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Factors Influencing Compliance Giving Measles Immunization Tobaby Toddler Age 9-18month

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Abstract, Background:*Measles is an infectious disease caused by the measles virus (morbillivirus). This disease is highly contagious and usually attacks children, although adults who have never been vaccinated or have never had measles are also at risk. Infants do not receive measles immunization at the Timeepa Health Center 50 children. If they do not receive complete and timely immunization, they will be more susceptible to various diseases that should be prevented by immunization, one of which is measles.****Objective:****To determine the effect of maternal knowledge, maternal occupation and maternal attitude on the provision of Measles Immunization to infants aged 9-18 months in the Timeepa Health Center Work Area. Method: Quantitative research type with a cross-sectional approach. The study population was 34 toddlers. The sampling technique used total sampling. Data analysis used the Statistical Program for Social Science (SPSS) version 16.0 application and used the chi-square test. Results: The test of the effect of maternal knowledge p-value 0.000 (<0.05), maternal occupation p-value 0.000 (<0.05), and maternal attitude p-value 0.015 (<0.05). Conclusion: There is an effect of maternal knowledge, maternal occupation and maternal attitude on the provision of measles immunization in the Timeepa Health Center Work Area. Suggestions:Conducting counseling on measles immunization and the importance of integrated health posts, types of activities at integrated health posts regarding measles immunization so that mothers go to integrated health posts more regularly every month and so that toddlers can receive measles immunization.*

Keywords:*Measles Immunization, Mother's Occupation, Mother's Knowledge, Mother's A*ttitude

1. INTRODUCTION

Measles virus is always known as (morbillivirus), is an infectious agent that causes measles. Adults who have never been exposed or infected with measles or have never been immunized can be at risk of contracting this highly contagious disease (Ministry of Health of the Republic of Indonesia, 2023).

Globally, the number of measles cases is increasing rapidly. There were 9,665 cases of measles worldwide in the first two months of 2021, and there were nearly 17,338 cases in the first two months of 2022, an increase of 79%. As of April 2022, it was reported that Somalia, Yemen, Afghanistan, Nigeria, and Ethiopia were the five countries with the most measles cases. The majority of measles cases occur in countries experiencing social and economic crises due to the corona virus nineteen (COVID-19), other crises and conflicts. Countries with inadequate health infrastructure and services are also experiencing this increase (UNICEF and WHO, 2022). Indonesia has seen an increase in suspected and confirmed measles cases compared to previous years since 2022. Eighteen of Indonesia's thirty-eight provinces have reported a total of 2,161 suspected measles cases from January 1 to April 3, 2023. Of these, 848 were confirmed by laboratory tests and 1,313 were clinically suspected

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measles cases. West Java (796 cases), Central Papua (770 cases), and Banten (197 cases) have seen the most cases.

In Indonesia, measles is an endemic disease that is reported annually. However, the number of confirmed cases in 2022 and 2023 has increased significantly compared to the number of cases reported annually since 2018 (920 cases in 2018, 639 cases in 2019, 310 cases in 2020, and 132 cases in 2021). Children who have not been immunized against measles have contributed to the suboptimal community immunity that characterizes the current outbreak. In an effort to strengthen routine immunization and catch-up activities that continue to be carried out to address the gap in population immunity, in 2022 additional immunization activities (SIA) will be carried out targeting children under 15 years of age in high-risk provinces (Aceh, West Sumatra, Riau, Riau Islands, and West Sumatra), children aged 9-59 months in Java Bali Province, and children aged 9-12 years in other provinces (Ministry of Health of the Republic of Indonesia, 2022).

Research by Joria Parmin, Dumasari Lubi, Umi Mustika Sari (2022), proves that there is a relationship between the level of maternal knowledge (p = 0.000) and the mother's suboptimal employment (p = 0.011) with the accuracy of measles immunization at the Kotobangon Health Center. Good knowledge and employment status can influence mothers in bringing their babies to be immunized against measles. Another study conducted by St. Rahmawati Hamzah1, Hamzah B (2022) with the title of the study stated the relationship between maternal knowledge and the provision of measles immunization to infants in the Work Area of the Tanjung Agung Health Center UPT, Baturaja Barat District, Ogan Komering Ulu Regency in 2020 with a P-value of 0.028. So from the results of this study it can be concluded that there is a relationship between maternal knowledge and the provision of measles immunization to infants in the Work Area of the Tanjung Morawa Health Center UPTD, Tanjung Morawa District, Deli Serdang Regency in 2020.

