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**Original Article**

# *The Impact of Promotion and Basic Immunization Counseling Program on Mother's Knowledge and Attitude*

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***ABSTRACT***

*Immunization is an effort to actively create/increase the body's immunity to protect children from various diseases. However, Indonesian society's understanding of immunization still varies especially parental knowledge and behavior, which will be the main factor in immunization completeness for children, thereby reducing immunization coverage and immunity gaps. This research aims to determine the effect of promotion and counseling on the knowledge and attitudes of mothers with children over 2 years in the urban areas of Kaliombo and Manisrenggo, the working area of the Southern City Health Center. The research method is Quasi-Experimental with a one-group pre-post test approach. The sampling technique used Total Sampling with a sample size of 64 people. Data was collected in the form of knowledge and attitude questionnaires. Data were analyzed using descriptive statistical tests, Wilcoxon and multiple linear analyses. The research results related to knowledge show a p-value of 0.000 (p<0.05). In contrast, attitudes show a p-value of 0.000 (p<0.05), which means there is a significant increase in knowledge and attitudes after basic immunization counseling and education. Based on the linear regression test results, it shows that if knowledge increases by one score, then attitude also increases by 0.668. This research concludes that promotion and counseling impact knowledge and attitude.*

***Keywords:*** *Knowledge, Attitude, Promotion, Counseling, Basic Immunization*

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## INTRODUCTION

Exclusive breastfeeding is the best way to meet Immunization comes from the word immune, resistant. Children are immunized, meaning they are given immunity against a certain disease. Children are immune to one disease but not necessarily immune to other diseases [1,2]. Immunization is an effort to actively create/enhance a person's immunity to disease and the formation of immunity in individuals against infectious diseases, which is usually done by vaccination.[3] So that if one day exposed to the disease will not get sick or only experience mild illness[1].

Routine immunization of children in the United States continues to reduce the incidence of all vaccine-preventable diseases. In the vaccine era, the incidence of diphtheria, Hib, measles, polio, rubella, and tetanus has been reduced to <1 per 100,000 of all targeted diseases, with 24 million cases prevented

through vaccination in the United States by 2019. Routine immunization remains an effective public health intervention to avert disease; maintenance of high vaccination coverage rates is necessary for sustained impact[2].

Indonesian people's understanding of immunization is still different, so many infants and toddlers have not received immunization services. The reasons parents give include that the child is afraid of overheating, often gets sick, the family does not allow it, the immunization place is far away, does not know where the immunization is and is busy[1]. Parents often live in a wider social environment with characteristics that make vaccine reluctance or nonacceptance seem totally reasonable. This is true whether the parents are in the impoverished world of more socially excluded parents or the neoliberal world of more affluent parents[4]. Therefore, immunization services must be improved at various levels of service units[1].

This is by data from the Maternal and Child Health Profile in Indonesia in 2020. In 2020, 57 out of 100 children aged 12-23 months have received complete basic immunization. This percentage increased by 1.84 percent from the previous year. Based on the region type, the rate of children who received full basic immunization in urban areas is higher than in rural areas. This proves that there are still many children who have not been immunized[5]. The immunization performance achievement of East Java Province in 2021 is 84.90%, a slight decrease compared to the achievement in 2020, whose immunization coverage was 99.34%[6].

Numerous vaccinations frequently cause injection site discomfort, redness, swelling, and a few systemic symptoms like fever, malaise, and headache. These adverse effects manifest during the first two days after vaccination, indicating the immunological and inflammatory reactions that successfully establish vaccine-induced protection. Even though these side effects are self-limiting and generally mild—and insignificant in light of the high morbidity and mortality of the diseases that the vaccines are intended to prevent—parents may find them extremely concerning, and medical professionals who are advising families on vaccinations frequently downplay their significance[7]. This shows that the factors determining whether a mother does not fulfill full vaccination status include her knowledge, father's education, location of delivery, time to reach a health facility, participation in pregnant women's conferences, and parental discussions[8].

