



## Complete Basic Immunization for Babies at the Manisa Health Center

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### Abstract

Immunization is the most effective and efficient public health effort in preventing diseases and reducing mortality, such as smallpox, polio, tuberculosis, hepatitis B, diphtheria, measles, rubella and congenital rubella syndrome (CRS), tetanus, pneumonia (inflammation of lungs) and meningitis (inflammation of the lining of the brain). Immunization aims to provide immunity to the child's body by administering a vaccine. Vaccine is a drug that is given to help prevent a disease. There are still many who have not received complete immunization due to various reasons such as lack of knowledge of mothers about immunization and low awareness of mothers bringing their babies to Posyandu or Puskesmas to get complete immunization, lack of explanation from health workers about the benefits of immunization including the factor of low maternal education. The purpose of this study was to determine the relationship between education, knowledge and attitudes of mothers at the Manisa Health Center. This research is analytic with a cross sectional approach, in this study were mothers who had babies, with a total sampling technique obtained 30 respondents. Data collection was carried out using a questionnaire as a research instrument. The data that has been collected is then processed and analyzed using the chi-square test. The results of statistical analysis, obtained a relationship between education and completeness of basic immunization in infants ( $0.007 < 0.05$ ), there is a relationship between knowledge and completeness of basic immunization in infants ( $0.000 < 0.05$ ) and there is a relationship between attitude and completeness of basic immunization in infants ( $0.000 < 0.05$ ). Based on the results of this study it was concluded that there was a relationship between education, knowledge and attitudes of mothers with the completeness of basic immunization in infants. Through this research, it is hoped that health workers at the Manisa Health Center will be more active in providing counseling and information about immunization services and for researchers to add experience and apply the knowledge they have gained.

**Keywords:** Mother, Knowledge, Immunization, Babies, Health Center

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## 1. Introduction

Immunization is giving the body immunity against a disease by putting something into the body so that the body is resistant to diseases that are epidemic or dangerous to someone. Immunization comes from the word immune which means immune or resistant (Lisnawati, 2011).

The purpose of immunization is primarily to provide protection against diseases that can be prevented by immunization. According to the Minister of Health of the Republic of Indonesia (2017), the immunization program in Indonesia has a general goal of reducing morbidity, disability and death from diseases that can be prevented by immunization (PD3I). Meanwhile, the specific objectives of this immunization include achieving complete basic immunization coverage (IDL) for infants according to the RPJMN target (2019 target of 93%), achieving Universal Child Immunization/UCI (minimum percentage of 80% of infants receiving IDL in a village) in all villages, and achieving reduction, elimination, and eradication of diseases that can be prevented by immunization.

Basic immunization is the administration of initial immunization to achieve immunity levels above the protection threshold. Universal Child Immunization (UCI) is a condition of achieving complete basic immunization for all infants. Infants are children under the age of one year (Purnamaningrum, 2011).

According to data from WHO (2008), based on global estimates made by WHO in 2007 the implementation of toddler immunization can prevent approximately 25 million under-five deaths each year due to diphtheria, tetanus, pertussis (whooping cough) and measles. Worldwide, the coverage of polio immunization received by infants with 3 doses of polio vaccine in 2007 was 82% and the coverage of Hepatitis B immunization with 3 doses of vaccine was 65%. Meanwhile, the coverage of DPT and measles immunization was 81% and 82%, respectively (Makamban, et al, 2014).





From data from the South Sulawesi Provincial Health Office, the immunization program that has been attempted so far has shown satisfactory coverage results. In South Sulawesi alone, the immunization coverage achieved was 80.97% in 2009, in 2010 the UCI achievement decreased to 77.47%, in 2011 the UCI achievement increased 84.70% and in 2012 it became 90.32% (DHO Province of South Sulawesi, 2013).

The benefits of immunization are not only felt by the government by reducing morbidity and mortality for diseases that can be prevented by immunization, but can be felt by: a. Children, namely preventing suffering caused by disease and possible disability or death. b. Families, namely eliminating anxiety and medical expenses when children are sick, encourage the formation of families when parents believe that their children will have a comfortable childhood. c. The state, namely improving the level of health, creating a strong and intelligent nation to continue the development of the country (Proverawati, 2010: 5-6)

## 2. Research Method

The research method used was an analytic observational research type with a "Cross Sectional" approach, carried out at the Manisa Health Center, on July 21, 2022. The population in this study were all mothers who had babies who visited the Manisa Health Center, totaling 30 people. The sampling technique uses the "Total Sampling" technique, which is a sampling method by taking the entire population as a sample (Notoatmodjo, 2012).

How to collect data in this study using survey methods, namely questionnaires and observation. The research instrument includes three parts: the first part contains the demographic data of the respondents including the mother's initials, baby's name, mother's age, child's age, and mother's last education. Then the second part contains data on knowledge and attitude questionnaires, the third part contains observation sheets for the completeness of basic immunization in infants.