In the last three months, the number of measles cases in Central Papua Province has also increased. Director General of the Center for Disease Control and Prevention (P2P) Maxi Rein Ronndonuwu said, "On March 3, 2023, the total number of measles cases reported was 397 people spread across seven districts that experienced a drastic increase in measles cases, namely Paniai, Mimika, Nabire, Puncak, Intan Jaya, Deiyai and Dogiyai." "Around 48% were confirmed positive for measles in the laboratory," said Director General Maxi, Nabire Regency experienced 4.03 percent with a total of 7 cases. In addition, from the results of the examination, one percent of the community in Mimika Regency was confirmed positive for

measles and rubella. Furthermore, Director General Maxi said, of the confirmed measles and rubella cases, 19 people were still undergoing treatment, 182 people were declared cured, and 2 people died. The number of deaths recorded was two people, one person from Nabire Regency and one person from Dogiyai Regency," said Director General Maxi. According to Director General Maxi, the consumption of measles Rubella (MR) immunization in children in 2022 was the cause of the high number of measles cases in Central Papua Province. The Ministry of Health's report shows that the coverage of MR1 immunization has only reached 64.2% or 48.6%. MR2 immunization: Based on observations in the field, 87% of reported cases have never been immunized with MR. According to Director General Maxi, this occurs in almost all age groups, although most have never been immunized. Therefore, Central Papua Province is considered at risk of measles and rubella transmission. The Ministry of Health has taken a number of preventive measures in response to this incident, including collaborating with the Central Papua Provincial Health Office and the Health Office in seven confirmed districts to increase active surveillance, expand immunization coverage and ensure that health facilities have complete equipment to handle measles cases (Ministry of Health, 2023).

The Dogiyai District Health Office has reported data on infants and toddlers who have received measles immunization in the Dogiyai District area in 2023, namely 200 people, furthermore, it was confirmed that infants who had not received or had measles immunization in 2023 were 40 children.(Dogiya District Health Office, 2023). Meanwhilein the Timeepa Health Center environment, there were 84 babies recorded. The number of babies who had received measles immunization in the Timeepa Health Center work area in 2023 was 34 people, then the number of babies who did not receive measles immunization in 2023 was 50 children in the environment (Timeepa Health Center, 2023).

Children who have not received complete immunizations on time are more susceptible to various diseases that should be prevented by routine immunization, such as tuberculosis, hepatitis, diphtheria and whooping cough. Other health problems are also more common in children who are not immunized. For example, when children contract measles, they often experience complications such as diarrhea, pneumonia, blindness, and malnutrition (UNICEF Indonesia 2021).

Based on the discussion above, the researcher is more interested in conducting research with the research title "Factors that influence compliance with measles immunization for toddlers aged 9-18 months at the Timeepa Health Center". Dogiyai Regency".

2. METHOD

The type of research used is quantitative, which aims to find out how we can connect what happens between various variables using the cross-sectional method in order to try to find out the relationship between variables and research subjects that are collected and measured together (Notoatmodjo, 2012 in Simangunsong, RU 2022).This research was conducted in the work area of the Timeepa Health Center, Dogiyai Regency, which was conducted from April 4 to June 4, 2024. The sample in this study was 34 babies. The instruments in this study were questionnaires, stationery and documentation tools. The data used were primary data and secondary data.

After the data is collected, the researcher can conduct an analysis using the SPSS 16.0 application with a chi-square statistical test with a significance level of 0.05 or α 5%. If the ρ-value <α then Ho is rejected, meaning there is a relationship between the dependent variable and the independent variable. If the ρ-value > α then Ho is accepted, meaning there is no relationship between the dependent variable and the independent variable.

3. RESULTS AND DISCUSSION

Research result

Research Location Overview

Timeepa Health Center is located in Central Papua Province, Dogiyai Regency, which has a working area in the Central Mapia District which oversees four villages, namely Timeepa Village, Gabaikunu, Megai and Adauwo. Timeepa Health Center was built in 1991. Timeepa Health Center was converted into a Health Center. Timeepa Health Center was renovated and additional rooms and houses for medical personnel were built. Timeepa Health Center is the main health center of four villages which have two health centers located in Adauwo Village and Megai Village.

Timeepa Health Center has 11 rooms, namely general polyclinic, dental and oral room, KIA (maternal and child health) room, action room/ER, delivery room, registration room, cashier, pharmacy, laboratory, nutrition polyclinic and complaint service. The boundaries of the Timeepa Health Center Work Area are Modio District forming the northern boundary, Abouyaga District forming the eastern boundary, Unito District forming the southern boundary and Piyaiye District forming the western boundary.

Geographically, the Timeepa Health Center (main health center building) is located in a strategic location, namely on the side of the elementary school road and residential houses with inadequate road access because the distance between the residents' houses is far apart, while the locations of Adauwo and Megai are less strategic because they are located in two villages that are not directly visible., so it is not easy to reach by car or motorbike, which means people have to walk.

