P < 0.05) so that it can be concluded that there is a significant relationship between maternal knowledge and the prevention of acute respiratory infections (ARI) at the Tuntungan Health Center in 2022.

# 4. CONCLUSION

The results of the Chi-square statistical test obtained a value of p = 0.001 which is said to be (p <0.05), which means that there is a relationship between mother's knowledge and efforts to prevent

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acute respiratory infections (ARI) in toddlers at the Tuntungan Health Center in 2022. Research results Vol & February, (2017) found that there was a relationship between the level of mother's knowledge of ISPA prevention behavior. Prevention of ARI in toddlers, the role of the family is needed, especially mothers. Prevention of ARI incidents is inseparable from the role of parents who must know ways to prevent ARI. Actions to prevent disease, including health behavior, are matters relating to a person's actions or activities in maintaining and improving his health. This includes personal hygiene, choosing food, sanitation, and so on. ISPA disease can be prevented by knowing about ISPA, adjusting the toddler's diet, creating a comfortable environment, and avoiding trigger factors.

Related to the research (Lekat et al., n.d.) the results of r count were 0.365 and p = 0.048 (p  $<\alpha$ ) the alternative hypothesis was accepted (Ha) was determined and the null hypothesis (Ho) was rejected, meaning that there was a relationship between the level of knowledge and attitudes of mothers about preventing the transmission of ARI in infants aged 0-12 months. Whereas 8 respondents (26.67%) had attitudes and knowledge in the good category and (3.33%) had less knowledge and good attitudes. This may be due to the difference in the education level of the respondents, of which almost half (46.67%) of the respondents had a high school education and (26.67%) had a university education, and the rest (16.67%) of the respondents had a junior high school education and the rest (10 %) respondents had primary school education, as well as personal experience, culture and mass media of each respondent.

The results of the study found that there was a relationship between mother's knowledge and efforts to prevent acute respiratory infections (ARI) in toddlers. The better the mother's knowledge, the fewer ARI incidents experienced by toddlers. The existence of knowledge of information such as prevention causes a person to have a positive or negative attitude. Knowledge about prevention can be used by mothers to maintain or improve the health status of toddlers, one of which is the prevention of ARI. Mother's knowledge increases, the incidence of ARI decreases. This can be caused by knowledge providing information to someone in taking action. Mothers who have good knowledge will have a good attitude in carrying out prevention, so mothers will prevent disease rather than treat it.

It is hoped that future researchers will research PHBS (Clean and healthy living behavior) with ARI prevention efforts in toddlers. And for the ARI prevention questionnaire, in the future using observation techniques to make it more effective.

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