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Factors That Influence The Provision Of Complete Basic Immunization In Jambi

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Abstract

Child health problems are one of the important prospects that must be considered by a country. One of the factors that can cause health problems in children is disease transmission. This problem can be prevented by carrying out complete basic immunization activities for infants and toddlers. This study aims to determine what factors are related to the provision of basic immunization to infants in the working area of the Putri Ayu Health Center, Jambi. This research method is quantitative research with a cross sectional approach. The sampling technique used was multistage cluster sampling and obtained 84 respondents. The instrument used by the child is a questionnaire. The results showed that the factors related to the provision of basic immunization to infants in the working area of the Putri Ayu Jambi Public Health Center were mother's education (p-value 0.001), family support (p-value 0.007) and the role of health workers (p-value 0.004). In addition, the mother's occupation and mother's knowledge did not have a significant relationship. The conclusion of this study is that there is a relationship between giving basic immunization to infants in the working area of the Putri Ayu Jambi Public Health Center, namely education, family support and the role of health workers.

Keywords: Immunization, Education, Job, Knowledge, Family Support, Health Worker Role

INTRODUCTION

One of the important prospects that must be considered in every country, including Indonesia, is the problem of child health. One way to find out a child's health status is to see whether the child can survive from birth to infancy and toddlerhood (Harlan 2019). One of the big factors that can cause death in infants is disease transmission. This problem can be overcome by carrying out complete basic immunization activities for infants and toddlers. Immunization is one of several preventive measures that can be taken to reduce infant mortality which aims to prevent infants and toddlers from several infectious diseases. In Indonesia, immunization service efforts are usually carried out by carrying out routine immunizations including, HB 0-7 days done 1 time, BCG 1 time, DPT-HB-Hib 3 times, Polio 4 times, and measles 1 time as well as additional immunizations to reduce morbidity, and deaths from PD3I.

According to UNICEF, there are several risks that will occur if babies do not get complete basic immunization, namely, children are more susceptible to disease, increase the risk of other families becoming seriously ill, can cause disease outbreaks in the environment, decrease quality of life, and decrease life expectancy and children can experience PD3I disease (Khomariah, Suryoputro, and Arso 2018). Based on data from the Jambi City Health Office, the percentage of children who received complete basic immunization in 2020 was 80.2% of the target of 92.2%. This could mean that the performance of the immunization program in Jambi Province was almost successful. Putri Ayu Health Center is the health center with the lowest complete basic immunization coverage in Jambi City in 2020 and 2021 with a percentage of 50.5% and 92.7% respectively. Due to the magnitude of the problem of complete basic immunization at the Putri Ayu Health Center which can affect the health status of children in Jambi City, researchers are interested

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in conducting research with the aim of identifying what factors are related and can affect the coverage of complete basic immunization in the working area of the Putri Ayu Health Center. This research is expected to be used as a reference to increase the coverage of complete basic immunization in Jambi City.

RESEARCH METHODS

This research is a quantitative type of research with an analytic observational design. The approach used in this study was cross-sectional which was carried out in the working area of the Putri Ayu Health Center Jambi in February-March 2023. The population in this study were all infants who lived in the working area of the Putri Ayu Health Center, Jambi City, totaling 698 babies. The sample in this study were 84 mothers of babies who carried out basic immunization in the working area of the Putri Ayu Health Center. The sampling technique used is multistage cluster sampling. Data collection uses a questionnaire that has been tested for validity and reliability. Data processing techniques use the SPSS application with two stages, namely univariate and bivariate. Test the hypothesis using chi square with a value of $\alpha = 0.05$.