Respondent Characteristics

Respondent characteristics are the criteria given to the research subjects, so that the source of information in the research is directed appropriately. The following is a table of respondent characteristics in this research:

a. Toddler age

The term "age" refers to a person's age from birth to their birthday (Nursalam di Batbual, 2021). The Ministry of Health defines toddlers as children aged between 0-59 months (ADM PKL, 2021). The suggestion in this study is toddlers aged 9-18 months. The characteristics of respondents based on toddler age are listed in the following table:

Table 1 Respondent Characteristics Based on Toddler Age in the Timeepa Health Center Work Area Dogiyai Regency

Toddler Age	f	%
9-12 Months	23	67.6
13-18 Months	11	32.4
Total	**34**	**100.0**

Source: Primary Data, 2024

Based on table 4.1, it can be seen that of the 34 toddler respondents, the highest age was 9-12 months, namely 23 toddlers (67.6%), and the lowest age was 13-18 months, namely 11 toddlers (32.4%).

b. Toddler gender

The socially constructed characteristics of men and women, such as norms, roles, and relationships between groups of men and women, are what the World Health Organization (WHO) considers gender. Gender can change over time and varies from one community to another (Komnas HAM, 2020). The characteristics of respondents based on the gender of toddlers are shown in the following table:

Table 2 CharacteristicsRespondents by GenderIn the Timeepa Health Center Working Area Dogiyai Regency

Gender	f	%
Man	12	35.3
Woman	22	64.7
Total	34	100.0

Source: Primary Data, 2024

Based on table 4.2, it can be seen that of the 34 respondents of toddlers aged 9-18 months, the highest number of females was 22 toddlers (64.7%), while the lowest number of male gender was 12 toddlers with a percentage of (35.3%).

Univariate analysis

The frequency distribution of respondents and description of dependent and independent variables in tabular form is the goal of univariate analysis.(Handarni., et al, 2020).

a. Mother's Job

According to Wiltshire in 2016, "work is a social activity carried out in a certain location, whether it is done in groups or individually within a certain period of time, sometimes with the hope of getting compensation in the form of money (or other forms), or without hope of compensation but accompanied by a sense of responsibility towards others". Work is a social activity (Wandani, NKA S and M. Margaretha, 2022)

The following is a frequency distribution table of respondents based on mother's occupation:

Table 3. Frequency Distribution Based on Mother's OccupationIn the Timeepa Health Center Working Area Dogiyai Regency

Mother's Job	f	%
Work	30	88.2
Doesn't work	4	11.8
Total	**34**	**100.0**

Source: Primary Data, 2024

Based on table 4.3, it can be seen that the distribution of respondents based on their mother's occupation is that there are 30 working mothers (88.2%), while there are 4 mothers who do not have jobs (11.8%).

b. Mother's Knowledge

A person's actions are guided by what he knows, and knowledge can also be interpreted as the result of sensing everything that has happened and passed based on experience (Prasetya, WD, 2022). The frequency distribution of respondents' level of maternal knowledge is shown in the table below:

Table 4 Distribution of Respondent Frequency Based on Mother's Knowledge LevelIn the Timeepa Health Center Working Area Dogiyai Regency.

Mother's Knowledge Level	f	%
Good	3	8.8
Not enough	31	91.2
Total	**34**	**100.0**

Source: Primary Data, 2024

Based on table 4.4, it can be seen that of the 34 respondents, the level of knowledge of mothers of toddlers was good knowledge for 3 mothers of toddlers (8.8%), while knowledge was lacking for 31 mothers of toddlers (91.2%).

c. Mother's Attitude

Attitude is an expression of a person's feelings that reflect their likes or dislikes for an object. According to Kastori. R. 2023, an individual's attitude is a positive or negative reaction to a particular object, which is usually reflected in feelings of like or dislike and agreement or disagreement. The frequency distribution of respondents based on the mother's attitude is shown in the table below:

Table 5 Frequency Distribution of Respondents Based on Mother's AttitudeIn the Timeepa Health Center Working Area Dogiyai Regency

Mother's Attitude	f	%
Good	33	97.1
Not good	1	2.9
Total	34	100.0

Source: Primary Data, 2024

Based on table 4.5, the distribution of respondents according to the level of attitude of mothers of toddlers is as follows: 33 respondents (97.1%) had good knowledge and 1 respondent (2.9%) had poor knowledge.

d. Measles Immunization Administration

Measles immunization is one of the basic immunizations required for children in Indonesia. This is important to protect children from the risk of this dangerous disease. The first measles immunization can be given to children when they are 9 months old (Fadli, R., 2022). The following is a table of the frequency distribution of respondents based on the provision of measles immunization:

Table 6. Frequency Distribution of Respondents Based on Measles ImmunizationIn the Timeepa Health Center Working Area Dogiyai Regency

Measles immunization	f	%
No	29	85.3
Yes	5	14.7
Total	**34**	**100.0**

Source: Primary Data, 2024

Based on table 4.6, it can be seen that of the 34 respondents who had been given measles immunization, 5 toddlers (14.7%) had been given measles immunization, while 29 toddlers (85.3%) had not received measles immunization.

Bivariate Analysis

The purpose of bivariate analysis is to determine whether the dependent variable and independent variable are related or not. For this, a chi-square statistical test analysis can be used with a significance level of 0.05 or α 5%. If ρ-value <α then Ho is rejected, which means there is a relationship between the dependent variable and the independent variable. If ρ-value > α then Ho is accepted, which means there is no relationship between the dependent variable and the independent variable.

a. The Influence of Mother's Occupation on Compliance with Measles ImmunizationIn infants and toddlers aged 9-18 months in the Timeepa Health Center Working Area, Dogiyai Regency.

