

Relationship Between Education, Parity Status And Mother's Knowledge Of Booster Immunization With Complete Basic Immunization Of Children In The Work Area Of The Tanjungsiang Health Center Subang Regency In 2023

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Abstract.

Complete basic immunization plays a role in suppressing the spread of disease so that it is beneficial for immunity. In reducing the incidence of disease, complete basic immunization is needed to reduce disease in society as a whole. Purpose of Writing: for Education Relations, Parity Status and Mother's Knowledge About Booster Immunization With Children's Complete Basic Immunization. Research Methods: the sample was taken by all mothers who had toddlers aged 24-59 months. data collection using secondary and primary data. primary and secondary data collection. research design cross sectional quantitative approach. Research Results : In the results of the study, the majority of mothers with high school education (SMA) were 32 people (55.2%), parity status of primipara mothers were 29 people (50.0%), good knowledge of 26 people (44.8%) . There is a relationship between parity and knowledge of complete basic immunization with an asym sig 2 tailed value of 0.05 for parity status and 0.000 for knowledge. There was no relationship between education and complete basic immunization, which resulted in an asym sig 2 tailed value of 0.887. Conclusions and Suggestions: In providing education to mothers having babies 0-59 months, midwives can collaborate with other health teams, in providing health education about immunization.

Keywords: Education, Parity Status and Knowledge and Complete Basic Immunization of Children.

I. INTRODUCTION

Immunization is one of the efforts made to actively increase the body's immunity against the disease that is feared. If one day is exposed to the disease, someone who has received immunization will not experience pain (Rahman et al., 2020). Data from UNICEF in 2018 stated that 2-3 million lives were saved each year thanks to immunization. The vaccines given have an important role in protecting children from serious diseases that can lead to death. Complete and advanced basic immunization is a very important program in disease prevention efforts. Complete basic immunization is a series of vaccines that must be given to infants and children at the right time, according to the immunization schedule determined by the government. Vaccines included in complete basic immunization include vaccinations for hepatitis B, BCG (tuberculosis), DPT (diphtheria, tetanus and pertussis), polio and measles. While follow-up immunization is given at the age of more than 1 year which includes vaccinations for hepatitis A, influenza, HPV (human papillomavirus), pneumococcal, meningococcal and varicella (chickenpox). Rahman et al., (2020) In the Ministry of Health's rules regarding the administration of immunization, immunization is grouped into two, namely program immunization and optional immunization. Immunization as a program is further divided into 3 types, namely routine immunization, additional immunization, and special immunization. Routine immunization has a certain routine schedule that has been set by the government and consists of basic immunization and follow-up immunization (Kemenkes RI, 2017).

Basic immunization alone is in fact not enough. Follow-up immunizations are required to maintain optimal levels of immunity. Follow-up immunization is a repeat of basic immunization to extend the protection period for children who have received basic immunization. In addition, this type of immunization is useful for increasing the body's immunity. (RI Ministry of Health, 2017). For complete basic immunization, infants are given Hepatitis B immunization (HB0) for infants aged less than 24 hours, BCG 1

time, DPT-HB-HiB 3 times, polio 4 times, and IPV (injectable polio) 1 time and measles/MR 1 time. As for follow-up immunizations, namely babies under two years old and 18 months old are given DPT-HB-HiB and measles/MR immunizations, grade 1 SD are given DT and measles/MR and grades 2 and 5 SD are given Td (Govind, 2019). Measles is an endemic disease that occurs throughout the world. Disability to death can occur due to complications such as pneumonia, otitis media, rubella encephalitis (German measles). This disease generally attacks children. Measles is a disease that requires immunization. Basic immunization is given at 9 months of age while advanced immunization is given at 18 months of age (Suhartini and Hartini, 2019). Based on the 2018 Riskesdas data which refers to the Susenas block sample frame, follow-up immunization coverage for children aged 24-35 months in Indonesia is at a low status. For pentavalent immunization (DPTHb-Hib) it was only 39.4% while for advanced measles it was 38.3%. Specifically in South Sulawesi Province, the coverage for pentavalent follow-up immunization and measles is only above 40% (Ministry of Health Republic of Indonesia Research and Development Agency, 2018).

