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RELATIONSHIP BETWEEN MOTHER'S KNOWLEDGE ABOUT BASIC IMMUNIZATION AND THE COMPLETENESS OF BASIC IMMUNIZATION IN CHILDREN IN WEST KALIMANTAN

Elisabet Eggariati [1)*], Rahajeng Putriningrum [2)], Aris Prastyoningsih [3)]

[1)] Bachelor of Midwifery Student, Kusuma Husada University Surakarta
[2) 3)] Bachelor of Midwifery Lecturer, Kusuma Husada University Surakarta

Article Info

Corresponding Author:

Elisabet Eggariati
Kusuma Husada University Surakarta
elisabetegga@gmail.com

ABSTRACT

Background: In realizing the health of mothers and children in Indonesia, immunization is a public health effort that has proven to be the most *cost-effective*. Immunization can prevent and reduce the incidence of illness, disability, and death due to Immunization-Preventable Diseases (PD3I). One of the factors that can affect the completeness of immunization is the mother's knowledge of basic immunization. A child's basic immunization is declared complete if they have received one dose of HB-0, one dose of BCG, three doses of DPT-HB-HiB, four doses of polio drops, one dose of polio injection and 1 dose of Measles Rubella. This study aims to determine correlation mother's knowledge about immunization base to completeness immunization base in children at Posyandu Kasih Ibu, Kenyabur Village West Kalimantan.
Methods: This research use cross sectional design. Population in this study are mothers who have children aged 10-24 months at the Posyandu Kasih Ibu Kenyabur Village. The research sample was 32 samples with the total *sampling method.* Data collection using questionnaires and KIA book. Bivariate analysis using *Chi-square test.*
Results: The majority of mothers' knowledge about basic immunization has sufficient knowledge, namely 18 respondents (56.3%), while the completeness of basic immunization is 19 respondents (59.4%) who have incomplete immunization status. The Chi-square test show that the p-value was (0.027) <α (0.05).
Conclusion: There is a correlation between maternal knowledge about basic immunization and the completeness of basic immunization in children at the Posyandu Kasih Ibu, West Kalimantan.

Keywords: Mother's Knowledge, Basic Immunization, Completeness of Basic Immunization

INTRODUCTION

The current direction of health development emphasizes promotive and preventive efforts without neglecting curative and rehabilitative aspects. One of the preventive efforts is the implementation of an immunization program. Immunization is an effort to actively create or increase a person's immunity to a disease, so that if one day they are exposed to a disease, the person will not get sick or will only experience mild illness (Indonesia, 2022).

In realizing the health of mothers and children in Indonesia, immunization is a public health effort that has proven to be the most *cost-effective*. Immunization not only protects individuals but also the community by providing community protection or what is called *herd immunity*. Immunization can prevent and reduce the incidence of illness, disability, and death due to Immunization-Preventable Diseases (PD3I) which are estimated at 2 to 3 million deaths each year. Some infectious diseases included in PD3I include Hepatitis B, tuberculosis, diphtheria, pertussis, tetanus, polio, measles rubella, meningitis and pneumonia (Indonesia, 2022).

The immunization program in Indonesia requires every baby aged 0-11 months to receive complete basic immunization consisting of 1 dose of Hepatitis B, 1 dose of BCG, 3 doses of DPT-HB-HiB, 4 doses of polio drops or *Oral Polio Vaccine* (OPV), 1 dose of polio injection or *Inactivated Polio Vaccine* (IPV) and 1 dose of

Measles Rubella. The determination of the type of immunization and the schedule of administration is based on expert studies and epidemiological analysis of the diseases that arise. For several selected areas according to epidemiological studies, disease burden analysis and expert recommendations, there are additional certain immunizations, namely Pneumococcal Conjugate Vaccine (PCV) and *Japanese Encephalitis*. The implementation of the provision of these immunizations has not been implemented nationally, so it is not counted as a component of complete basic immunization in infants (Indonesia, 2022).