The results of the examination to analyze information using the SPSS Version 16.0 program to determine the impact of maternal employment on measles vaccination compliance in toddlers aged 9-18 months in the Timepa Health Center Workroom:

Table 7 The Influence of Mother's Occupation on Measles Immunization for Toddlers Aged 9-18 Months in the Timeepa Health Center Work Area Dogiyai Regency.

Mother's Job	Measles Immunization Administration						P (Value)
	No		Yes		Amount		
	f	%	f	%	f	%	
Work	29	85.3	1	3.3	30	88.6	
Doesn't work	0	0	4	11.4	4	11.4	0.00
Total	**29**	**85.3**	**5**	**14.7**	**34**	**100**	

Source: Primary Data, 2024

Based on the results of the analysis, it can be seen in table 4.7 that, from the results of the analysis that has been carried out, a p-value (0.00) < 0.05 was obtained, which indicates that there is an influence betweenmaternal occupation with compliance in administering measles immunizationin toddlers aged 9-18 months in the Timeepa Health Center Work Area.

b. The Influence of Mother's Knowledge on Toddler Compliance to Provide Measles Immunization in the Timeepa Health Center Working Area, Age 9-18 months.

The results of data analysis using the computer program release statistical program for social science (SPSS) version 16.0 to determineThe influence of maternal knowledge on compliance with measles immunizationin toddlers aged 9-18 months in the Timeepa Health Center Work Area.

Table 8 The Influence of Mother's Knowledge on Measles Immunization for Toddlers Aged 9-18 Months in the Timeepa Health Center Work AreaDogiyai Regency.

Mother's Knowledge	Measles Immunization Administration						P (Value)
	No		Yes		Amount		
	f	%	f	%	f	%	
Good	0	0	3	8.9	3	8.9	
Not enough	29	85.3	2	5.8	31	91.1	0.00
Total	**29**	**85.3**	**5**	**14.7**	**34**	**100**	

Source: Primary Data, 2024

Based on table 4.8, it can be seen that the results of the analysis that has been carried out obtained a p-value (0.00) < 0.05, which indicates that there is an influence.maternal knowledge and compliance with measles immunizationin toddlers aged 9-18 months in the Timeepa Health Center Work Area.

The impact of mothers' attitudes on compliance with measles immunization in children aged 9-18 months in the Timeepa Health Center workspace.

The impact of data examination using the adaptation of PC Delivery Factual Program for Sociology (SPSS) 16.0 to determine the impact of maternal attitudes on measles immunization compliance in infants and children aged 9-18 months in the Timeepa Health Center Workroom.

Table 9 The Influence of Mother's Attitude on Measles Immunization for Toddlers Aged 9-18 Months in the Timeepa Health Center Work Area Dogiyai Regency.

Mother's Attitude	**Measles Immunization Administration**						
	No		**Yes**		**Amount**		**P (value)**
	f	**%**	**f**	**%**	**f**	**%**	
Good	29	85.3	4	11.4	33	97.0	
Not good	0	0	1	3.3	1	3.0	0.01
Total	**29**	**85.3**	**5**	**14.7**	34	100	

Source: Primary Data, 2024

Based on table 4.9, it can be seen that from the results of the analysis above that has been carried out and obtained a p-value (0.01) < 0.05 which shows the influence of maternal mentality on the consistency of measles immunization in infants aged 8-19 months in the Timeepa Health Center Working Area, Dogiyai Regency.

Discussion

The Influence of Mother's Occupation on the Frequency of Measles Immunization in Infants Aged 9 to 18 Months in the Work Environment of Timeepa Health Center Dogiyai Regency.

The word "work" comes from the etymology of the word "work". Work is a noun that can refer to an activity carried out with the aim of earning a living or livelihood. While the term "work" itself refers to something that is done, "busyness", "work", and "obligations" related to the work (function) of something, (Ningrum, 2015).

The timing of measles vaccination is closely related to the mother's occupation. Compared to working mothers, unemployed mothers have more time to take their children to health services to provide all immunizations to their children. This is because mothers who work outside the home or are under work pressure often forget to provide their children with immunizations on time. In Sudan, compliance with measles immunization is closely related to the mother's occupation; self-employed mothers tend to only partially vaccinate their children, while housewives tend to provide complete immunizations (Sabahelzain et al., 2022).

Based on table 4.7, the majority of the 34 children were born to mothers who had jobs. As a result, 29 people (96.7%) did not receive measles immunization, one person (3.3%) received immunization, and 4 people (100%) had mothers who did not work and their children received measles immunization. The results of hypothesis testing using Chi-square obtained a p-value (0.00) <0.05 meaning that Ho was rejected, indicating that there was a significant influence between the mother's job andMeasles Immunization AdministrationIn 9-18 Month Old Babies in the Timeepa Health Center Working Area. This is because mothers who do not work generally have more time to care for children and provide all basic immunizations that are complete, including measles immunization. Because they have to work outside the home, mothers who do not work outside the home can also behave better in providing immunizations to children without having to base it on work reasons because they have to leave the house.