The coverage of complete basic immunization in Kediri was 90.12%, with a dropout (DO) of 1.75%. With full immunization coverage in 9 Puskesmas in Kediri, including Mrican 95.09%, Campur Rejo 113.74%, Sukorame 90.42%, North City Region 73.88%, Balowerti 93.24%, Pesantren I 93.18%, Pesantren II 73.24% and Ngletih 85.50%[9].

This can be used as a reference that the complete basic immunization coverage in the working area of South City Health Center (KOWILSEL) reports the assessment of BCG immunization in babies with a target of 95% and 84.74%, DPT/HB 1 immunization in babies with a target of 95%. And achievement of 87.47%, DPT/HB 3 immunization in babies with a target of 90% and achievement of 87.02%[10]. The decrease in immunization coverage can lead to immunity gaps and vaccine-preventable disease outbreaks[11].

The purpose of immunization in children is to protect children from various diseases[5,11]. The complete basic immunizations covered include 1 (one) Bacillus Calmete Guerin (BCG) immunization, 3 (three) Tetanus Diphtheria Pertussis (DPT) immunizations, 3 (three) polio immunizations, 3 (three) Hepatitis B immunizations, and 1 (one) complete basic immunization with measles[1,3]. Ideally, children should have received complete basic immunization by 12 months because according to Minister of Health Regulation No. 12/2017 on the implementation of Immunization, basic immunization is given to infants before the age of 1 (one) year. Conversely, according to Law No. 36/2009 on Health, article 130 states that the government must provide complete immunization to every infant and child[5]. Vaccination effectively reduces infectious disease burden in children, preventing two to three million deaths annually, but basic coverage remains below target[4,9,12].

Immunization programs are crucial for public health, but parents' education about routine vaccination benefits is a major concern, with reports focusing on education levels[13]. Lack of knowledge about child vaccination schedules and vaccine-preventable diseases among mothers and caregivers may increase the risk of children not being fully immunized,

especially those who have not attended pregnant women's conferences[8,14]. The knowledge and attitude of a child's parents significantly impact their child's basic immunization, with most having sufficient knowledge and good behavior towards diphtheria and diphtheria ORI[3,15]. Some mothers argue that vaccines aren't important due to their parents' lack of vaccination, highlighting the need for proper health education to prevent misbeliefs and affect mothers' attitudes [3,16].

Based on the data above, the authors want to know about the impact of promotion and counseling on the knowledge and attitude of mothers who had children aged more than 2 years in the hope later counseling and counseling on basic immunization will motivate the mother to immunize the next child completely in Kaliombo and Manisrenggo urban areas working area of Public Health Center City of Southern Territory. It is hoped that the contribution of this research can be used as a source of information for the health service to improve the implementation of the basic immunization program and create health promotion media in the form of more intensive counseling for mothers who do not do basic immunization.

## METHOD

This research is quasi-experimental, one group pre-test post-design. The research population was all mothers with children <2 years old who were admitted to Posyandu in Kaliombo and Manisrenggo Villages within the scope of the Southern Region City Health Center (KOWILSEL) of Kediri City. The total sampling in this study was 64 people. The total sampling was all mothers who had children <2 years old[4,8,15,17–24]. As well as those who have children who have received complete basic immunization, which is given including one dose of Bacillus Calumet Guerin (BCG) vaccination against tuberculosis at birth or at first clinical contact, three doses of pentavalent vaccine (DPT). -HepB -Hib), three doses of polio vaccine, and three doses of pneumococcal conjugate vaccine (PCV) at 6, 10, and 14 weeks of age. In addition, two doses of rotavirus vaccine at 6 and 10 weeks of age and one dose of measles vaccine at 9 months or immediately before the first year of birth are recorded on the vaccination card given to parents or caregivers[1,3,8,14,21,22].