Until now the problem of immunization still exists, many mothers do not come to posyandu to immunize their children. This is caused by various factors such as the mother's work. Mothers who work in the morning cannot visit the posyandu because they are busy at work and don't have enough time, so they pay less attention to their children's health. Knowledge about immunization related to the level of knowledge such as understanding and understanding problems because there are still many mothers who have the wrong opinion about immunization that is developing in society. and not a few parents are worried about the side effects of some vaccines. In addition, family support is very important for mothers to influence a mother's knowledge and so that mothers are motivated to bring their babies immunizations, so that they increase the mother's confidence in giving basic immunizations to babies so that they can affect their immunization status (Hidayah, Sihotang and Lestari, 2018). Based on research conducted by Itsa (2019) it was found that the implementation of pentavalent follow-up immunization was related to mother's knowledge, mother's attitude, and mother's employment status. Similar to the research conducted by Rahman et al., (2020), it was found that the knowledge and attitudes of the baby's parents had a considerable influence on motivation in completing the immunization kit for children aged 18-24 months.

Booster immunization is very important to increase the immune response to vaccines which has decreased as the child gets older. If boosters are not carried out, children are at risk of not being protected when exposed to diseases that should be prevented, such as diphtheria outbreaks. If an outbreak occurs, re-immunization can be given immediately, apart from carrying out immunizations according to the schedule and giving boosters (Linda Rofiasari & Pratiwi, 2020). Research on complete and advanced basic immunization is often carried out to evaluate the effectiveness of the immunization program and determine if the program has succeeded in achieving the desired goal, namely reducing cases of diseases that can be prevented by vaccination so that research can help increase public knowledge about the importance of immunization and community participation in immunization programs. In order to convey maximally about booster immunization, it is necessary to provide knowledge and curiosity for mothers who have toddlers about booster immunization, therefore researchers want to conduct research with the title Educational Relations, Parity Status and Knowledge of Booster Immunization with Complete and Advanced Basic Immunization Status in Children In the Working Area of the Tanjungsiang Health Center in 2023

II. METHODS

This design is research This research is a type of research that is analytic observational in nature, cross sectional design with a quantitative approach. The research was carried out in the working area of the Tanjungsiang Health Center, Subang Regency. The technique used in sampling was a total sampling of 58 people. Data collection technique is a method used by researchers in collecting research data by using primary data to find out general data for mothers who have toddlers using research instruments, namely questionnaires and secondary data to find out the number of children under five 24-59 months in the Tanjungsiang Health Center work area so that they can assess immunization adequacy in infants.

III. RESEARCH RESULT

A. Univariate analysis

1. Frequency Distribution of Mothers Based on Education

Tabel 1.

Characteristics of Respondents	F	%
College	12	20,7
Senior High School (SHS)	32	55,2
Junior high school (JHS)	14	24,1
Total	58	100

Table 1 shows the majority of mothers with high school education (SMA) as many as 32 people (55.2%). Junior high school education (SMP) as many as 14 people (24.1%) and tertiary education (PT) as many as 12 people (20, 7%).

2. Frequency Distribution of Mothers Based on Parity Status

Tabel 2.

Characteristics of Respondents	F	%
Primipara	29	50,0
Multipara	22	37,9
Grande Multipara	7	12,1
Total	58	100

Table 2 shows the majority of parity status of primiparous women as many as 29 people (50.0%), Multipara as many as 22 people (37.9%) and Grande multipara as many as 7 people (12.1%)

3. Distribution of Mother's Frequency Based on Knowledge

Tabel 3.

Characteristics of Respondents	F	%
Good	26	44,8
Enough	25	43,1
Not Enough	7	12,1
Total	58	100

Table 3 shows the majority of 26 people (44.8%) have good knowledge, 25 people (43.1%) have sufficient knowledge and 7 people (12.1%) lack knowledge.

4. Frequency Distribution of Mothers Based on Basic and Advanced Immunizations in Children

Tabel 4.

