

Factors Related To Dpt Immunization Provision To Toddlers In The Work Area Of Meureubo Public Health Center, West Aceh Regency

Tuti Alawiyah¹, Safrizal², Zakiyuddin³

¹Departement Public Health, Faculty Health Science, University Teuku Umar

²Departement Public Health, Faculty Health Science, University Teuku Umar

³Departement Public Health, Faculty Health Science, University Teuku Umar

Email Corresponding Author^(C): tutialawiyah@gmail.com

tutialawiyah@gmail.com¹, [safrizal@utu.ac.id](mailto:sufrizal@utu.ac.id)², zakiyuddin@utu.ac.id³

ABSTRACT

Immunization is a prevention effort that has succeeded in reducing infectious morbidity and mortality in infants and children. Based on a preliminary study on mothers who have baduta, there is still a low knowledge of mothers where mothers who do not want to give immunizations to the clan, then the mother does not pay attention to the benefits that will be obtained by the mother of immunization. The purpose of the study was to find out the factors related to DPT immunization at Baduta. The research method uses analytical survey design with a cross sectional survey approach. The population is all mothers who have the target of DPT immunization as many as 845 million and a sample of 89 people, the sampling technique is using simple random sampling technique and analyzed by univariate and bivariate using the chi-square test. The results of the study showed a significant relationship between knowledge factors (Pvalue = 0,000 <math>$\alpha = 0.05$</math>), attitudes (Pvalue = 0.035 <math>$\alpha = 0.05$</math>), actions (Pvalue = 0.035 <math>$\alpha = 0.05$</math>), health services (Pvalue = 0.020 <math>$\alpha = 0.05$</math>), family support (Pvalue = 0.020 <math>$\alpha = 0.05$</math>), with DPT immunization. It was concluded that there was a significant relationship between the factors of knowledge, attitudes, actions, health services, family support, and DPT immunization. It is recommended for Meureubo Health Center to carry out health promotion policies to further develop promotive and preventive programs.

Keywords : Knowledge, Attitudes, Actions, DPT Immunization

PUBLISHED BY :

PT. PUBLICCA MEDIA MANDIRI

Address :

Jl. KLIK Lapang, Meulaboh West Aceh, Aceh, Indonesia.

Email :

jurnalcos@gmail.com

Phone :

+62 85315441823

Article history : (dilengkapi oleh admin)

Received 15 June 2025

Received in revised form 15 June 2025

Accepted 15 July 2025

Available online 15 July 2025

licensed by [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).



Publisher : **PT. Publicca Media Mandiri**

INTRODUCTION

Immunization is one way to overcome the Tetanus virus (Utama, 2010). Diphtheria is a disease caused by the bacteria *Corynebacterium diphtheria*. Diphtheria is malignant, easily transmitted and attacks mainly the upper respiratory tract. Transmission can be due to direct contact with sufferers through sneezing or coughing or indirect contact due to food contaminated with diphtheria bacteria.

Sufferers will experience several symptoms such as fever of approximately 38°C, nausea, vomiting, pain when swallowing and the presence of grayish white pseudomembrane in the pharynx, larynx, or tonsils. (Utama, 2011).

The results of the 2013 Indonesian Demographic and Health Survey (SDKI) showed that the Infant Mortality Rate (IMR) was 34 per 1,000 Live Births and the Under-five Mortality Rate (IMR) was 44 per 1,000 Live Births. The target achievement in 2015 is the Infant Mortality Rate (IMR) of 23 per 1,000 Live Births and the Under-five Mortality Rate (IMR) of 32 per 1,000 Live Births. The implementation of health development includes health efforts and its resources must be carried out in an integrated manner in order to achieve optimal results. In 2015, the Indonesian nation is expected to achieve a certain level of health which is indicated by its population living in a healthy environment and behavior, being able to obtain adequate health services in a fair and quality manner, evenly distributed and having an optimal level of health.

Coverage of health services for toddlers can describe the government's efforts to increase toddlers' access to basic health services, to know as early as possible about abnormalities or diseases, to maintain health and prevent diseases, and to improve the quality of life of babies. provision of basic immunization (BCG as many as 87,593 (74.97%), DPT/, HB1-3 as many as 75,320 (65%), Polio 1 - 4 as many as 81,025 (71%) and Measles as many as 79,908 (69%). In 2016, the dropout rate for DPT/HB1 immunization was 2.4%. This figure is lower than in 2015 which was 2.9%. And in 2017 it was 17.7%. With the incidence of diphtheria as many as 591 cases (Ministry of Health, 2017).