The results of this study are the same as previous research conducted by Sri Wahyuni, Nasir Muna, Hikmawati in 2024 with the title "The Relationship Between Mother's Work and Knowledge with Measles Immunization in Toddlers Aged 9-24 Months". The results of the Chi-square Statistical test on the relationship between mother's work and measles immunization in toddlers aged 9-24 months, the p-value = 0.014 or less than a = 0.05 (0.01 <0.05). So it can be concluded that there is a relationship between mother's work and measles immunization in toddlers aged 9-24 months. This is because even though most mothers do not work, no matter how busy the mother's work is, they always have time for their children and still take their children to get health services such as measles immunization.

Measles immunization is an important method to prevent disease, disability and death so that people exposed to the condition never feel sick or only feel mild pain later. Giving to infants under 1 year of age is very important. The purpose of this study was to determine the determinants associated with measles immunization at the Timeepa health center. In this

study, researchers used a cross-sectional approach and observational research design. The cross-sectional research design examines the relationship between exposure and disease by examining both object statuses simultaneously (Agustina Yuniarti Teti, Miftahul Jannah 2022).

The results of this study are in line with St. Rahmawati Hamzah & Hamzah B than 2022 with the title "The Relationship between the Accuracy of Measles Immunization at the Kotobangon Health Center with Mother's Knowledge and Occupation." shows that where the respondents who worked were 23 respondents, where the respondents who correctly carried out measles immunization were 5 respondents (21.7%) while those who did not carry out measles immunization were 18 respondents (78.3%) while respondents who did not work were 20 respondents where the respondents who did not correctly carry out measles immunization were 7 respondents (35.0%) and those who correctly carried out measles immunization were 13 respondents (65.0%). The results of the chi square test showed a p-value of 0.01 <0.05, this means that there is a significant relationship between work and the accuracy of measles immunization in the Kotobangon Health Center work area.

In Nurni's research (2012), the Health Service stated that measles is one of the diseases that can be prevented by immunization (PD3L). Measles immunization given to prevent measles which is given and can be obtained at health centers, hospitals, and integrated health posts is one of the basic immunizations initiated by the government. (Miftahul Jannah, Augustina Yuniarti teti, 2022).

According to Notoadmodjo (2010), a person's knowledge of an object includes positive and negative aspects. Information is everything that is known about information as a consequence of knowledge and this occurs after someone detects a particular object. As indicated by the analyst's assumption, information is the thing that has the best impact on mothers because information will determine the child's life in the future (Agustina Yuniarti Teti, Miftahul Jannah 2022).

The results of this study are consistent with previous research conducted by Nuril Absari et al in 2023 entitled "Factors Related to the Provision of Advanced Measles Rubella Immunization in Toddlers at the Tebing Tinggi Health Center, Empat Lawang Regency". The results of the study showed that out of 33 working respondents, 24 respondents did not receive advanced measles rubella immunization and 9 respondents received advanced measles rubella immunization. Of the 23 mothers of toddlers who did not work, 2 respondents did not receive advanced measles rubella immunization and 21 respondents

received advanced measles rubella immunization in the Tebing Tinggi Health Center Work Area, Empat Lawang Regency. From the results of the chi-square test with the continuity correction test, the p value = 0.00>α= 0.05. This shows that there is a relationship between work and the provision of measles rubella follow-up immunization to toddlers in the Tebing Tinggi Health Center Work Area, Empat Lawang Regency, with a close relationship category.

According to research assumptions, work greatly influences maternal knowledge, mothers who work will have more knowledge about measles immunization because they have a broad environment and experiences from their colleagues, this will affect their mindset about measles immunization compared to mothers who do not work, the environment for these mothers to get information is very minimal. (Agustina Yuniarti Teti, Miftahul Jannah 2022).

The results of this study are not in accordance with the study conducted by Srilina Afriana, Eulisa Fajriana, and Aswatul Ulfa in 2021 entitled "Factors Influencing Mothers in Providing Measles Immunization to Toddlers in Cot Bada Tunong Village, Peusangan District, Bireuen Regency". Based on the Chi-Square statistical test, there is no relationship between the mother's occupation and the provision of measles immunization. The p Value (0.47)> α (0.05) so Ha is rejected. This decision is based on the p Value (0.05), meaning Ho is accepted if p> α (0.05). Based on this study, the mother's occupation or not working is not a factor in the mother's measles immunization because no matter how good her job is, the mother still cannot get measles immunization without her husband's approval.

The research that has been studied by Srilina br Pinem, Lince Sembiring and Nadia Febriani Sembiring in 2010 is not in line with this research. This is because based on the results of interviews with respondentsin fact, mothers who do not leave the house to work have more time to take care of and care for their babies, one of which is by participating in integrated health post activities to provide complete basic immunizations including measles immunization. In addition, mothers who do not work have a greater chance of being more obedient to immunizations because they are not limited by the requirements to work outside the home.