Characteristics of Respondents	F	%
Complete	44	75,9
Not Complete	14	24,1
Total	58	100

Table 4 shows that the majority of complete basic and advanced immunizations are 44 people (75.9%), incomplete basic and advanced immunizations are 14 people (24.1%)

B. Bivariate analysis

1. The Relationship between Education and Complete Basic Immunization for Children in the Work Area of the Tanjungsiang Health Center, Subang Regency in 2023

Table 5. Relationship between knowledge and children's complete basic immunization

Education	Basic and Advanced Immunization in Children						Asymp.sign (2 – sided)
	Lengkap		Tidak Lengkap		Total		
	f	%	f	%	f	%	
College	9	15,6%	3	5,2%	12	20,8%	0,887
SHS	25	43,1%	7	12,0%	32	55,1%	
JHS	10	17,2%	4	6,9%	14	24,1%	
Total	44	75.9 %	14	24,1%	58	100%	

The results of the analysis of the relationship between education and complete basic immunization show an Asymp.sign value of 0.887, because the p-value is $0.887 > 0.05$, so it can be concluded that there is no relationship between education and complete basic immunization in the working area of the Tanjungsiang Health Center, Subang Regency, 2023.

2. *The Relationship between Parity Status and Children's Complete Basic Immunization in the Work Area of the Tanjungsiang Health Center, Subang Regency in 2023*

Table 6. Relationship between parity status and children's complete basic immunization

Parity Status	Basic and Advanced Immunization in Children						Asymp.sign (2 – sided)
	Complete		Not Complete		Total		
	f	%	f	%	f	%	
Primipara	25	43,1%	4	6,9%	29	50%	0,050
Multipara	16	27,6%	6	10,3%	32	37,9%	
Grande Multipara	3	5,2%	4	6,9%	7	12,1%	
Total	44	75.9 %	14	24,1%	58	100%	

The results of the analysis of the relationship between parity status and complete basic immunization show an Asymp.sign value of 0.050, because the p-value is $0.050 \leq 0.05$, it can be concluded that there is a relationship between parity status and complete basic immunization in the working area of the Tanjungsiang Health Center, Subang Regency, in 2023.

3. *The Relationship between Knowledge and Complete Basic Immunization for Children in the Working Area of the Tanjungsiang Health Center, Subang Regency in 2023*

Table 7. Relationship between knowledge and children's complete basic immunization

Knowledge	Basic and Advanced Immunization in Children						Asymp.sign (2 – sided)
	Complete		Not Complete		Total		
	f	%	f	%	f	%	
Good	24	41,4%	2	3,4%	26	44,8%	0,000
Enough	20	34,5%	5	8,7%	25	43,2%	
Not Enough	0	0 %	7	12,0%	7	12,0%	
Total	44	75.9 %	14	24,1%	58	100%	

The results of the analysis of the relationship between knowledge and complete basic immunization show an Asymp.sign value of 0.000, because the p-value is $0.000 < 0.05$, so it can be concluded that there is a relationship between knowledge and complete basic immunization in the working area of the Tanjungsiang Health Center, Subang Regency, 2023

DISCUSSION

A. Discussion of the characteristics of mothers who have babies aged 24-59 months

In the study, the results of the frequency distribution of mothers based on education, parity and knowledge showed that the majority of mothers had high school education (SMA) as many as 32 people (55.2%), the majority of parity status of primipara mothers were 29 people (50.0 %), the majority of good knowledge as many as 26 people (44.8%). Education is an effort made to educate people so that they can grow and develop and have the potential or ability as they should. With the existence of education and the level of education that must be taken by children to parents. Because the level of education is the level of education that every human being has to gain broader knowledge. Education is an activity that is aware of important goals in educational activities, so that education can be directed according to the provisions that will be carried out. (Siti Hawa, 2019). According to Law No. 2 of 1989, the educational levels included in the school education pathway consist of: basic education (SD/MI, SMP/MTS), secondary education (SMA, SMK, MA), higher education (Academy, Institute, College and University), and not in school or not yet in school. Parity or number of births is the number of babies born to a woman during her lifetime. Parity is usually calculated based on the number of live births, although some definitions may also include stillbirths or pregnancies that do not reach 20 weeks' gestation. Parity is often used in reproductive health and demographic research to understand reproductive trends and predict future health care needs. Parity can also affect women's health and quality of life, and is assessed in various family policies and family planning.