Based on data from the Aceh Health Service, the number of DPT/HB1 and HB3 Drop Outs in 2015 was 7.5%, DPT/HB1 and HB3 in 2016 was 3.0%, DPT/HB1 and HB3 in 2017 was 8.2%, with 109 cases of diphtheria and 5 deaths.

Based on data from the West Aceh District Office, the immunization program for toddlers is grouped into several types, including: DPT + HB1, DPT3 + HB3. In 2015, the achievement of immunization, namely DPT3 + HB3, reached 2,237 (53%). In 2016, the achievement of DPT3 + HB3 immunization reached 2,251 (55%). In 2017, the achievement of immunization, namely DPT3 + HB3 reached 2,251 (63.9%), and there were 10 cases of diphtheria in 2018, of which 2 were positive and 8 were negative (West Aceh Health Office Profile, 2017).

Based on initial data at the Meurebo Health Center in 2015, the coverage of DPT/HB3 services was 591 (92%), out of 640 target toddlers, which had not reached the target of 100%. In 2016, the coverage of DPT/HB3 services was 434 (69%), out of 632 target toddlers, which had not reached the target of 100%. In 2017, the coverage of DPT/HB 1 services was 61.3%, DPT/HB 2 was 52.3%, DPT/HB3 was 49%, out of 667 target toddlers, which had not reached the target of 100%. And there was 1 case of diphtheria. The number of toddlers was 845 toddlers in 2018 and there was 1 case of diphtheria in 2018 at the Meurebo Health Center.

METHOD

This research design is an analytical survey with a cross-sectional design, which is a research method conducted with the main objective of determining the relationship between independent variables and dependent variables (Notoatmodjo, 2010). To determine the factors related to the provision of DPT immunization in toddlers in the Meurebo Health Center working area, West Aceh Regency. (Notoatmodjo, 2010).

RESULTS

Knowledge factors related to the provision

Table 1. Knowledge factors related to the provision of DPT immunization to toddlers in the work area of the Meurebo Health Center, West Aceh Regency.

Knowledge	DPT Immunization for Toddlers				Total		P.Value	Rasio Prevalence CI 95%
	There is		Nothing		F	%		
	F	%	F	%				
Good	28	71,8	11	28,2	39	100	0,000	7,245 (2,8-18,5)
Not Good	13	26,0	37	74,0	50	100		

Source: primary data 2018

Attitude factors related to the provision

Table 2. Attitude factors related to the provision of DPT immunization to toddlers in the work area of the Meurebo Health Center, West Aceh Regency.

Attitude	DPT Immunization for Toddlers				Total		P.Value	Rasio Prevalence CI 95%
	There is		Nothing		F	%		
	F	%	F	%				
Positive	20	62,5	12	37,5	32	100	0,035	2,857 (1,6-6,9)
Negative	21	36,8	36	63,2	57	100		

Source: primary data 2018

Action factors related to the provision

Table 3. Action factors related to the provision of DPT immunization for toddlers in the work area of the Meurebo Health Center, West Aceh Regency.

Action	DPT Immunization for Toddlers				Total		P.Value	Rasio Prevalence CI 95%
	There is		Nothing		F	%		
	F	%	F	%				
There is	18	64,3	10	35,7	28	100	0,035	2,974 (1,1-7,5)
Nothing	23	37,7	38	62,3	61	100		

Source: primary data 2018

Health Service Factors Related to the Provision

Table 4. Health Service Factors Related to the Provision of DPT Immunization for Toddlers in the Meureubo Health Center Work Area, West Aceh Regency

Health services	DPT Immunization for Toddlers				Total		P.Value	Rasio Prevalence CI 95%
	There is		Nothing		F	%		
	F	%	F	%				
Good	19	65,5	10	34,5	29	100	0,020	3,282 (1,2-8,3)
Not good	22	36,7	38	63,3	60	100		

Source: primary data 2018

Family Support Factors Related to the Provision

Table 5. Family Support Factors Related to the Provision of DPT Immunization for Toddlers in the Meureubo Health Center Work Area, West Aceh Regency

Family Support	DPT Immunization for Toddlers				Total		P.Value	Rasio Prevalence CI 95%
	There is		Nothing		F	%		
	F	%	F	%				
There is	20	64,5	11	35,5	31	100	0,020	1,290 (1,2-7,9)
Nothing	21	36,2	37	63,8	58	100		

Source: primary data 2018

DISCUSSION

Relationship between Knowledge and DPT Immunization in Toddlers

Based on the results of the chi square statistical test, the Pvalue = 0.000 was obtained and this is smaller than $\alpha = 0.05$ (Pvalue = 0.000 < $\alpha = 0.05$) so that it is described that there is a significant relationship between the knowledge factor and the provision of DPT immunization to toddlers in the Meureubo Health Center work area, West Aceh Regency. Based on the results of the Prevalence Ratio of 7.245, it can be concluded that respondents with poor knowledge will have a 7.245 times greater chance of not providing DPT immunization to toddlers compared to respondents with good knowledge.