Respondents provided informed consent and notification of being volunteered for use for research purposes[10,15]. Data was collected directly from respondents through questionnaires regarding mothers' knowledge and attitudes regarding basic immunization. The group intervened by researchers was given a questionnaire before and after promotion and counseling[8,15–17,19–21,24–26] as many as 64 people. Data collection was carried out using a questionnaire that had been prepared and filled in directly by the subject with supervision from the researcher[9]. Research data regarding the mother's knowledge and attitudes were obtained from primary data[8,9]. Statistical analysis used the normality test with Kolmogorov Smirnov, a comparison test with Wilcoxon, while multivariate analysis was carried out using the Multiple Linear Regression Test[8,20–22,26].

## RESULTS

Research data about the level of knowledge and attitudes of mothers was obtained from the primary data taken directly from the respondents through a questionnaire of mothers' knowledge and attitudes associated with basic immunization. Based on table 1, it shows a sample of 64 with the ages listed.

Based on Table 2, the majority of mothers have a final high school education as many as 32 people (50%), junior high education as many as 21 people (32.8%), education bachelor as many as 7 people (10.9%) and elementary education as many as 4 people (6, 3%).

**Table 1. Description of Mother Age**

| Age of mothers | Amount |
|---|---|
| 20 | 1 |
| 21 | 1 |
| 22 | 1 |
| 24 | 5 |
| 25 | 1 |
| 26 | 4 |
| 27 | 2 |
| 28 | 7 |
| 29 | 5 |
| 30 | 9 |
| 31 | 2 |
| 32 | 6 |
| 33 | 2 |
| 34 | 3 |

| | |
|---|---|
| 35 | 6 |
| 36 | 2 |
| 37 | 3 |
| 38 | 1 |
| 39 | 1 |
| 41 | 1 |
| 43 | 1 |
| amount | 64 |

**Table 2. Maternal Education**

| | Amount | % |
|---|---|---|
| ES | 4 | 6,3 |
| JHS | 21 | 32,8 |
| SHS | 32 | 50 |
| Bachelor | 7 | 10,9 |
| Total | 64 | 100 |

In this study, the number of samples used is 64 samples. Therefore, the researchers used the Kolmogorov-smirnov normality test because of the sample size> 50. Based on Table 3, the results of the normality test obtained a significance value of knowledge 0.036 (P <0.05) and attitude 0.000 (P <0.05). Data is said to be normal if p> 0,05. The results of this study obtained p <0.05, followed by the Wilcoxon test.

**Table 3. Normality Test Results**

| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| difference_Knowledge | ,115 | 64 | ,036 | ,940 | 64 | ,004 |
| difference_Attitude | ,207 | 64 | ,000 | ,929 | 64 | ,001 |

This research aimed to know the difference in knowledge and attitude before and after counseling and education about basic immunization.

Based on Table 4, Wilcoxon test results obtained improved Knowledge from before counseling and basic immunization education and after counseling and basic immunization education, 56 samples got improvement, and 8 pieces did not increase or fix with p value 0,000 (p <0,05), which means a significant increase in knowledge after counseling and basic immunization education.

**Table 4. Wilcoxon Test Results**

| | N | Decrease | Equal | Increase | p |
|---|---|---|---|---|---|
| Knowledge Post – Knowledge Pre | 64 | - | 8 | 56 | 0,000 |
| Attitude Post – Attitude Pre | 64 | - | - | 64 | 0,000 |

Improved attitudes before counseling and basic immunization education and after counseling and basic immunization education occurred in 64 samples with p p-value of 0.000 (p <0.05), which means a significant increase in attitude after counseling and basic immunization education.