The Influence of Mother's Knowledge on Compliance with Measles ImmunizationIn Infants Aged 9-18 Months in the Timeepa Health Center Work Area Dogiyai Regency

A person's level of education affects their level of knowledge. The higher the level of education, the higher the level of knowledge. In addition to education, another factor that can

increase a person's knowledge is participation in training or counseling. Reading print or electronic media (internet) can enrich a person's knowledge base. This means that even without formal education, a person's knowledge has high expectations for the success of the immunization program, so their knowledge can increase. This can be done by increasing public awareness of the benefits of immunization for children and society as a whole (Antinah, 2013).

A person will be more likely to use his knowledge, in this case to fully immunize his toddler, if he has more knowledge about vaccination. If there are people who create knowledge, it is information. According to (Ismet, 2013 in Pratiwi, NNY 2019) "The better a person's knowledge, the easier it is to receive information", the less information obtained, the less knowledge".

Based on table 4.8, it can be seen that out of 34 respondents, the majority of mothers' knowledge is lacking, whose children were not immunized against measles, as many as 29 people (93.5%) and received measles immunization as many as 2 people (6.5%), while mothers' knowledge is good, as many as 3 people (100%) whose children received measles immunization. The results of hypothesis testing using Chi-square obtained a p-value (0.00) <0.05, meaning that Ho is rejected, indicating that there is a significant influence between maternal knowledge andMeasles Immunization AdministrationIn Infants Aged 9-18 Months at the Timeepa Health Center Work Base.

If there is an influence between the knowledge possessed by the mother and the provision of measles immunization, this is due to ignorance about the importance of measles immunization, so that they do not take their babies to the health center or integrated health post to be immunized against measles.

Worldwide, measles is a year-round epidemic that kills more children than any other disease. Measles affects an estimated 30 million people each year. There were 777,000 cases of measles reported worldwide in 2002, with 202,000 cases occurring in ASEAN countries and Indonesia accounting for 15% of these cases. According to reports on measles cases in Java, especially in West Java, which ranged from 72 to 82% between 2006 and 2009, there was an increase in measles cases among children aged 5 to 9 years. Measles killed 345,000 people worldwide in 2005, with an estimated 311,000 of these deaths occurring in children under 5 years of age. There were 663 deaths per day, or 27 per hour, in 2006. WHO (Organization 2012).

Explains that, despite the availability of safe and effective immunization, measles remains one of the leading causes of child death worldwide. In 2013, around 145,700 people died from measles, most of whom were children under the age of five as reported by the organization (2012). One of the goals towards a thousand years (MDGs) is to overcome child mortality through immunization. As a real manifestation and consistency of the government in achieving the MDGs, especially for efforts to reduce child mortality, the vaccination program is one of the main priorities of the Ministry of Health (Kemenkes, 2013). One way to assess a person's health is by looking at maternal and infant mortality rates. The Millennium Development Goals (MDGs) are an initiative of 189 UN member countries to achieve eight main development goals. One of the indicators, according to Hidayat (2008) is the percentage of children under one year of age who have received measles immunization. Reducing infant mortality by two-thirds between 1990 and 2015 is one of the MDGs goals listed in point 4 (MDGs 4). Therefore, maternal participation in the measles immunization program is very important because of the close relationship between maternal factors and the use of health facilities by mothers who have small children. On the other hand, there are also mothers who are afraid that their children will contract the disease and assume that they do not need to be immunized because they are no longer able to fight the disease due to various factors, including; lack of maternal awareness of the benefits of measles immunization and lack of maternal knowledge about the importance of measles immunization. In an effort to increase immunity to a disease, immunization is the process of introducing damaged or weakened germs into the body. Enemies in the form of substances that can be used to fight microbes or microorganisms that attack the body by spreading microorganisms or microbes can be sent by the body (Ranuh, 2011).

The results of this study are in accordance with the 2023 study by Lin Tiara Putri and Titin Eka Sugiantini entitled "The Relationship Between Education, Knowledge and Family Support for Measles Immunization Compliance in Infants". The majority of mothers know that babies who are not immunized against measles have sufficient knowledge, namely 21% (11 people), less knowledge (15 people), and good knowledge (2 people). Meanwhile, most mothers of immunized babies have sufficient knowledge of 12% (6 babies), less knowledge of 12% (6 babies), and have no knowledge at all of 12% (6 babies). The p value (0.00)> 0.05 was found using the Chi Square test. Thus, it can be concluded that awareness of measles and immunization has a significant relationship.

The results of this study are also in line with research conducted by Hilda Irianty in 2018 entitled "The Relationship between Knowledge, Attitude and Age of Mothers and Measles Immunization in the Barikin Health Center Work Area". Of the respondents with sufficient knowledge, there were 16 respondents (72.7%) who did not immunize their babies against measles. Of the 34 respondents with good knowledge, there were 9 respondents (26.5%) who did not immunize their babies against measles. The results of the statistical test with the Chi Square test, obtained a p-value (0.00) which means that there is a significant relationship between knowledge and measles immunization, the better the mother's knowledge, the more the mother agrees that her baby is immunized against measles.