(Ibrahim, D. (2016) Based on the number of the Ministry of Health (2019), the parity of a woman can be divided into Nullipara, namely women who have never given birth to children at all. Primipara is a woman who has given birth once. Multipara is a woman who has given birth two to four times. Multipara is a woman who has given birth to a child more than once. Grande multipara, namely women who have given birth to 5 children or more and usually experience complications in pregnancy and childbirth. Knowledge is

the result of knowing, and this occurs after people sense a certain object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch (Nanda Kharin et al., 2021). Cognitive or knowledge is very dominant and very important in shaping individual actions (Winarsih & Maesaroh, 2017). knowledge which means knowing related to stimuli or situations from outside, attitude which means an inner response to a stimulus or situation from outside the subject, and the third is action which means concrete and already in the form of actions towards stimuli or situations from outside (Triana, 2017).

B. Bivariate analysis

1. The Relationship between Education and Complete Basic Immunization for Children in the Work Area of the Tanjungsiang Health Center, Subang Regency in 2023

In this study, the results of the analysis of the relationship between education and complete basic immunization showed an Asymp.sign value of 0.887, because the p-value was $0.887 > 0.05$, so it could be concluded that there was no relationship between education and complete basic immunization in the work area of the Tanjungsiang Health Center, Subang Regency, in 2023. The results of this study are not in line with previous research which stated that there was a significant relationship between parental knowledge and completeness of additional immunizations in infants aged 2-24 months. According to the researcher's assumption that a person's education has no effect on complete basic immunization. Based on the characteristics of the respondents in carrying out complete basic immunization of children, it can be seen that senior secondary education has the largest number, according to the researchers' assumption, because nowadays technology is increasingly sophisticated and makes it easier for mothers to access immunization so that existing problems can be identified via the internet. Increasing information is currently very easy to get by accessing internet social media such as YouTube about exclusive breastfeeding education so that respondents can receive information quickly and easily.

This is proven through research by Arham, M. (2020) which explains YouTube is the largest and most popular online video sharing media website in the internet world. Currently YouTube users are spread all over the world from various age groups, from children to adults. Youtube users can upload videos, search videos, watch videos, discuss/question and answer about videos and at the same time share video clips for free. Every day there are millions of people who access YouTube, so it's not wrong if YouTube has the potential to be used as a learning medium. And currently many YouTube users are uploading videos about lessons and many educators also provide videos about learning so it's not wrong if YouTube is a learning medium for students. So it can be concluded that there is a gap in the current research with the previous theory, namely the theory of Notoatmodjo, 2018 which states that knowledge can be influenced by educational factors where it is hoped that with higher education a person's knowledge will broaden. Therefore, it can be analyzed by researchers that there is no education with complete immunization. It is possible to get information via the internet, coupled with audio-visual media in the form of YouTube as a storehouse of knowledge so that all people can access the information contained on the internet media.

2. The Relationship between Parity Status and Children's Complete Basic Immunization in the Work Area of the Tanjungsiang Health Center, Subang Regency in 2023

In this study, the results of the analysis of the relationship between parity status and complete basic immunization showed an Asymp.sign value of 0.050, because the p-value was $0.050 \leq 0.05$, so it could be concluded that there was a relationship between parity status and complete basic immunization in the working area of the Tanjungsiang Health Center, Subang Regency, 2023. The results of this study are in line with previous research by Makamban (2014) which explained that parity can affect whether or not there is time for mothers to leave the house to get immunization services for their children, the more parity and children, the less time available for mothers to give immunizations. According to the assumptions The researchers found this relationship due to the number of children who are more than one, of course, will have experience from previous children. This is supported in the theory of Villela, L. M. (2017) which states that experience can be interpreted as something that has been experienced, lived or felt, both long ago and recently happened. In addition, experience also comes from one's knowledge, this is in line with the theory of Notoatmodjo, 2018 which states that everyone has different experiences even though they see the same