**Table 5.** Result of Linear Regression Test

| Model | Unstandardized Coefficient | Standardized Coefficient | Sig. |
|---|---|---|---|
| | B | Beta | |
| (Constant) | 26,081 | | ,000 |
| Knowledge | ,668 | ,781 | ,000 |
| Age | ,016 | ,030 | ,747 |
| Last maternity education | -,582 | -,171 | ,057 |
| Maternity occupation farmer | -,718 | ,5059 | ,598 |
| Maternity occupation teacher | ,553 | ,037 | ,707 |
| Maternity occupation entrepreneur | ,485 | ,078 | ,363 |
| Maternity occupation house Assistant | -1,200 | -,081 | ,313 |
| Father's occupation Teacher | 2,017 | ,136 | ,212 |
| Father's occupation entrepreneur | ,074 | ,009 | ,943 |
| Amount of child | -,524 | -,153 | ,123 |

From the regression analysis result of Table 5, it was known that the variable having a significance value <0,05 is pre-knowledge only, while other variables had a significance value> 0,05. This shows that the variable that influences attitude is knowledge only. Overall, the contribution seen from the adjusted R square value was 61.5%, meaning the role of knowledge on attitude is 61,5%. In comparison, the rest, 39,5%, was influenced by other factors not included in the research. From the linear

regression test result, when knowledge increases one score, his attitude will also increase by 0.668.

## DISCUSSION

This research was an experimental Quasi research with a group pre-test and post-test design approach that was conducted in one group without a comparison group, which aims to know the impact of counselling programs and basic immunization education on mothers' knowledge and attitudes in the working area of Public Health Center of the southern city.

The age distribution of this study consisted of 64 mothers aged 20 – 43 years. Meanwhile, other research shows the dominance of women in early adulthood (26-36 years). The younger age level has a better immunization status compared to children of mothers over 25; the higher the immunization status shows that the mother's age affects the childcare experience and preventive measures to protect the child from disease[3]. Of all the sociodemographic and background variables, only older maternal age was associated with better knowledge of immunization names/ preventable diseases ($p = 0.03$)[16]. Maternal age 30 - 39 was more prevalent compared to other ages[11]. The most common age was between 26-34 years. 15 53% were found to be between 26 and 35 years old in the distribution[21]. Most participants (39.2%) were from the 25-29 age group[22] . A total of 200 postnatal Malaysian mothers were enlisted; the mean age of the mothers in the study sample was 27.29 ± 2.45 years[27]. While research points to the fact that younger age is associated with higher compliance with vaccination ($p<0.001$), compliance appears to decrease as parents age[28]. The age distribution shows that the average age of mothers in our study was 30 years. This is by the research of Hu, Y., et all. In 2019 many mothers are under 30 years of age [29,30]. Based on the research of Cataldi, J. R. et all. In 2019, mostly in part-time jobs and unemployment, [29] other studies also have an average maternal age of 34 [29]. Other studies also show that immunization frequency is higher in mothers under 30 years, especially in mothers aged 25-30 years, compared to mothers over 30 years[22]. Even in other studies, many mothers were under 30[30]. Another study found children born to older mothers (>35 years old) were 2.4 times more likely to have incomplete immunization (AOR = 2.4, 95% CI: 1.09, 5.28) compared to younger mothers (<26 years old)[20].

The maternal education in this study had a high school education of as many as 32 people (50%). This is the same as Ali AHM's research in 2020, in which high school education is dominant compared to others. [16] Even in the research of Touray et al. in 2021, 87.2% of high school education (aOR = 0.128; 95% CI = 0.029, 0.561) [21]. There are still many mothers with a secondary education level, as many as 402 people[23]. Based on the level of knowledge, the number of high school students is 30 more than at other levels of education. It is assumed that other factors besides maternal education also influence the child's basic immunization status[3,16]. In contrast to other studies, the mother's education had the most undergraduate degrees, as many as 126 people. Mothers with a high level of education (OR 12.5, CI 95%). 3.71-42.1, $p < 0.001$) were likelier to have high knowledge about immunization than mothers with moderate education levels (high school graduates). Mothers with higher education levels were associated with higher child immunization rates (61%) than those with high school education (33%, $p < 0.05$) or primary-middle school education (10%, $p < 0.05$)[11]. In this study, 7 people (10.9%) had university education. Education is important, especially for immunization coverage. Due to the lack of parental education, making mothers unaware of immunization and its benefits, there is also a growing phenomenon that parents believe immunization is unsafe at certain levels[13]. Women are more likely to regularly bring their children for immunization, although more highly educated mothers are more likely to be immunized than men. The results make it possible to describe a profile of "immunization-compliant parents" (with an academic degree, young, urban, eating any food, using conservative medicine). Belief is a major factor influencing immunization, but external factors such as community voice, social trends, and opinions of religious leaders may play a role in immunization adherence, in addition to personal beliefs, individual habits, and self-care. While in our study, junior high school education was 21 people (32.8%), and primary education was 4 people (6.3%). This can be shown in other studies that parents who bring