The results of this study are also in line with the 2029 study entitled "Mother's Knowledge Regarding Measles Immunization Compliance" by Ebrina Yosianty and Irma Darwati. The study for knowledge and compliance obtained a p-value = 0.001, so the researchers concluded that maternal knowledge and measles immunization compliance were related. This study found that out of 9 respondents with good knowledge, 7 people (20.5%) gave measles immunization to their children. Meanwhile, out of 10 respondents with sufficient knowledge, 4 people (9.1%) did not give measles immunization to their children, and 25 respondents with less knowledge did not give measles immunization to their children 21 people (47.7).

Prevention of disease in individuals, eradication of disease in a population, or prevention of disease as a whole are the goals of immunization, such as smallpox immunization. Darmawati (2017) stated that the principle of health is violated when the general public is not aware of their health. In line with that, limited or even inappropriate public understanding of immunization is caused by the fact that the immunization target to cover all infants has not been met in some areas. Infants who have been immunized have developed immunity to the disease. Therefore, mothers should provide measles immunization to their children as soon as possible to prevent future disease. If people have a high level of knowledge and have a strong commitment to immunization and make serious efforts on an ongoing basis, vaccination programs can be successful. Preventive intervention programs such as immunization that will be implemented seriously in response to changes in disease patterns and problems affecting children and adolescents are needed if the evaluation of public health behavior is to be improved (Lin et al., 2015).

Based on some of the research descriptions above, the results of this study do not agree with the research conducted by Nurul Wakhidin & Revan Likuallo in 2018 entitled "The Relationship Between Mother's Knowledge and Attitudes with Measles Immunization Status in Children in the Galesong Health Center Area, Takalar Regency". Based on the results of the chi square statistical test, the ρ value = 0.193 was obtained, this indicates ρ > α, meaning that there is no relationship between mother's knowledge and measles immunization status in children in the Galesong Health Center area. There is no relationship between mother's knowledge and measles immunization status in the Galesong Health Center area, because when the mother has low knowledge about measles immunization, it is possible that the mother will be obedient in bringing her child for measles immunization. With the reason that her child is sick and afraid to bring her child to be immunized with side effects.

The research conducted by Nurul Wakhidin & Revan Likuallo in 2018 is not the same as this research. This is because based on the results of interviews with respondentsThere is an influence between maternal knowledge and the provision of measles immunization. This is due to the lack of knowledge and information about the importance of measles immunization, so mothers should take their children to the health center and integrated health post, but this is delayed or they do not take their babies to the health center or integrated health post to be immunized against measles.

The Influence of Mother's Attitude on Compliance with Measles ImmunizationIn Infants Aged 9-18 Months in the Timeepa Health Center Work Area Dogiyai Regency

Attitude is a closed response to a particular stimulus or object that already includes the opinions and emotions of the person concerned. According to Notoatmodjo (2007) in (Asikin ZA 2020), a person's attitude and knowledge have an impact on how they utilize health services that can help them see things from a broader perspective, think rationally and act rationally.

Based on table 4.9, it can be seen that out of 34 respondents, the majority of mothers' attitudes were good, whose children were not given measles immunization, as many as 29 people (87.9%) and received measles bacteria immunization, as many as 4 people (12.1%), while the mothers' attitudes were not good, as many as 1 person (100%) whose children received measles immunization. The results of hypothesis testing using Chi-square obtained a p-value of 0.01 <0.05, meaning that Ho was rejected, indicating that there was a significant influence between the mother's attitude andMeasles Immunization AdministrationIn Infants Aged 9-18 Months in the Timeepa Health Center Working Area, Dogiyai Regency.

The researcher's opinion, the majority of mothers who have a good attitude, namely in this case the mother only has the attitude of wanting to bring the baby to be immunized. But do not do it, namely not bringing the baby to be immunized, while mothers who have a bad attitude are caused by the lack of support from family members for mothers to immunize their children and mothers are not so sure that immunization is important for babies.

The results of this study are the same as previous research by Agus Jalpi & Achmad Rizal in 2016 entitled "Factors Related to the Provision of Measles Immunization to Toddlers in the Work Area of the Banjarmasin City Health Center in 2016" The results showed that respondents who had a negative attitude and did not provide measles immunization were 49 people (76.6), while respondents who had a positive attitude and did not provide measles immunization were 15 people (41.7%). Based on the statistical test value (p-value = 0.00), it means that there is a relationship between the mother's attitude and the provision of measles immunization to toddlers in the work area of the Banjarmasin City Health Center in 2016.

The results of this study are also in accordance with the 2018 study entitled "Factors Related to the Provision of Measles Immunization to Infants Aged 9-12 Months at the Sukakarya Health Center, Sabang City" by Fauziah Andika and Khairaniswati. Of the 26 respondents, 96.2% of mothers had a positive attitude towards the provision of measles immunization, while of the 13 respondents, 46.2% of mothers had a negative attitude. The results of the statistical test showed a value (p-value = 0.01), which indicates that there is a relationship between attitudes and the provision of immunization at the Sukakaya Health Center, Sabang City.