object, this is influenced by: the level of knowledge and education of a person, actors or factors on the part of those who have experience, perceived object or target factors and situational factors in which the experience was carried out. Age, education level, socio-economic background, culture, physical environment, occupation, personality and life experiences of each individual also determine experience. In this study it was found that the majority of primiparas, which were associated with carrying out basic immunizations on primiparous mothers because researchers believed that young primiparous mothers had a good perception of carrying out complete basic immunizations were influenced by several factors including the average young mothers who had received information about basic immunizations complete so that the research results do not have gaps with theory and previous studies which state that parity status is related to complete basic immunization. In this study, it can be analyzed by researchers that parity is closely related to carrying out complete basic immunization which needs to be given complete information to mothers who have babies in the completeness of basic immunization. Therefore the results of this study there is no gap between the current research and previous research.

3. The Relationship between Knowledge and Complete Basic Immunization for Children in the Working Area of the Tanjungsiang Health Center, Subang Regency in 2023

In this study, the results of the analysis of the relationship between knowledge and complete basic immunization showed an Asymp.sign value of 0.000, because the p-value was $0.000 < 0.05$, so it could be concluded that there was a relationship between knowledge and complete basic immunization in the work area of the Tanjungsiang Health Center, Subang Regency, in 2023. The research results are in line with previous research by Mely, M., et al (2022). which explained the results of the study that there were 8 (55.6%) mothers with high knowledge who provided complete basic immunization, while 6 (29.3%) mothers with low knowledge provided complete basic immunization. The statistical test results obtained $P = 0.003$, so it can be concluded that there is a significant relationship between knowledge and complete basic immunization. The results of this study are in line with the research of Ditarahmaika, (2019) which states that there is a relationship between mother's knowledge and basic immunization status in infants in Mergosono Village, Kedungkandang District, Malang City. Knowledge is the initial stage in which the subject begins to recognize new ideas and learn to understand which in turn can change behavior.

The better the mother's knowledge about immunization, the more positive the response will be, namely increasing the mother's willingness to provide basic immunization to the baby. Based on the results of the research, the knowledge obtained is very influential in carrying out basic complete immunization. According to the researcher's assumption that adequate knowledge of basic complete immunization plays a crucial role in changing the behavior of parents and individuals regarding immunization. With a good understanding, parents become more aware of the need to protect their children from serious diseases and complications that can be prevented through vaccination. Therefore efforts to increase knowledge about immunization through education such as counseling and easy access to information so that it can change behavior and increase basic complete immunization coverage. Based on the theory and opinion of previous research, knowledge is closely related to a person's behavior so that it is proven in the results of the current study that mothers with good knowledge get completeness in giving basic immunizations to their children.

IV. CONCLUSION

Based on the results and discussion of the research results, it can be concluded that:

1. The majority of mothers have high school education (SMA) as many as 32 people (55.2%), parity status of primiparous women as many as 29 people (50.0%), good knowledge of 26 people (44.8%).
2. There is a relationship between parity and knowledge of complete basic immunization with an asym sig 2 tailed value of 0.05 for parity status and 0.000 for knowledge.
3. There is no relationship between education and complete basic immunization, which is asym sig 2 tailed, namely 0.887

V. SUGGESTION

1. Mothers with infants aged 0-59 months can find accurate and up-to-date information on the benefits of basic complete immunization in increasing the body's immunity in their children so that they can gain an in-depth understanding of complete basic immunization.

2. In providing education to mothers having babies 0-59 months, midwives can collaborate with other health teams, in providing health education about immunization.

3. Future research can deepen understanding of complete immunization coverage so that it can add variables that are more in-depth in assessing completeness in providing complete basic immunization.

In order to reduce confounding factors that might affect the results of the study, it is important to control variables such as measuring other aspects that may affect basic complete immunization, such as the role of health workers, providing counseling, information sources and others.