their children to developmental follow-up tend to be more educated (p = 0.002) and do not use alternative medicine (p < 0.001). Parents who did not trust doctors tended to be less educated (p = 0.001) and used alternative medicine (p = 0.027)[28].

The knowledge measurement results showed a significant effect of 0.036 (P<0.05). Comparable to research by Balbir Singh et all. In 2019, which showed the relationship between age (p = 0.031), education (p = 0.021), occupation (p = 0.013), and knowledge scores on immunization were found to be statistically significant. However, ethnicity (p = 0.127), work (p = 0.197), and mode of delivery (p = 0.750) on maternal knowledge about immunization were not significant[27]. Our study used knowledge to measure the impact of promotion and basic immunization. Maternal/caregiver knowledge factor (AOR=4.32, 95% CI: 2.78-6.70) determines defaulting from full immunization[8]. Caregivers and stakeholders believe knowledge and awareness boost vaccine acceptance, as vaccination benefits child health and development. Local health staff highlight providers' lack of knowledge can increase hesitancy and lower confidence[31]. Only older maternal age was associated with better knowledge of the names of vaccines/preventable diseases (p = 0.03). The knowledge score about vaccines/preventable diseases was poor, with p 0.21[16]. Knowledge on immunization schedules (AOR=1.92 95% CI, 1.03–3.60), PNC (AOR=3.19; 95% CI, 1.57–6.47), discussion on side effects and contraindications of vaccines (AOR=2.75; 95% CI, 1.4–5.3) were notably associated with full vaccination among urban children[26]. This is different from the research of Nabila Arfimita et al. 2020 regarding knowledge. Still, there is no significant relationship between parents' knowledge about diphtheria disease and (Outbreak Response Immunization) diphtheria ORI on diphtheria ORI coverage (P=0.075)[15]. Parents with a master's degree and having a monthly income between Rs 20,000 and 30,000 have much better knowledge than others. However, no significant differences (p ≤0.05) were found between gender, age, occupation, city and importance of immunization. The research results by Hussain, A. et all. In 2021 it showed that most respondents knew this but did not know that the immunization schedule was listed on the immunization card from the hospital or immunization center. Parents' knowledge regarding immunization of children under two years old is still lacking, but they positively perceive children's immunization.[24] Only 238 (39.5%) participants had good knowledge about immunization, and two-thirds had poor knowledge about complete immunization[25].

The result of the attitude significance value is 0.000 (p<0.05). This is different from Hanka VS and Sujono's research, E in 2021, there was no relationship between parental behavior (p=0.868), parental attitude (p=0.647), and provision of complete basic immunization. On the other hand, parental knowledge influences whether children will receive full basic immunization or not (p=0.000)[3]. Regarding the attitude of mothers/caregivers towards child immunization, 53 (36.6%) among cases and 23 (42.1%) among controls had an unfavorable attitude towards child immunization[8]. In other studies, many (99.2%) mothers had a positive attitude, and 98.4% reported that they would recommend immunization to others. All of them (100%) stated they were fully responsible for their children's immunization, 98.4% thought that immunization was important, and 99.2% thought it was safe[16]. Comparison of attitude scores between the 2 groups revealed a significant difference in an item regarding perceived benefits: the score was higher in the intervention group (3.12 ± 1.25) than in the control group (2.7 ± 1.36) (P = 0.018) for the item, ‘‘If my baby receives his/her vaccines, it will help protect my friends and family from getting vaccine-preventable diseases.” [17] our research showed that an increase in attitudes before basic immunization education and counseling and after basic immunization counseling and education occurred in 64 samples with a p-value of 0.000 (p<0.05), which means there was a significant increase in attitudes after basic immunization counseling and education. This is similar to research by Nabila Arfimita et al. 2020. Good parental attitudes towards diphtheria and ORI significantly correlated with complete ORI coverage (P=0.004)[15]. Despite generally positive attitudes, some rumors and misunderstandings persist among caregivers. Although many participating caregivers stated that they did not believe the words, they had