The results of the study above are in line with the research of Emilya, et al (2017), in Lambung Bukit Village, Padang City where there is a relationship between knowledge and the provision of Complete Basic Immunization with a pValue = 0.001.

According to Daryanto (2010) Knowledge is information that is encountered and obtained by humans through observation of reason to recognize an object or event that has never been seen or felt before. Often knowledge is used as a reference to determine a person's level of intelligence. Bloom in his book Notoatmodjo (2010: 50) explains that knowledge is the result of human sensing, or the result of a person's knowledge of an object through the senses they have (eyes, nose, ears, etc.).

Mothers who are well-informed, but have no encouragement and motivation from within the mother herself or her family to bring their children for immunization will have a negative effect on the mother's behavior in providing immunization to toddlers. Likewise, mothers who have less knowledge, their behavior will be positive if there is encouragement from the family and explanation from health workers regarding the importance of immunization to toddlers. (Mahayu, P. 2014) Based on the findings of researchers in the field that respondents have good knowledge and provide DPT immunization to toddlers because respondents know that diphtheria is a disease caused by the bacteria *Corynebacterium diphtheria* and its transmission can be due to direct contact with sufferers through sneezing or coughing or indirect contact. On the other hand, respondents with less knowledge and do not provide DPT immunization to toddlers because respondents are afraid that toddlers will experience several symptoms such as fever of approximately 38°C, nausea, vomiting, pain, do not know the cause of diphtheria such as coughing more often at night, coughing occurs in succession and the end of the cough takes a long breath, usually accompanied by vomiting.

Relationship between Attitude and DPT Immunization in Toddlers

Based on the results of the chi square statistical test, the Pvalue = 0.035 was obtained and this is smaller than $\alpha = 0.05$ (Pvalue = 0.035 < $\alpha = 0.05$) so that it is described that there is a significant relationship between attitude factors and the provision of DPT immunization to toddlers in the work area of the Meureubo Health Center, West Aceh Regency. Based on the results of the Prevalence Ratio of 2.857, it can be concluded that respondents who have a negative attitude will have a 2.857 times greater chance of not providing DPT immunization to toddlers compared to respondents who have a positive attitude.

The results of the study above are in line with the research of Tampemawa, et al (2015), Ranotana Weru Community Health Center, Manado City, where there is a relationship between attitude and immunization status with a pValue = 0.003.

An individual is very closely related to their respective attitudes as personal characteristics. Attitude is generally often interpreted as an action taken by an individual to respond to something. The definition of attitude is explained by Saifudin Azwar (2010: 3) attitude is interpreted as a reaction or response that arises from an individual to an object which then gives rise to individual behavior towards the object in certain ways.

The attitude, beliefs, and behavior of maternal health are also important, because the use of health facilities by children is closely related to the mother's attitudes, behavior, and beliefs about health so that this can affect immunization status. The problem of understanding and parental participation in the immunization program will not be a major obstacle if adequate education about it is provided (Ali, 2010).

Based on the findings of researchers in the field that respondents have a positive attitude and provide DPT immunization to toddlers because respondents ignore bringing toddlers for DPT

immunization and always anticipate preventing children from crying at night. On the other hand, respondents have a negative attitude and do not provide DPT immunization to toddlers because respondents do not pay attention to toddlers when they cough, such as not knowing how to treat them and not knowing how to deal with babies with fever and babbling and do not care about bringing toddlers for DPT immunization.

Relationship between Actions and DPT Immunization in Toddlers

Based on the results of the chi square statistical test, the Pvalue = 0.035 was obtained and this is smaller than $\alpha = 0.05$ (Pvalue = 0.035 < $\alpha = 0.05$) so that it is described that there is a significant relationship between the action factor and the provision of DPT immunization to toddlers in the Meureubo Health Center work area, West Aceh Regency. Based on the results of the Prevalence Ratio of 2.974, it can be concluded that respondents who do not have action will have a chance of Prevalence 2.974 times who do not provide DPT immunization compared to respondents who have action.