### 3. Results And Discussions

#### a. Result

##### Univariate analysis

**Table 1.**  
**Distribution of respondents based on the age of the mother at the Manisa Health Center**

Age	Amount	Percentage (%)
15-20	7	23.3
21-30	17	56.7
>30	6	20.0
Total	30	100

Based on the table above, it shows that the most respondents are aged 21-30 years as many as 17 respondents (56.7%) and the smallest respondents are aged > 30 years as many as 6 respondents (20%).

**Table 2.**  
**Distribution of respondents based on the education of mothers who have babies at Manisa Health Center**

Education	Amount	Percentage (%)
Low	18	60.0
Tall	12	40.0
Total	30	100

Based on the table above, it shows that there are 18 respondents (60%) with low education and 12 respondents (40%) with high education.

**Table 3.**  
**Distribution of respondents based on mother's knowledge of Immunization basis in infants at the Manisa Health Center**

Knowledge	Amount	Percentage (%)
Not enough	10	33.3
Good	20	66.7





Total	30	100
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Based on the table above, it shows that 10 respondents (33.3%) have less knowledge and 20 respondents (66.7%) have good knowledge.

**Table 4.**  
**Distribution of respondents based on mother's attitude about basic mmunization in infants at the Manisa Health Center**

Attitude	Amount	Percentage (%)
Does not support	10	33.3
Support	20	66.7
Total	30	100

Based on the table above, it shows that 10 respondents (33.3%) have an unsupportive attitude and 20 respondents (66.7%) have a supportive attitude.

**Table 5.**  
**Distribution of respondents based on mother's knowledge at the Manisa Health Center**

Completeness of Basic Immunization	Amount	Percentage (%)
Incomplete	12	40.0
Complete	18	60.0
Total	30	100

Based on the table, it shows that the majority of babies get complete basic immunization as many as 18 respondents (60%), while there are 12 respondents (40%) babies who do not get complete basic immunization.

#### b. Discussion

- 1) The relationship between mother's education and the completeness of basic immunization in infants at the Manisa Health Center.

From the results of the univariate analysis it shows that table 6, a total of 18 respondents (60%) with low education received incomplete basic immunization





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for their babies as many as 11 respondents (36.7%), and 7 respondents (23.3%) had low knowledge but the baby gets complete basic immunization completeness. Meanwhile, out of 12 respondents (40%) who had higher education, there was 1 respondent (3.3%) who had incomplete basic immunization for his baby. And 11 respondents (36.7%) received complete basic immunization kits.

The results of statistical tests using the chi-square test based on the correction of the Fisher's Exact Test obtained a value of  $p = 0.007$ , which means that the  $p$  value is smaller than the value ( $\alpha$ ) 0.05 so that  $H_0$  is rejected and  $H_a$  is accepted, thus there is a significant relationship between mother's education with the completeness of basic immunization for infants at the Manisa Health Center.

From the results of the researchers' assumptions, it can be concluded that the higher a person's education, the better the level of knowledge so that it is more likely to provide complete immunization to infants, mothers with higher education will get more information from the world of education. And vice versa, the lower a person's education, the less likely his baby will get complete immunization. However, it is possible for mothers with low education to have their babies fully immunized. This is consistent with the results of a study which described a significant relationship between education and the completeness of basic immunization in infants.

This is in accordance with the theory according to Efendi (2009) which states that education is an attempt to develop personality and abilities inside and outside school and lasts a lifetime. Education affects the learning process, the higher a person's education, the easier it is for that person to receive information. Knowledge is very closely related to education where it is hoped that someone with higher education, then that person will also have a wider knowledge. However, it should be emphasized that a person with low education does not mean that he has low knowledge. Increased knowledge is not absolutely obtained in formal education, but can also be obtained in non-formal education





The results of this study are in accordance with the results of Paridawati's research (2012), where it was found that respondents who had a high education and performed basic immunization (82.5%), while those with low education (60.7%) performed basic immunization. . The results of statistical tests using the chi-square test obtained a value of  $p = 0.048$ , because the value of  $p < 0.05$  then  $H_0$  was rejected and  $H_a$  was accepted, which means there is a relationship between the education level of the mother and the act of giving basic immunization.

- 2) The relationship between mother's knowledge and the completeness of basic immunization in infants at the Manisa Health Center.

The results of the univariate analysis show that in table 7 a total of 10 respondents (33.3%) had less knowledge, there were 10 respondents (33.3%) whose babies had complete basic immunization completeness, and 0 respondents (0%) their babies received complete basic immunization completely. Meanwhile, out of 20 respondents (66.7%) who had good knowledge, but the basic immunization completeness of the baby was not complete, there were 2 respondents (6.7%) and who had good knowledge and their baby received complete basic immunization completeness as many as 18 respondents (60%).