The World Health Organization (WHO) stated that an estimated 6 million children were not vaccinated in 2019, and an estimated 25 million children were not vaccinated in 2020 (Ciselia et al., 2024).

According to data in Indonesia, coverage immunization complete basic national increase on 2022 reached 99.6 %. The figure This Already meet the Renstra target in 2022, which is 90%. Compared in 2021, the provinces that can achieve the Renstra target increase from 6 provinces into 15 provinces. Province with coverage immunization base complete highest is Central Java (114.1%) while province with achievement the lowest, namely Aceh (48.1%) (Indonesia, 2022).

Complete basic immunization in West Kalimantan Province in the last five years has tended to fluctuate, with coverage ranging from 70% to 80%. In 2018 coverage immunization base complete that is by 79%. At 2019 coverage immunization base complete experience improvement by 3.5% to 82.5%. At 2020 coverage immunization base complete happen decline by 11.5% to 71%. At 2021 coverage immunization base complete experience improvement by 2.8% to 73.8% and on 2022 is experiencing improvement by 7.5% to 81.3%. The figure This has not yet reached the target mandated by the government, which is 90% (West Kalimantan Health Office, 2023).

In 2022 for complete basic immunization, there are 4 (four) districts/cities that have achieved the set target, namely Landak Regency at 104.3%, Sambas Regency at 102.4%, Sekadau Regency at 97.4% and Sanggau Regency at 90.1%. While other districts/cities are still below the set target. The district/city with the lowest achievement is Singkawang City at 41.6% followed by Kayong Utara Regency at 65.3% and Kubu Raya Regency at 68.3% (West Kalimantan Health Office, 2023).

The success of the implementation of the immunization program depends on several factors, including health services, social conditions of the community and the mother's own factors. The child's immunization status is influenced by the behavior of parents as parents who are responsible for the health and future of their children. A person's behavior or community regarding health, especially regarding the completeness of immunization status, is determined by knowledge, education, and family support (Adiwiharyanto et al., 2022).

Knowledge is a very important domain for the formation of a person's actions, because from experience and research, it turns out that behavior based on knowledge will be more lasting than behavior that is not based on knowledge. The better an individual's knowledge of health problems will be very helpful in preventing the occurrence of these health problems (Adiwiharyanto et al., 2022).

Based on research conducted by Dewi et al. (2016) in Ramadhina (2021) at the Bendo Health Center, Magetan Regency, it was found that 66.2% of babies had complete immunization status and 33.8% of babies had incomplete status. Meanwhile, 49.2% of babies had complete immunization status with good maternal knowledge and 30.8% of babies had incomplete immunization status with poor maternal knowledge. This shows that the role of maternal knowledge about basic immunization greatly influences the provision of basic immunization to babies.

The results of a preliminary study at the Posyandu Kasih Ibu in Kenyabur Village on June 19, 2024 by interviewing 10 mothers who had children, it was found that 6 mothers did not know the purpose, benefits, and time of immunization, while 4 mothers knew the purpose, benefits, and time of immunization. Based on the background above, the researcher is interested in conducting research with the title "Relationship Between Mother's Knowledge About Basic Immunization and The Completeness of Basic Immunization in Children at The Posyandu Kasih Ibu Kenyabur Village West Kalimantan".

METHODS

Design this research use analytical observational with cross sectional. Cross-

sectional is a study to study the dynamics of the correlation between risk factors and effects, by means of an observation approach or data collection at once at one time (point time approach) (Siyoto & Sodik, 2015). This research was conducted at the Posyandu Kasih Ibu Kenyabur Village West Kalimantan in November 2024. The population in this study were mothers who had children aged 10-24 months at the Posyandu Kasih Ibu Kenyabur Village numbering 32 people. The research sample consisted of 32 samples with the total sampling method. The research instrument was a questionnaire on knowledge of basic immunization and a KIA book. The questionnaire on knowledge of basic immunization was adopted from Eka Fitriani (2017) which has been tested for validity and reliability with a result of 0.746. Bivariate analysis using the Chi-square test. Furthermore, this study has obtained ethical permission from the Health Research Ethics Committee of Kusuma Husada University Surakarta with document number 2403/UKH.L.02/EC/X/2024.