RESULTS AND DISCUSSION

Result

- 1. Characteristics of Respondents
 - a. Education

Table 1. Characteristics of Respondents Based on Last Education

Education	\mathbf{F}	%
Elementary school	6	7,1
Junior High School	13	15,7
Senior Highschool	43	51,1
University	22	26,1
Total	84	100

Source: Processed primary data, 2023

Based on the table above, it can be concluded that the respondents with the last education in elementary school were 7.1%, junior high school was 13.15.7%, high school was 51.1%, and university was 22 (26.1%) mothers.

b. Job

Table 2. Characteristics of Respondents Based on Occupation

Job	F	%
Housewife	68	80,9
Entrepreneur	8	9,6
Civil servant	2	2,3
Trader	3	3,6
Teacher	3	3,6
Total	84	100

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Source: Processed primary data, 2023

Respondents who work as housewives are 80.9%, Entrepreneur are 9.6%, civil servants are 2.3%, traders and teachers have the same frequency of 3.6%.

2. Univariate analysis

Table 3. Univariate Analysis Test Results

Variable	\mathbf{F}	%
Mother's education		
Low (Elementary school - Junior Highschool)	19	22,6
Higher (Senior Highschool -University)	65	77,4
Mother's job		
Don't have a job	68	81
Have a job	16	19
Mother's knowledge		
Less knowledge	41	48,8
Good knowledge	43	51,2
Family support		
Lack of support	54	64,3
Support	30	35,7
The role of the Immunization Officer		
Less role	61	72,6
Plays a good role	23	27,4
Completeness of Basic Immunization		
Complete	59	70,2
Incomplete	25	29,8

Source: Processed primary data, 2023

Based on the table above, it can be concluded that most of the respondents had a low level of education, namely 22.6%, while respondents with higher education, namely 77.4%. Most of the respondents are not working with a total of 81%, while the respondents who work are 19%. Respondents with less knowledge were 48.8%, while respondents with good knowledge were 51.2%. Respondents with less supportive families are 64.3%, while respondents with supportive families are 35.7%. Respondents with less immunization officer roles were 72.6%, while those with good roles were 27.4%. Infants who received complete basic immunization were 70.2%, while infants who did not receive complete basic immunizations were 29.8%.

3. Bivariate analysis

a. The relationship between mother's education and complete basic immunization
Table 4. The Relationship between Mother's Education and the Provision of Complete
Basic Immunization to Babies in the Work Area of the Putri Ayu Health Center, Jambi
City, in 2021

		City, iii 2021			
Education -	Immur	Total	P	PR (95%	
Education —	Complete	Incomplete	Total	Value	(95% CI)

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	N	%	n	%	n	%		
Low	7	36,9	12	63,1	19	100		3,158
Higher	52	80	13	20	65	100	0,001	(1,047-
Total	59	70,2	25	29,8	84	100		15,908

Source: Processed primary data, 2023

Based on the table above, it can be concluded that as many as 19 respondents had low education, 7 (36.9%) of them carried out complete basic immunization while 12 (63.1%) of them did not carry out complete basic immunization. Meanwhile, 65 respondents with higher education and 52 (80%) of them carried out complete basic immunization, while 13 (20%) did not carry out complete basic immunization.

Based on statistical tests using the chi square test, the p-value was 0.001 < 0.05, therefore it can be concluded that there is a significant relationship between maternal education and complete basic immunization. From the table there is also a Prevalance Ratio of $3.158 \ (1.047-15.908)$ which can be concluded that mothers with low education will have a risk of 3.158 times greater for not carrying out complete basic immunization.

b. Relationship between Mother's Occupation and Complete Basic Immunization

Table 5. Relationship between Mother's Occupation and Provision of Complete Basic Immunization at the Putri Ayu Health Center in 2021

Occupatio -		Imn	nunizatio	n	_ Total		P	PR
	Complete		Incomplete		_ 13ta1		Value	(95%
	N	%	n	%	n	%	v dide	CI)
Don't have a job	46	67,6	22	32,4	68	100		1,725
Have a job	13	81,2	3	18,8	16	100	0,371	(0,588- 5,062)
Total	59	70,2	25	29,8	84	100	-	3,002)

Source: Processed primary data, 2023

From the table above it can be concluded that there were 68 respondents who did not work, 46 (67.6%) of them carried out complete basic immunization while 22 (32.4%) of them did not carry out complete basic immunization. Whereas in the group of respondents who worked, namely 16 mothers, there were 13 (81.2%) mothers who carried out complete basic immunization and 3 (18.8%) other mothers who did not carry out complete basic immunization.