The results of the statistical test using the chi-square test based on the Fisher's Exact Test correction obtained a value of  $p = 0.000$ , which means that the  $p$  value is smaller than the value ( $\alpha$ ) 0.05 so that  $H_0$  is rejected and  $H_a$  is accepted, thus there is a significant relationship between knowledge and Basic immunization completeness for babies at the Manisa Health Center.

From the results of the researchers' assumptions, it can be concluded that the research above illustrates a significant relationship between the level of knowledge of respondents and the completeness of basic immunization for infants at the Manisa Health Center, Sendan District, Palopo City. This is due to good knowledge about immunization, mothers will try to give immunizations because without immunization, babies will be susceptible to disease. The better a person's knowledge about immunization, the more likely the baby will get complete immunization, and vice versa the lower a person's knowledge about immunization,





the less likely his child will be immunized because he thinks that immunization does not need to only make him sick after being immunized.

The results of this study were supported by previous research conducted by Adinda with the title "Knowledge of Mothers about basic immunization for Diponegoro toddlers in 2011" with the results of the study showing mothers who had good knowledge were 62.5% and those who had less knowledge were 37.5%. The conclusion from this study is that most of them have good knowledge about basic immunization of toddlers.

The results of this study are also in line with research conducted by Siti Hindun (2009) which found that respondents who had good knowledge had complete basic immunization status of 94.2%, while respondents who had less knowledge were 27.4%. Then the  $p$ -value = 0.000 ( $p < 0.05$ ) was obtained indicating that there was a significant relationship between mother's knowledge and the completeness of basic immunization in infants.

This study agrees with Slameto (2009) who states that knowledge is the whole of thoughts, ideas, ideas, concepts and understanding that humans have about the world and all its contents including humans and life. Knowledge is human reasoning, explanation and understanding of everything, also includes practice or technical ability in solving various life problems that have not been proven systematically.

- 3) The relationship between the attitude of the mother and the completeness of basic immunization in infants at the Manisa Health Center.

The results of the univariate analysis show that in table 8 a total of 10 respondents (33.3%) had an unsupportive attitude, there were 9 respondents (30%) whose babies had complete basic immunizations incomplete, and 1 respondent (3.3%) their babies received completeness complete basic immunization. Meanwhile, of the 20 respondents (66.7%) who had a supportive attitude, but the basic immunization completeness of the baby was incomplete as many as 3 respondents (10%) and those who had a supportive attitude and their baby





received complete basic immunization completeness were 17 respondents (56.7%).

Based on the results of the chi-square statistical test, based on the Fisher's Exact Test correction, the p-value is 0.000. Then a test was carried out where  $p = 0.000 < 0.05$  so that it can be seen that  $H_0$  is rejected and  $H_a$  is accepted, which means there is a significant relationship between the attitude of the mother and the completeness of basic immunization in infants at the Manisa Health Center.

From the results of the study, the researchers assumed that the mother's attitude towards giving basic immunization to infants at the Manisa Health Center was included in the supportive category. This directly affects the actions of the mother in giving basic immunization to her baby, and some mothers are not supportive because the mother believes that giving basic immunization will cause her baby to have a fever and is also influenced by environmental factors such as the people around her. Based on the above opinion, it can be concluded that the mother's attitude is one of the factors that influence the provision of basic immunization to infants.

This is in accordance with the results of research conducted by Sisfiani (2013) which found that 12 respondents (36.4%) had a negative attitude, and the highest number of respondents had a positive attitude, namely 21 respondents (63.6%). The results of the statistical test obtained a value of  $p = 0.005$  because the value of  $p < 0.05$ , thus it can be concluded that there is a significant relationship between mother's attitude and basic immunization for toddlers.

This study agrees with Notoatmodjo (2003) who states that attitude is a reaction or response of someone who is still closed to a stimulus or object. Manifestations of attitude cannot be seen directly but can only be interpreted in advance from closed behavior. Attitude actually shows the connotation of the suitability of reactions to certain stimulations. In everyday life is an emotional reaction to social stimulation.





#### 4. Conclusion

Based on the results and discussion that has been described previously, the conclusions that can be drawn are:

- a) There is a relationship between mother's education and the completeness of basic immunization for infants at the Manisa Health Center.
- b) There is a relationship between mother's knowledge and the completeness of basic immunization for infants at the Manisa Health Center.
- c) There is a relationship between the attitude of the mother and the completeness of basic immunization for infants at the Manisa Health Center.

#### 5. Compliance with ethical standards

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##### Disclosure of conflict of interest

This research collaboration is a positive thing for all researchers so that conflicts, problems and others are absolutely no problem for all writers.

##### Statement of informed consent

Every action we take as authors is a mutual agreement or consent.

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