REFERENCES

- [1] Safitri, F., Andika, F., & Asiah, C. (2020). Health Counseling About the Importance of Providing Advanced Immunization / Booster (DPT-HB-Hib and Measles) to Toddlers in the Work Area of the Leupung Community Health Center, Aceh Besar District Health Counseling on the Importance of Providing Advanced Immunization / Booster (. *Journal of Community Service (Health)*, 2(2), 104–111.
- [2] Inengsih, H. (2018). The Relationship Between Education, Knowledge, Family Support and the Role of Health Workers and Mother's Compliance in Carrying Out Basic Immunizations for Infants Aged 0-12 Months in Aweh Village, Lebak District, Banten Province. *Health Kusuma Husada*.
- [3] Harahap, R. R., Perwitasari, T., & Puspasari, A. (2019). Description of Mother's Knowledge and Motivation regarding Administration of Advanced DPT Immunization (Booster) at the Simpang IV Sipin Health Center, Jambi City. *In Baiturrahim Jambi Academic Journal* (Vol. 8, Issue 2, pp. 61–65). <https://doi.org/10.36565/jabj.v8i2.14>
- [4] Adam, A. (2017). Meningitis: From Headaches to Risk of Death. In *Tirto.Id-Health*. <https://tirto.id/meningitis-dari-sakit-Head-to-risiko-meninggal-dunia-ckQG>
- [5] Arikunto, S. (2012). *Research Procedures A Practice Approach*. Rineka Cipta.
- [6] District Health Office Karawang. (2018). *Health Profile of Karawang Regency in 2018*. www.karawangkab.go.id, 1–339.
- [7] Dinengsih, H. (2018). The Relationship Between Education, Knowledge, Family Support and the Role of Health Workers and Mother's Compliance in Carrying Out Basic Immunizations for Infants Aged 0-12 Months in Aweh Village, Lebak District, Banten Province. *Health Kusuma Husada*.
- [8] Directorate of Surveillance, Immunization, K. and K.M. (2017). *Technical Instructions for the Introduction of DPT-HB-Hib (Pentavalent) Immunization in Infants and Implementation of Advanced Immunization in Toddlers*.
- [9] Directorate of Surveillance, I. (2017). *Technical Instructions for the Introduction of DPT-HB-Hib (Pentavalent) Immunization in Infants and Implementation of Advanced Immunization in Toddlers*.
- [10] Dominicus Husada. (2017). *Idai - Diphtheria Extraordinary Events: How Parents Behave*. In *Idai*. <http://www.idai.or.id/artikel/seputar-kesehatan-anak/kejadian-luar-Jadi-difteri-how-orang-tua-behave>
- [11] Fida & Maya. (2014). *Introduction to Pediatrics*. D-Medical.
- [12] Harahap, R. R., Perwitasari, T., & Puspasari, A. (2019). Description of Mother's Knowledge and Motivation regarding Administration of Advanced DPT Immunization (Booster) at the Simpang IV Sipin Health Center, Jambi City. *In Baiturrahim Jambi Academic Journal* (Vol. 8, Issue 2, pp. 61–65). <https://doi.org/10.36565/jabj.v8i2.14>
- [13] *Hepatitis B in Children | Medical Journal*. (n.d.). <https://e-journal.upr.ac.id/index.php/JK/article/view/2033>
- [14] Hidayat, A. A. (2014). *Nursing research methods and data analysis techniques*. Salem Medika.
- [15] <https://dinkes.kalbarprov.go.id/>. (2022). *Important Benefits of Immunization to Prevent Infectious and Non-communicable Diseases, Must Know! In* <https://Dinkes.Kalbarprov.Go.Id/>. <https://dinkes.kalbarprov.go.id/untung-imunisasi-penting-untuk-mendinding-disease-menular-dan-ntak-menular-wajib-tahu/>
- [16] Ibrahim, D. (2016). Factors Associated with Achieving Pentavalent Immunization Coverage in the Work Area of the Danowudu Health Center, Ranowulu District, Bitung City. *In Sariputra E-Journal* (Vol. 3, Issue 1, pp. 32–39).

