Archives of The Medicine and Case Reports
Journal Homepage: https://hmpublisher.com/index.php/AMCR
eISSN: 2747-2051

Family Support and Mother's Perception in Compliance with Providing Complete Basic Immunization for Babies (Aged 0-12 Months) in Padang, Indonesia

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ARTICLE INFO

Keywords:
Complete basic immunization
Family support
Mother's perception

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All authors have reviewed and approved the final version of the manuscript.

https://doi.org/10.37275/amcr.v4i4.409

A B S T R A C T

There are around 20 million children in the world who do not receive complete immunization. One indicator of the success of a complete basic immunization program is its achievement of complete basic immunization (IDL) in Indonesia, which has reached 87.8% and needs to be increased to reach the target of 93%. This study aimed to find out family support and mothers' perceptions regarding compliance with providing complete basic immunization for babies (aged 0-12 months) in Padang. Research methods using mixed methods, quantitative using a cross-sectional approach and qualitative using a phenomenological approach, were carried out in July-August 2021, a sample of 91 people, namely babies at the Ambacang Health Center and Lapai Health Center 2021 and 17 informants. Data analysis using the Chi-square test and regression test. This logistics is to obtain and obtain a description, analysis, interpretation, and factors that most influence the complete basic immunization factors for babies at the Ambacang Health Center and Lapai Health Center, Padang. The results of the Chi-square statistical test results on maternal perception 0.000) and family support (0.020), So it can be concluded that there is an influence of family support on the mother's perception, with the provision of complete basic immunization for babies (aged 0-12 months) in Padang. The most dominant factor affecting complete basic immunization in babies was the mother's perception (p-value 0.000).

1. Introduction

Immunization is a health service that aims to protect individuals from diseases that can be prevented by immunization (VPD). Immunization is an important component of primary health care and plays a major role in reducing under-five mortality. Immunization has been proven to be an efficient and effective health effort in preventing and reducing morbidity, disability, and death due to VPD. Some of these diseases include tuberculosis (TB), polio, diphtheria, tetanus, hepatitis B, pertussis, measles, rubella, pneumonia, and meningitis. In Indonesia, every baby (under 12 months of age) is required to receive complete basic immunization consisting of 1 dose of hepatitis B *Bacillus Calmette-Guerin* (BCG) 1 dose, diphtheria/pertussis/tetanus-hepatitis B-*Haemophilus influenzae* type B (DPT-HB-HiB) dose, oral poliovirus vaccine (OPV) dose, and measles/measles-rubella (MR) 1 dose. Complete basic immunization coverage in Indonesia in 2018 was (90.61%), still slightly below the 2018 Strategic Plan target of (92.5%).[1] There are several factors that can influence a mother's behavior in bringing her baby to be immunized. Behavioral factors that influence an individual's health include predisposing factors, supporting factors, and driving factors. Predisposing factors consist of individual knowledge, attitudes, beliefs, traditions, social norms, and other elements found in individuals and society. Supporting factors include the availability of health service facilities and

the ease of achieving them. Driving factors include the attitudes and behavior of health workers.[2]

The COVID-19 pandemic, which has affected most countries, should not dampen the enthusiasm of health workers to continue to promote the importance of immunization and take important steps to ensure that every child who is a vulnerable group is protected from dangerous diseases by immunization. During the COVID-19 pandemic, immunization must still be completed according to schedule to protect children from VPD. Immunization services during the COVID-19 pandemic were carried out in accordance with local government policy, based on an analysis of the epidemiological situation of the spread of COVID-19, routine immunization coverage, and the VPD epidemiological situation. Immunization services are carried out according to the principles of infection prevention and control (PPI) and maintain a safe distance of 1-2 meters. The health service must coordinate and advocate with the local government regarding immunization services during the COVID-19 pandemic.[3-5]

The COVID-19 pandemic affected the achievement of complete basic immunization, where the achievement was still very low because COVID-19 itself was a viral outbreak or disease that could be transmitted, so mothers thought that after being immunized, their baby had a fever and thought that it was because they were infected with COVID-19 so that the thought of mother was reluctant to provide the next immunization schedule.[6,7] This study aimed to explore the role of family support and mother's perceptions in the decision to provide complete basic immunization to babies (aged 0-12 months) in Padang, Indonesia.