Based on statistical tests using the chi square test, the results obtained were a P-value of 0.371> 0.05, therefore it can be concluded that there was no significant relationship between mother's occupation and complete basic immunization.

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c. Relationship between Mother's Knowledge and Complete Basic Immunization
Table 6. The Relationship between Mother's Knowledge and the Provision of Complete
Basic Immunization at the Putri Ayu Health Center in 2021

		Imn	nunizatio	n	— Total			PR
Knowled ge	Coi	mplete	Incomplete		– Total		P Value	(95%
8 -	N	%	n	%	n	%	, alac	CI)
Less	8	50	8	50	16	100		2.000
Good	51	75	17	25	68	100	0,068	(1,055-
Total	59	70,2	25	29,8	84	100	-	3,793)

Source: Processed primary data, 2023

Based on the table above, it can be concluded that there were 16 respondents with insufficient knowledge and 8 (50%) of them carried out complete basic immunization and the other 8 (50%) did not carry out complete basic immunization. Then, from the group of respondents who had good knowledge, there were 68 with 51 (75%) of them carrying out complete basic immunization and 17 (25%) of them not carrying out complete basic immunization.

Based on statistical tests using the chi square test, the results obtained were a P-value of 0.068> 0.05 which could be concluded that there was no significant relationship between maternal work and complete basic immunization.

d. Relationship between family support and complete basic immunization Table 7. Relationship between family support and the provision of complete basic immunization for infants in the working area of the Putri Ayu Health Center, Jambi City, in 2021

		Imn	nunizatio	n	Tr.	. 4 . 1		PR
Family support	Con	mplete	Inco	mplete	– Total		P Value	(95%
	N	%	n	%	n	%		CI)
Lack of support	32	59,3	22	40,7	54	100		4,074
Support	27	90	3	10	30	100	0,007	(1,328-
Total	59	70,2	25	29,8	84	100	-	12,495)

Source: Processed primary data, 2023

From the table above it can be concluded that there were 54 respondents who had less supportive families, 32 (59.3%) of them carried out complete basic immunization while 22 (40.7%) of them did not carry out complete basic immunization. In the group of respondents who had supportive families, namely 30, there were 27 (90%) mothers who carried out complete basic immunization and 3 (10%) other mothers who did not carry out complete basic immunization.

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Based on statistical tests using the chi square test, the p-value was 0.007 <0.05. It can be concluded that there is a relationship between family support and complete basic immunization. With a Prevalence Ratio of 4.074 (1.328-12.495), it means that mothers who have less supportive families will have a risk of 4.074 times greater not to carry out complete basic immunization.

e. The relationship between the role of health workers and the provision of complete basic immunization

Table 8. The Relationship between the Role of health workers and the Provision of Complete Basic Immunization to Infants in the Working Area of the Putri Ayu Health

				Center				
Role of			Total P		PR			
health			Incomplete		_ 10	Jiai	Value	(95%
workers	N	%	n	%	n	%	v arue	CI)
Less	37	60,7	24	39,3	61	100		9,049
Good	22	95,7	1	4,3	23	100	0,004	(1,298-
Total	59	70,2	25	29,8	84	100	-	63,100)

Source: Processed primary data, 2023

From the table above it can be concluded that there were 61 respondents with health workers who played a less role, 37 (60.7%) of them carried out complete basic immunization while 24 (39.3%) of them did not carry out complete basic immunization. Whereas in the group of respondents with health workers who played a good role, there were 23 mothers, there were 22 (95.7%) mothers who carried out complete basic immunization and 1 (4.3%) other mothers did not carry out complete basic immunization.