- [17] Indonesia, I. D. A. (2015). IDAI - Complementing/Pursuing Immunization (Part III). In Idai.or.Id. <https://www.idai.or.id/artikel/klinik/imunisasi/melengkapi-mengejar-imunisasi-bagian-iii>
- [18] Indra Komara Nugraha. (2017). IDAI: Diphtheria Outbreak in Indonesia is the Highest in the World. Detik news.
- [19] Ministry of Health (2019) 'Ministry of Health of the Republic of Indonesia', Ministry of Health of the Republic of Indonesia, p. 1. A. at: <https://www.ministryofhealth.go.id/article/view/19093000001/heart-disease-the-most-common-cause-of-death-k-2-in-indonesia.html>. K. (2019). Ministry of Health of the Republic of Indonesia. In the Indonesian Ministry of Health (p. 1). <https://www.kemkes.go.id/article/view/19093000001/iasis-jantung-pembabab-kematian-terbanyak-ke-2-di-indonesia.html>
- [20] Ministry of Health, R. (2018). Indonesian Health Profile. Ministry of Health of the Republic of Indonesia.
- [21] Republic of Indonesia Ministry of Health. (2019). Cover designed by dr. naseer. Meningococcal Meningitis Detection And Response Guide, 1–100.
- [22] Republic of Indonesia Ministry of Health. (2022). Immunization Catch Up, Complete Delayed Child Basic Immunizations – Sehat Negeriku. In April 11 (p. 1). <https://sehatnegeriku.kemkes.go.id/baca/rilis-media/20220411/5839627/imunisasi-kejar-lengkapi-imunisasi-dasar-anak-yang-tertunda/>
- [23] KPPPA, B. H. and H. (2021). The Ministry of Women's Empowerment and Child Protection. In Kemenpppa.Go.Id. <https://www.kemenpppa.go.id/index.php/page/read/29/1468/peran-bakohumas-support-reputation-government>
- [24] Linda Rofiasari, & Pratiwi, S. Y. (2020). Mother's Knowledge About DPT Booster Immunization and Measles. Oxytocin: *Scientific Journal of Obstetrics*, 7(1), 31–41. <https://doi.org/10.35316/oxytocin.v7i1.556>
- [25] Meilani, N., Darmawan, A., Wahyuddin, W., Dahmar, D., Megawati, M., & Alifariki, L. O. (2020). Employment Relations and Husband's Support for the Provision of Immunizations to Babies in the Working Area of the Kampeonaho Health Center. *Journal of Public Health (Public Health) Equator*, 7(2), 70. <https://doi.org/10.29406/jkkm.v7i2.1938>
- [26] Mubarak, W. I. (2015). Textbook of basic nursing science. Salem Medika.
- [27] Nanda Kharin, A., Fidelia, C. T., Fairuz Auza, D., Sekar Utami, E., Aulia Rahman, F., Annisa Ahlul, F. J., Nurbayani, F. H., Esther, J., Andari, L. H., Priandini, R., Hermawati Public Health Study Program, E., & Public Health, F. (2021). Knowledge, Education, and Attitudes of Mothers towards Complete Basic Immunization in Bogor District. *Journal of Public Health Services (Pengmaskemas)*, 1(1), 25–31.
- [28] Notoadmodjo. (2021). The Effect of Health Education and Knowledge on Parents' Attitudes in Giving Complete Basic Immunization to Infants. *Nursing And Midwifery Education*, 01(2), 41–48.
- [29] Notoatmodjo, S. (2018). Health Research Methodology. PT Rineka Cipta.
- [30] Nugrawati, N., Diii, P., Stikes, K., & Makassar, A. (2019a). Relationship between knowledge and mother's attitude towards complete immunization in toddlers. *Scientific Journal of Brightening Health*, 8(1), 2656–8004.
- [31] Nugrawati, N., Diii, P., Stikes, K., & Makassar, A. (2019b). Relationship between knowledge and mother's attitude towards complete immunization in toddlers. *Scientific Journal of Brightening Health*, 8(1), 2656–8004. <https://stikesmu-sidrap.e-journal.id/JIKP/article/view/104/95>
- [32] Nursalam. (2015). Nursing Science Research Methodology. Salem Medika.
- [33] PerMenKes. (2017). regarding Immunization Administration. (no. 12 (Ed.)).
- [34] Puspitasari S, Rifa'i, S. A. (2018). Relationship between Husband's Social Support and Mother's Activeness in Bringing Toddlers to Posyandu Dahlia II in Pulo Field Hamlet, Pulo Lor Village, Jombang District, Jombang Regency. Jombang Regency Government Stick.
- [35] Rahmi, A. (2019). The Relationship between Knowledge Level and Husband's Support for Complete Basic Immunization in Infants. *Jik- Journal of Health Sciences*, 3(2), 61. <https://doi.org/10.33757/jik.v3i2.159>
- [36] Safitri, F., Andika, F., & Asiah, C. (2020). Health Counseling About the Importance of Providing Advanced Immunization / Booster (DPT-HB-Hib and Measles) to Toddlers in the Work Area of the Leupung Community Health Center, Aceh Besar District Health Counseling on the Importance of Providing Advanced Immunization / Booster (. *Journal of Community Service (Health)*, 2(2), 104–111.
- [37] Suaki, N. I., Qariati, N. I., & Widyarni, A. (2020). Correlation between Employment Status, Motivation and Husband's Support with Complete Basic Immunization in Infants in the Working Area of the Gunung Manggis Health Center in 2020. *Scientific Journal of Health*, 3(2), 10.
- [38] Susila and Suyanto.(2014).Epidemiology Research Methods in the Field of Medicine & Health.Knowledge Exchange.
- [39] Child Immunization Late, Can Still Be Catch Up_ - Primaya Hospital. (n.d.).
- [40] Tetanus, I., Di, T., & Siantan, P. (2019). *Journal of Midwifery*-ISSN 2252-8121 323. 9.