The results of the study above are in line with the research of Hudhah and Hidajah (2017), at the Gayam Health Center, Sumenep Regency where there is a relationship between action and the provision of DPT immunization with a pValue value = 0.000.

Action is an encouragement from within a person that causes the person to carry out activities in order to achieve a goal (Suparyanto, 2011).

The mother's actions affect the mother's refusal to provide complete basic immunization. In addition, the mother's attitude is also related to the refusal to provide complete basic immunization where the emotional life or evaluation of a person towards an object, and the tendency to act. (Notoatmodjo, 2010).

Based on the findings of researchers in the field that respondents have actions and provide DPT immunization to toddlers because respondents always record the toddler immunization schedule and bring their children for DPT immunization 3 times. On the other hand, respondents do not have actions and do not provide DPT immunization to toddlers because mother respondents do not immunize their children on time because they record the toddler immunization schedule.

Relationship between Health Services and DPT Immunization for Toddlers

Based on the results of the chi square statistical test, the Pvalue = 0.020 was obtained and this is smaller than $\alpha = 0.05$ (Pvalue = 0.020 < $\alpha = 0.05$) so that it is described that there is a significant relationship between health service factors and the provision of DPT immunization to toddlers in the Meureubo Health Center work area, West Aceh Regency. Based on the results of the Prevalence Ratio of 3.282, it can be concluded that respondents who receive poor health services will have a Prevalence of 3.282 times who do not provide DPT immunization to toddlers compared to respondents who receive good health services. The results of the study above are in line with the research of Tiani, et al

(2016), in Banda Aceh City where there is a relationship between health services and immunization with a pValue value = 0.004. Public health services are organized by groups and communities that aim to maintain and improve health that refers to promotive and preventive actions. These community service efforts are carried out at certain community health centers such as health centers. (Ministry of Health, 2010).

Health workers strive and are responsible, providing health services to individuals and communities that are professional will affect the health status of the community. So it is hoped that mothers will immunize their babies by providing or explaining the importance of immunization (Suparyanto, 2011). Based on the findings of researchers in the field that respondents who received good health services and provided DPT immunization to toddlers because the health respondents were given that you get is easy to reach and DPT immunization services are always used on time. On the other hand, respondents who received poor health services and did not provide DPT immunization to toddlers because the service respondents received was less friendly and the service they received made the child sick where they had a fever at night and were fussy.

Relationship between Family Support and DPT Immunization in Toddlers

Based on the results of the chi square statistical test, the Pvalue = 0.020 was obtained and this is smaller than $\alpha = 0.05$ (Pvalue = 0.020 $< \alpha = 0.05$) so that it is described that there is a significant relationship between family support factors and the provision of DPT immunization to toddlers in the Meureubo Health Center work area, West Aceh Regency. Based on the results of the Prevalence Ratio of 1.290, it can be concluded that respondents who do not have family support will have a Prevalence of 1.290 times the chance of not providing DPT immunization to toddlers compared to respondents who have family support. The results of the study above are in line with the research of Azzahra and Susanti (2014), in Aceh Besar where family support with immunization with a pValue value = 0.001.

Family support is a form of interpersonal relationship that protects a person from the negative effects of stress (Kaplan and Sadock, 2012). Family support according to Fridman (2010) is an attitude, action of family acceptance towards family members, in the form of informational support, assessment support, instrumental support and emotional support. So family support is a form of interpersonal relationship that includes attitudes, actions and acceptance towards family members, so that family members feel that someone is paying attention to them. So family social support refers to social supports that are viewed by family members as something that can be accessed or held for families who are always ready to provide help and assistance if needed.

Cultural environment where people learn a lot from the surrounding cultural environment. The influence of the family on the formation of attitudes is very large because the family is the closest person to other family members. If the family's attitude towards immunization is less responsive and acts indifferent or even the implementation of immunization activities, the implementation of

immunization will not be carried out by the baby's mother because there is no support from the family (Suparyanto, 2011).