Based on statistical tests using the chi square test, it obtained a p-value of 0.004 <0.05, therefore it can be concluded that there is a significant relationship to the role of health workers by administering complete basic immunization. From the table there is also a Prevelance Ratio of 9.049 (1.298-63.100) which can be concluded that mothers with health workers who do not play a role will have a risk of 9.049 times greater for not carrying out complete basic immunization.

Discussion

Relationship between Mother's Education and Complete Basic Immunization in the Work Area of the Putri Ayu Health Center, Jambi City

It can be seen from the results of the researchers' data processing that more respondents with higher education carried out complete basic immunization than those who did not carry out complete basic immunization. So it can be concluded that the higher the mother's education, the greater the mother's desire to carry out complete basic immunization.

This result is in line with the theory of planned behavior. This theory suggests that a person's behavior is influenced by his intention to perform that action. A mother's education can influence her intention to provide complete basic immunization to her child through factors such as knowledge, attitudes, social norms, and the obstacles she faces. If the mother has a strong intention and believes that immunization is important, then she will most likely carry out complete basic immunization (Suparyanto and Rosad 2020).

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The results of this study are in line with the results of research conducted by Antono who obtained the results of the Spearman correlation test with a value of 0.017 < 0.05, which means that the education level of the mother has a significant relationship to the basic immunization status of infants (Antono Dwi, Mediawati, and Nurhatisah 2021). Tanuwidjaja obtained the results of the chi square test with P = 0.015 < 0.05 (Tanuwidjaja, Azhali, and Azizmih 2019)

In contrast to the results of research conducted by Oktaviana who obtained the results of the chi square test with a value of p = 0.099 > 0.05, which can be concluded that there is no relationship between the education level of the mother and adherence to basic immunization in infants (Oktaviana and Ernawati 2019). Novita Hasiani got the results of chi square P = 0.426 > 0.05 (Simanjuntak 2020).

Based on the results of observations in the group of respondents with higher education but who did not carry out immunizations, it was usually because when the immunization schedule was in progress, the baby who wanted to be immunized was sick so that his health worker was not allowed to carry out the immunization. And after the child recovers, the mother forgets to carry out the immunization until the age of the baby has exceeded the age of this type of immunization.

Relationship between Mother's Occupation and Providing Complete Basic Immunization in the Work Area of the Putri Ayu Health Center, Jambi City

Most of the mothers who were used as respondents were housewives. Researchers assume that working mothers do not have enough time to take their children to health facilities to carry out immunizations, but the facts found in the field are that working mothers can set aside time to take their children to carry out immunizations. Therefore the work is not related to the provision of complete basic immunization.

The results of this study are in line with research conducted by Adhayani who obtained results from the Fisher's exact test with a p = 0.713 > 0.05 (Arda, Hafid, and Pulu 2021). In addition, Ulfa obtained the results of the chi square test with a value of p = 0.333 > 0.05 (Ulfah and Sutarno 2023). Yulina Aswan's research obtained a P value = 0.492 > 0.05 (Aswan and Simamora 2020)

In contrast to the research conducted by Nelvianti, it was inversely proportional to the results of this study, which obtained the results of the chi square test with a p value = 0.002 < 0.05, which could mean that there was a significant relationship between maternal work and complete basic immunization (Suaki, Qariati, and Widyarni 2020). Rahmawati obtained the results of the chi square test with a p value = 0.011 < 0.05 (Hamzah and Hamzah 2022).

The relationship between mother's knowledge and complete basic immunization in the working area of the Putri Ayu Health Center, Jambi City

In this study, the results showed that there was no relationship between mother's knowledge and administration of complete basic immunization, this result is in line with research conducted by Poniyah Simanullang who obtained the results of the chi square test with p=0.228>0.05 which can be concluded that there is no relationship between mother's knowledge and basic immunization for toddlers (Simanullang, Nasution, and Siregar 2022). Nuzulul Rahmi also found that there was no relationship between knowledge and basic immunization with the chi square test obtaining P=0.502>0.05. (Rahmi and Husna 2018).