RESULTS

1. Mother's Knowledge About Basic Immunization

Table 1
Frequency Distribution of Mothers' Knowledge About Basic Immunization

No	Knowledge	Frequency	%
1	Less	9	28.1
2	Enough	18	56.3
3	Good	5	15.6
	Total	32	100.0

Data Source: Processed Data, 2024

Based on the table above, it can be seen that 18 respondents (56.3%) have enough knowledge, 9 respondents (28.1%) have less knowledge and 5 respondents (15.6%) have good knowledge.

2. Completeness Of Basic Immunizations

Table 2
Frequency Distribution of Basic Immunization Completeness

No	Basic Immunization Completeness	Frequency	%
1	Incomplete	19	59.4
2	Complete	13	40.6
	Total	32	100.0

Data Source: Processed Data, 2024

Based on the table above, it can be seen that there were 19 respondents (59.4%) whose children received incomplete immunization and 13 respondents (40.6%) whose children received complete immunization.

3. The Relationship Between Mother's Knowledge About Basic Immunization and Completeness of Basic Immunization

Table 3
The Relationship Between Mother's Knowledge About Basic Immunization and Completeness of Basic Immunization

No	Mother's Knowledge	Basic Immunization Completeness				Total		P Value
		Incomplete		Complete				
		F	%	F	%	F	%	
1	Less	8	25.0	1	3.1	9	28.1	0.027
2	Enough	10	31.3	8	25.0	18	56.3	
3	Good	1	3.1	4	12.5	5	15.6	
	Total	19	59.4	13	40.6	32	100	

Data Source: Processed Data, 2024

Based on the table above it is known that mothers who have enough knowledge with incomplete basic immunization status are 10 respondents (31.3%) while mothers who have enough knowledge with complete basic immunization status are 8 respondents (25.0%). Mothers who have less knowledge with incomplete basic immunization status are 8 respondents (25.0%) while mothers who have less knowledge with complete basic immunization status are 1 respondent (3.1%). And mothers who have good knowledge with incomplete basic immunization status are 1 respondent (3.1%) while mothers who have good knowledge with complete immunization status are 4 respondents (12.5%).

Based on the results of the Chi-square statistical test output, a p-value of 0.027 was obtained. This shows that the p-value (0.027) $<\alpha$ value (0.05). It can be shown that Ha is accepted, which means that there is a relationship between maternal knowledge about basic immunization and the completeness of basic immunization in

children at the Posyandu Kasih Ibu Kenyabur Village West Kalimantan.

DISCUSSION

1. Mother's Knowledge About Basic Immunization

The results of this study showed that the majority of mothers' knowledge about basic immunization had sufficient knowledge with a result of 18 respondents (56.3%). This shows that a mother's knowledge about basic immunization will have an impact on the completeness of her child's basic immunization. This is in line with the previous which states that knowledge is results from know, and this happen after people do sensing to a object certain. Most of human knowledge is obtained through the eyes and ears. Knowledge or cognitive is a very important domain in shape a person's actions (*overt behavior*) (Notoatmodjo (2018) in Savitri et al. (2024)).

This research is in line with previous study which states that maternal knowledge about basic immunization in infants is very important. This is shown that maternal knowledge affects the completeness of immunization in her baby, where babies who have mothers with good knowledge will have complete basic immunization status compared to babies with mothers who have less knowledge about immunization (Maulida Rahma (2019) in Ramadhina (2021)).