2. Methods

This research uses a mixed method type, using a quantitative approach case-control and qualitative using a phenomenological approach, carried out from July to August 2021 with a sample of 91 mothers with babies aged 0-12 years. Data analysis using the Chi-square test and logistic regression test to obtain and receive a description, analysis, interpretation, and provision of complete basic immunization for babies (aged 0-12 months). Data analysis was carried out univariate, bivariate, and multivariate, with a p-value <0.05.

3. Results and Discussion

Based on Table 1, it was found that 57 people had no family support. There were 39 (68.4%) people with incomplete basic immunization and 18 (31.6%) people with complete basic immunization. Of the 34 people with family support, there were 14 (41.2%) people with incomplete basic immunization and 20 (58.8%) people with complete basic immunization. Based on statistical test results, Chi-square on variables that have a significant relationship with providing complete basic immunization, p-value <0.05, namely mother's perception (0.005) and family support (0.020).

Table 1. The relationship between the independent variable family support and the provision of complete basic immunization.

Family support	Complete basic immunization				Total		p-value	OR (CI 95%)
	Incomplete		Complete					
	N	%	N	%	N	%		
No support	39	68,4	18	31,6	57	100	0,020	3,095 (1,281-7,479)
Support	14	41,2	20	58,8	34	100		
Total	53	58,2	38	41,8	91	100		

Table 2. Relationship between independent variables of maternal perception and provision of complete basic immunization.

Perception	Complete basic immunization				Total		p-value	OR CI 95%
	Incomplete		Complete					
	N	%	N	%	N	%		
Low	41	75,9	13	24,1	54	100	0,005	6,571 (2,595-16,636)
High	12	32,4	25	67,6	37	100		
Total	53	58,2	38	41,8	91	100		

Based on Table 2, it was found that 54 people had low maternal perception. There were 41 (75.9%) people with incomplete basic immunization and 13 (24.1%) people with complete basic immunization. Of the 37 people with high maternal perception, there were 12 (32.4%) people with incomplete basic immunization and 25 (67.6%) people with complete basic immunization.

Table 3. Factors that most influence the provision of complete basic immunization.

Independent variable	Complete basic immunization				Total		p-value	OR (CI 95%)
	Incomplete		Complete					
	n	%	N	%	N	%		
Perception								
Low	41	75,9	13	24,1	54	100	0,000	6,571
High	12	32,4	25	67,6	37	100		(2,595-16,636)
Family support								
No support	39	68,4	18	31,6	57	100	0,020	3,095
Support	14	41,2	20	58,8	34	100		(1,281-7,479)

In Table 3, the research results show that family support and mothers' perceptions in providing complete basic immunization for babies (aged 0-12 months) in Padang in 2021 are family support (p-value 0.020, exp B 0.847), mothers' perceptions (p-value 0.000, exp B=0.177), it is known that the most dominant influence on complete basic immunization in babies is perception (p-value 0.000).

The higher a person's level of knowledge, the easier it is to receive information, but low knowledge will hinder receiving information. Besides that, it is estimated that knowledge is not the only factor that can influence the completeness of immunization. So, even though, according to the level of knowledge, a mother understands the importance of immunization if it is not supported by other factors, for example, the affordability of health services and support from health workers, then immunization for children will not be fulfilled. Control of perceptual behavior as an interpretation and drawing conclusions about information obtained based on the experience of an event or object that begins through the sensing process. Negative perception is the condition of a person who rejects a particular object and views that the object does not suit his or her personality. Perception is one of the factors that influences parents to carry out immunization.[8-10]

Respondents who have positive perceptions agree that immunization can prevent infectious diseases. Immunization is considered important to build immunity in babies. The vaccine content in immunization is also deemed safe to be given, and parents have also received good information from health workers, both from toddler posyandu cadres and from local health center officials. Parents who were respondents also felt the benefits of basic

immunization, namely that their babies who had completed immunizations were less susceptible to disease.[11] Parents also think that even though they are not in an environment that is at risk of contracting infectious diseases, they still have to complete basic immunizations to prevent unwanted diseases. Parents also do not agree that immunizations have an impact on disability.[12] Mothers who receive family support in immunization have higher accuracy in administering immunizations than mothers who do not receive family support. If one family member and another family member if one of the family members has a health problem, it will affect other family members.[13] So, the family is a strategic focus of health services because the family has a major role in maintaining the health of all family members, and family problems are interrelated. The family can also be a place for decision-making in health care.[14,15]

4. Conclusion

There is a relationship between maternal perceptions and family support for providing complete basic immunization to babies (aged 0-12 months) in Padang, Indonesia.

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