In contrast to the research conducted by Minda which stated that there was a relationship between mother's knowledge and basic immunization with a p = 0.000 < 0.05 obtained from the chi square test (Septiani and Mita 2020). Purnama gets a value of P=0.001 < 0.05 (Purnama et al. 2022).

From the results of observations during the study, it was found that many mothers answered questions by guessing without knowing the real answers, so the researchers assumed that mothers

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with good knowledge were not necessarily all really good because the answers they filled in by guessing were mostly correct.

Relationship between family support and complete basic immunization in the working area of the Putri Ayu Health Center, Jambi City

From the results of data analysis it can be seen that mothers with supportive families have a greater percentage of complete basic immunization than mothers with less supportive families, so it can be concluded that supportive families can increase the desire of mothers to carry out complete basic immunization for their babies.

Social Support Theory emphasizes that social support from family members or those closest to them can influence individual decisions and behavior related to health. In the context of basic immunization, family support can play an important role in increasing the rate of immunization given to children (Putri 2017).

In this study, family support had a significant relationship with the provision of complete basic immunization to infants. These results were in line with the results of research conducted by Santoso. significant relationship between family support and complete basic immunization (Santoso 2021). Asrina obtained the results of the chi square test with a P value = 0.032 < 0.05 (Asrina, Nurnannah, and Nuraini 2021). Intan got a value from the chi square test with a P value = 0.002 < 0.05 (Rahayuningsih and Khairiah 2021).

In contrast to a study conducted by Sari et al (2022) which found that there was no significant relationship between family support and basic immunization in infants with a P value = 0.674 > 0.05 (Sari, Agustina, and Arifin 2022).

From the results of observations obtained during the study, the problem that often occurred to mothers was that they did not get permission from their in-laws and even their husbands to carry out immunizations, most mothers also felt afraid to immunize their children because their parents-in-law had been afraid that immunization would not have any benefit. what besides causing children to become sick and feverish, besides that many husbands or families never remind mothers to carry out immunizations on their schedule.

The Relationship between the Role of Health Officers and the Provision of Complete Basic Immunization in the Work Area of the Putri Ayu Health Center, Jambi City

It can be seen from the results of the analysis that mothers with health workers who play a good role, the percentage of mothers who carry out complete basic immunization is greater than the respondents who have health workers who do not play a role. Therefore it can be concluded that the better the role of health workers, the greater the motivation of mothers to carry out complete basic immunization. Health Education Communication Theory emphasizes the importance of effective communication between health workers and parents or guardians of children in increasing understanding, awareness, and acceptance of basic immunization (Indari 2020).

The results of this study are in line with research conducted by Agustina which stated that there was a relationship between family support and basic immunization with the chi square test which obtained a p = 0.000 < 0.05 (Agustina, Dewi, and Nurainih 2022). L.Tiu et al (2023) obtained the results of the chi square test obtaining a value of P = 0.02 < 0.05 (Tiu, Zainuddin, and Jafriati 2023).

Research conducted by Iswati obtained results that were inversely proportional to the results of this study, namely that there was no significant relationship between family support and the provision of complete basic immunization by conducting the chi square test, the researchers obtained a P value = 0.21 > 0.05 (Iswati 2020). Irmalasari et al (2022) obtained the results of the chi square test with a value of P = 0.062 > 0.05 (Irmalasari, Khodijah Parinduri, dan Chotimah 2022).

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CONCLUSION

Based on these results, it can be concluded that the factors associated with the provision of complete basic immunization in the working area of the Putri Ayu Health Center are mother's education (p-value 0.001), family support (p-value 0.007), and the role of health workers (p-value 0.004). Meanwhile, the unrelated factors were mother's occupation (p-value 0.371) and mother's knowledge (p-value 0.068). Advice that can be given to the public health center is to improve the way of communication between health workers and mothers, besides that health workers must further increase their role in increasing the motivation of mothers to carry out complete basic immunization which can be done by conducting KIE and KIP-K more frequently and routinely. Also hold meetings between mothers of children under five so that each mother of children under five can provide or exchange information about immunization and child health with one another.

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