2. Completeness Of Basic Immunization

Based on the research results, it was found that out of 32 respondents, 19 respondents (59.4%) had incomplete immunization records and 13 respondents (40.6%) had complete immunization records.

This study is in line previous study which shows that out of 74 respondents who had incomplete immunization as many as 51 respondents (68.9%) and those who had complete immunization as many as 23 respondents (31.1%). This shows that the completeness of basic immunization in infants can be influenced by the lack of maternal knowledge about immunization, the benefits of immunization and lack of knowledge of the immunization schedule (Putri Handayani Setyaningsih (2019) in Ramadhina (2021)).

The results of the researcher's analysis show that the completeness of basic immunization in infants can be influenced by the lack of knowledge of mothers about basic immunization. This shows the importance of health education for mothers as a solution to increase insight into immunization among them purpose, benefits, time of immunization and diseases that can be prevented by immunization. With this counseling, it is hoped that mothers will be able to carry out basic immunizations on babies completely.

3. The Relationship Between Mother's Knowledge About Basic Immunization and Completeness of Basic Immunization

Based on the research results, it can be seen that out of 32 respondents, there were 18 respondents (56.3%) who had enough knowledge, 10 respondents (31.3%) who participated in incomplete immunization and 8 respondents (25.0%) who participated in complete immunization, while 1 respondent (3.1%) who had good knowledge participated in incomplete immunization and 4 respondents (12.5%) who participated in complete immunization. Based on the results of the Chi-square statistical test output, a p-value of 0.027 was obtained. This shows that the p-value (0.027) $<\alpha$ value (0.05). It can be shown that Ha is accepted, it can be interpreted that there is a relationship between maternal knowledge about basic immunization and the completeness of basic immunization in children at the Posyandu Kasih Ibu Kenyabur Village West Kalimantan.

This study is in line with previous researchs that examined maternal knowledge about basic immunization with the completeness of basic immunization in infants in the Sindang Belitir Ilir Health Center Work Area in 2019. The results showed that there was a significant relationship between the level of mothers' knowledge about basic immunization and the completeness of basic immunization for infants in the Sindang Belitir Ilir

Health Center Work Area (Ratiyun & Keraman, 2019).

As an effort to achieve success in the accuracy of immunization in children, especially immunization, good parental knowledge about basic immunization is needed so that this program can be achieved according to the expected target, it is hoped that posyandu cadres, health workers and extension workers at health centers can provide information to the community about immunization by conducting health promotion, health counseling, distributing leaflets, distributing posters and distributing books about the benefits of immunization to the community (Ratiyun & Keraman, 2019).

Knowledge is a very important domain for the formation of a person's actions, because from experience and research, it turns out that behavior based on knowledge will be more lasting than behavior that is not based on knowledge. The better an individual's knowledge of health problems will be very helpful in preventing the occurrence of these health problems (Adiwiharyanto et al., 2022).

Based on previous studies, it was found that 66.2% of babies had complete immunization status and 33.8% of babies had incomplete status. Meanwhile, 49.2% of babies had complete immunization status with good maternal knowledge and 30.8% of babies had incomplete immunization status with poor maternal knowledge. This shows that the role of maternal knowledge about basic immunization greatly influences the provision of basic immunization to babies (Dewi et al. (2016) in Ramadhina (2021)).

A person's knowledge of an object will affect his/her attitude towards the object. Good knowledge of an object will make a person have a positive attitude towards the object which will ultimately lead to good health behavior.

CONCLUSION

Based on the research results, we can conclude that there is a correlation between maternal knowledge about basic immunization and the completeness of basic immunization in children at the Posyandu Kasih Ibu Kenyabur Village West Kalimantan with a p-value (0.027) < α (0.05).

REFERENCES

Adiwiharyanto, K., Setiawan, H., Widjanarko, B., Sutiningsih, D., & Musthofa, S. B. (2022). Factors Influencing Mothers in Implementing Complete Basic Immunization in Children at the Miroto Health Center, Semarang City. 7(2), 522–529.