- [41] UNICEF. (2021). Health and children's institutions warn that one child dies from pneumonia every 39 seconds. In Unicef. <https://www.unicef.org/indonesia/id/press-releases/institutions-kesehatan-dan-anak-memeringatkan-satu-anak-meninggal-akibat-pneumonia-every-wikipewdia>.
- [42] wikipewdia. (n.d.). Carboxyhemoglobin - Wikipedia, the free encyclopedia. <https://id.wikipedia.org/wiki/Carboxyhemoglobin>
- [43] Rahmi, N., & Husna, A. (2018). Factors Affecting the Completion of Basic Immunization in Babies in the Work Area of the Peukan Bada Health Center, Aceh Besar District. *Journal of Healthcare Technology and Medicine*, 4(2), 209. <https://doi.org/10.33143/jhtm.v4i2.222>.
- [44] Dinengsih, S., & Hendriyani, H. (2018). The Relationship Between Education, Knowledge, Family Support And The Role Of Health Workers With Mother's Compliance In Carrying Out Basic Immunizations For Infants Aged 0-12 Months In Aweh Village, Lebak District, Banten Province. *Kusuma Husada Health Journal*, 202–212. <https://doi.org/10.34035/jk.v9i2.281>
- [45] Albertina, M., Febriana, S., Firmanda, W., Permata, Y., & Hartono Gunardi. (2009). Completeness of Basic Immunizations for Toddlers and Related Factors at the Children's Polyclinic in Several Hospitals in Jakarta and its Surroundings on. *Sari Pediatrics*, 11(1), 1–7.
- [46] Budiarti, A. (2019). Relationship between Education, Occupation, Attitudes and Family Support for Basic Immunization in Rw 03 Kedung Cowek Kenjeran Village, Surabaya. *Journal of Mesencephalon Health*, 5(2). <https://doi.org/10.36053/mesencephalon.v5i2.107>
- [47] Mely, M., Damanik, R., & Rini, A. S. (2022). Correlation between mother's level of knowledge, parity and family support with completeness of basic immunization for children in midwife Mely's independent practice. *SENTRI: Journal of Scientific Research*, 1(1), 248–255. <https://doi.org/10.55681/sentri.v1i1>