Positive thinking can help mothers feel confident and not afraid to give measles immunization to their children. Mothers who think positively believe that if they receive measles immunization, their children can be protected from the disease. On the other hand, mothers who are against measles immunization will not give immunization to their children. Many mothers are afraid not to immunize their children, because they are worried that if they do, their children will have a fever. They are also worried that the immunization may contain chemicals that are bad for the body. Mothers who think negatively also believe that every child's body already has immunity so they do not need to give immunization to their children.

The results of this study are in line with research conducted by Hilda Irianty in 2018 entitled "The Relationship between Knowledge, Attitude and Age of Mothers and Measles Immunization in the Barikin Health Center Work Area". Of the respondents who had a negative attitude, there were 20 respondents (66.7%) who did not immunize their babies

against measles. Of the 30 respondents with a positive attitude, there were 7 respondents (23.3%) who did not immunize their babies against measles. The results of the statistical test with the Chi-Squere test, obtained a p-value = 0.007, this means that there is a significant relationship between attitudes and measles immunization in babies, the more positive the mother's attitude, the more she agrees that her baby is immunized against measles, conversely the more negative the mother's attitude, the more she disagrees with her baby being immunized against measles.

The results of this study are not in line with the study conducted by Srilina Br Pinem, Lince Sembiring & Nadia Febriani Sembiring in 2020 entitled "Factors Influencing Toddler Visits in Measles Immunization at the Posyandu Pertibi Tembe Village, Merek District in 2019" There is no significant relationship between the mother's attitude and the provision of measles immunization. Attitude is a reaction or response from someone who is still closed to a stimulus or object. Attitude is also a readiness or willingness to act and is not an implementer of a particular motive. Attitude is not identical to a response in the form of behavior. This can be seen from the respondents who have a good attitude towards immunization of 94.4%. Although the attitudes of most mothers are good, there are still many mothers who do not agree if measles immunization is given to children aged 9-11 months, namely 23.3%. This could be because the mother assumes that her child still has immunity from the immunization obtained previously.

Measles is an infectious disease caused by a virus known as Paramyxovirus, and mostly affects children. Droplets from an infected person travel through the respiratory tract to spread the virus. High fever, runny nose, red eyes, and small white spots in the mouth are common symptoms of the disease 10 to 12 days after infection. Red spots will start to appear on the face and upper neck after a few days and then spread downward (WHO, 2015).

Positive attitudes can encourage mothers to give measles immunization to their children with confidence. Mothers who have positive attitudes believe that giving measles immunization to their children can prevent the disease. When mothers have negative attitudes towards measles immunization, they will make their children reluctant to receive immunization. Many mothers are afraid not to give their children vaccines because they are worried that if they do, their children will have a fever. In addition, they are worried that the immunization may contain dangerous chemicals. Mothers who are not confident may also believe that immunization is not necessary because every child's body already has immunity. (Fauziah Andika and Khairaniswati, 2018).

Research by Srilin Br Pnem, Lince Sembiring, and Nadia Febriani Sembiring conducted in 2020 does not support this study. This is because based on the results of interviews with respondents, most mothers have a positive attitude towards the desire to bring their babies for immunization, but do not bring their babies for immunization. Conversely, mothers who have a less positive attitude towards the desire to bring their children for immunization are more likely to receive support from family members and are less convinced that immunization is important for babies.

4 CONCLUSION

There is an influence of the results of the analysis of maternal employment factors on the provision of measles immunization to toddlers aged 9 to 18 months in the Timeepa Health Center Work Area, Dogiyai Regency because the p-value (0.00) <0.05 was obtained.

There is an influence of the results of the analysis of maternal knowledge on the provision of measles immunization to toddlers aged 9 to 18 months in the Timeepa Health Center Work Area, Dogiyai Regency because the p-value (0.00) <0.05 was obtained.

There is an influence of the results of the analysis of mothers' attitudes towards providing measles immunization to toddlers aged 9 to 18 months in the Timeepa Health Center Working Area, Dogiyai Regency because the p-value (0.01) <0.05 was obtained.

Suggestion

For parents of toddlers

Parents of toddlers are expected to take their children to the integrated health post to see how their growth and development are and to receive immunizations, especially measles immunizations.

For the Dogiyai District Health Service.

For the Dogiyai District Health Office, this research can be used as input regarding measles immunization for toddlers, and monitoring toddler development so that the Health Office can improve children and increase knowledge by providing counseling or education, especially for mothers who have toddlers.

For Timeepa Health Center

For health workers to be able to improve the quality of health services to the community and often hold counseling, especially about providing measles immunization and the importance of integrated health posts, the types of activities available at integrated health

posts so that mothers can go to integrated health posts more routinely every month and toddlers can receive measles immunization.

For Persada Nabire Health College

For STIKes Persada Nabire, the results of this study are expected to be used as study material and references that can help for further research activities and the results of this study can be used as a good reason to carry out health promotion.

For Further Researchers

For further researchers, the results of this study are not yet perfect. It is hoped that further researchers will be able to develop research with other variables, or increase the number of respondents to optimize the results of the research to be conducted.

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