Alamsyah, PR, Firdaus, D., Wahyuni, LET, & Damanik, MFDD (2024). *Building the Golden Generation with the 8000 HPK Nutrition Guidelines* (MR Kurnia (ed.)). PT Sada Kurnia Pustaka.

Ciselia, D., Utama Saputra, A., & Afrika, E. (2024). Health Education on the Importance of Complete Basic Immunization for Infants at the Srikaton Health Center in 2023. Journal of Cendikia Service, 2(9), 0. https://doi.org/10.5281/zenodo.10497013

Darma, B. (2021). *Research Statistics Using SPSS* . Guepedia.

Darsini, Fahrurrozi, & Cahyono, EA (2019). Knowledge; Review Article. *Journal of Nursing* , *12* (1), 97.

Dewi, PDPK, & Megaputri, PS (2021). *ASKEB Neonates, Infants, Toddlers, and Preschool Children Immunization Series* . Deepublish.

Ferasinta, Dompas, R., Nurnainah, Rahim, R., & Nelista, Y. (2021). *Basic Concepts of Pediatric Nursing* (Novita Maulidya (ed.); 1st Edition). Muhammad Zaini Publishing Foundation.

Indonesia, P. K. (2022). *Profil Kesehatan Indonesia. Kementerian Kesehatan Republik Indonesia, Jakarta*.

Mayasari, AC, Rohan, HH, & Siyoto, S. (2017). *Research Methods: Nursing and Statistics* (1st Edition). Media Nusa Creative.

Notoatmodjo, S. (2018). *Health Research*

Methodology . Rineka Cipta.

Prihatiningsih, D. (2022). *The Ease of Learning Descriptive Statistics* . CV. Sarnu Untung.

Ramadhina, D. (2021). The Relationship Between Mother's Knowledge About Basic Immunization and Participation in Basic Immunization in Infants at the Setia Mekar Health Center, Bekasi Regency. *Medistra Indonesia College of Health Sciences*, 1–84.

Ratiyun, R. S., & Keraman, B. (2019). *SINDANG BELITIR ILIR The Relationship Between Mother ' s Knowledge With The Completennes Of Basic Immunization Of The Primary Health Care In Sindang Belitiilir*. *4385*, 34–42.

Rumiati, M. (2023). *The Effect of Flip Sheet Media on Increasing Knowledge of Compliance with Fe Tablet Consumption in Anemic Pregnant Women at Cigeureung Health Center* . 31–37.

Savitri, W., Yulyana, N., & Baska, D. Y. B. (2024). *Posyandu Adolescents: Improving Lifestyle Knowledge and Role as Peer Counselors*. NEM.

Siswanto. (2017). *Qualitative-Quantitative Combination Research Methods in Medicine and Health* . Bossscript.

Siyoto, S., & Sodik, M. A. (2015). *Basic Research Methodology* (Ayup (ed.)). Literacy Media Publishing.

Sugiyono. (2018). *Quantitative, Qualitative and R&D Research Methods* .

Suryati, Rasmita, D., Hadisaputra, S., & Surudani, CJ (2024). *Pediatric Nursing Textbook* (E. Rianty (ed.); 1st Edition). PT. Sonpedia Publishing Indonesia.

Susila, & Suyanto. (2014). *Epidemiological Research Methods in the Field of Medicine and Health* . Bursa Ilmu.

Utarini, A., Dwiprahasto, I., Probandari, AN, & Praono, D. (2022). *Method Research: Principles and Applications for Hospital Management* (A. Utarini & I. Dwiprahasto (eds.)). Gadjah Mada University Press.

West Kalimantan Health Office. (2023). West Kalimantan Provincial Health Profile 2022. *West Kalimantan Provincial Health Profile*, 7, 1–215. www.dinkes.kalbarprov.go.id