Based on the findings of researchers in the field, respondents who have family support and provide DPT immunization to toddlers because respondents always support you to bring toddlers to be immunized and accompany them. On the other hand, respondents who do not have family support and do not provide DPT immunization to toddlers because respondents do not get enough support to bring toddlers to be immunized because the family thinks that immunization will only make toddlers sick.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

1. There is a significant relationship between knowledge factors and the provision of DPT immunization to toddlers in the work area of the Meureubo Health Center, West Aceh Regency with a P.Value = 0.000 and a Prevalence Ratio of 7.245.
2. There is a significant relationship between attitude factors and the provision of DPT immunization to toddlers in the work area of the Meureubo Health Center, West Aceh Regency with a P.Value = 0.035 and a Prevalence Ratio of 2.857.
3. There is a significant relationship between action factors and the provision of DPT immunization to toddlers in the work area of the Meureubo Health Center, West Aceh Regency with a P.Value = 0.035 and a Prevalence Ratio of 2.974.
4. There is a significant relationship between health service factors and the provision of DPT immunization to toddlers in the working area of the Meureubo Health Center, West Aceh Regency with a P.Value = 0.020 and a Prevalence Ratio of 3.282.
5. There is a significant relationship between family support factors and the provision of DPT immunization to toddlers in the working area of the Meureubo Health Center, West Aceh Regency with a P.Value = 0.020 and a Prevalence Ratio of 1.290.

RECOMMENDATIONS

1. It is expected that the Meureubo Health Center will implement a health promotion policy to further develop promotive and preventive programs, namely by adding information media such as using electronic media and showing videos about DPT immunization and the dangers of diseases due to not being immunized against DPT, in order to provide information, change mothers' attitudes and actions, improve services and increase family support.
2. It is expected that health workers, especially those holding immunization programs, will increase routine counseling to the community, especially mothers who have babies, either individually or in

groups. Individual counseling can be carried out during immunization activities, while group counseling can be carried out at certain times.

3. It is expected that mothers will seek information about providing DPT immunization so that families also support the immunization program and health for their babies.

REFERENCES

- Ali, M. 2010. Pengetahuan, Sikap dan Perilaku Ibu Bekerja dan Ibu Tidak Bekerja Tentang Imunisasi. Jakarta
- Arfiyanti S. Faktor-Faktor Yang Berhubungan Dengan Cakupan Imunisasi Campak Di Kabupaten Tegal. Universitas Negeri Semarang
- Arikunto, Si. 2010. Prosedur Penelitian, Suatu Pendekatan Praktik, Edisi Revisi 2010. Jakarta. Rineka Cipta.
- Azzahra dan Susanti. 2014. Dukungan Keluarga Terhadap Ibu dalam Melaksanakan Imunisasi. Jurnal Kesehatan Masyarakat. Nomor 2. Volume 3. ISSN 87653.
- Azwar, S. 2010. Sikap Manusia Teori Dan Penerapannya. Yogyakarta: Pustaka Pelajar.
- Budioro. B. 2010. Pengantar Ilmu Kesehatan Masyarakat. Semarang: Badan Penerbit Universitas Diponegoro.
- Dinas Kesehatan Aceh Barat. 2016. Profil Kesehatan Aceh Barat. Aceh Barat Daryanto. 2010. Media Pembelajaran. Yogyakarta: Gava Media
- Emilya, et al. 2017. Hubungan Pengetahuan dan Sikap Ibu Balita terhadap Tindakan Imunisasi Dasar Lengkap di Kelurahan Lambung Bukit Kota Padang. Jurnal Kesehatan Andalas. 2017. Nomor 6. Volume 2. ISSN 2390412
- Friedman, M. 2010. Buku Ajar Keperawatan keluarga : Riset, Teori, dan Praktek. Edisi ke-5. Jakarta: EGC.
- Hudhah dan Hidajah. 2017. Perilaku Ibu Dalam Imunisasi Dasar Lengkap Di Puskesmas Gayam Kabupaten Sumenep. Jurnal Promkes Vol. 5 No. 2 Desember 2017: 167 – 180 Indonesian Demographic And Health Survey (IDHS) 2010. Jakarta: Ministry Of Health Kaplan, H.L.
- Sadock, B.J dan Grebb, J.A. 2012. Sinopsis Psikiatri, Ilmu Pengetahuan Perilaku Psikiatri Klinis. Edisi 7. Jilid II. Jakarta : Binaputra Aksara.
- Kemenkes RI. 2010. Informasi Dasar Imunisasi Rutin Serta Kesehatan Ibu Dan Anak bagi Kader, Petugas Lapangan Dan Organisasi Kemasyarakatan. Jakarta: Kemenkes RI.2011. Profil kesehatan Indonesia. Jakarta: Departemen Kesehatan RI.