heard them and knew other caregivers in their communities who also accepted them. Caregivers reported feeling hesitant about repeated injections: ". . .since the introduction of the third shot [attenuated Polio vaccine (IPV)], mothers have been worried about having too many shots and not bringing their children on time. . .". [18]. In addition, mothers whose immunizations were incomplete had lower knowledge about the benefits of immunization (AOR = 2.02, 95% CI: 1.20, 3.39). Negative attitude towards immunization (AOR = 4.9, 95% CI: 2.82, 8.49) [20].

This research aims to determine the differences in knowledge and attitudes before and after education and education about basic immunization. Based on Table 4, the results of the Wilcoxon Test show that there was an increase in knowledge from before basic immunization counseling and education and after basic immunization counseling and education, 56 samples experienced an increase, and 8 models did not experience an increase or remained with a p-value of 0.000 ($p<0.05$) which means an increase significant knowledge after basic immunization counseling and education. This is by research by Saitoh A et al. in 2020, which showed scores for maternal knowledge questionnaire items were significantly higher in the intervention group. Knowledge is believed to be a determining factor in the success of an immunization program[17]. Immunization rates were higher in children whose mothers knew about the immunization program ($p=0.000$). Knowledge obtained from husbands has a higher impact on immunization rates than community mobilization ($p=0.000$)[22]. This shows that a mother's knowledge of a particular health service that is provided, including immunization, creates a situation conducive to using that service. In addition, a possible explanation is that if primary caregivers know about immunization benefits, schedules, and side reactions, they can immunize their children based on the recommended schedule without being negligent and afraid of side reactions due to immunization[20]. In fact, some respondents in the study already knew basic immunization but still had misunderstandings about the benefits of immunization itself. This is in Elbert et al.'s 2023 research; analysis of immunization knowledge shows that the majority of participants (87.8%) understand that if an immunization dose is missed, they will be affected by having to visit a health facility and seek advice, 74% know that immunization does not cause autism, and 68.9% of participants knew that immunization does not cause impotence. There are still misconceptions among mothers that vaccines contain nutritional supplements, are growth factors, contribute to children's brain development, and can prevent non-communicable diseases. However, misunderstanding regarding vaccine safety remains low, recorded at less than 10% of participants. Most mothers already know that immunization does not cause autism or impotence[11]. In contrast to research by Nakatudde, , et al. in 2019, the primary caregiver's knowledge about the timing of immunization for premature babies is inaccurate. Most do not know when premature babies should receive immunization, and some choose not to. The child's caretaker thought that he had already been given immunizations when he was at the hospital, so there was no need for immunizations anymore[32]. Better knowledge about vaccine schedules and benefits will motivate children to get immunized. Poor knowledge of the immunization schedule increases the risk of children not receiving immunizations (AOR: 4, 95% CI 2.2 to 7.1)[14].

From the regression analysis results in Table 5, it is known that variables with a significance value of $<0.05$ are only pre-knowledge variables. In contrast, other variables have a significance value of $>0.05$. This shows that the only variable that influences attitudes is knowledge. Overall, the contribution seen from the adjusted R square value is 61.5%, meaning that the role of knowledge on attitudes is 61.5%. Other research showed mother's knowledge status positively affects the completion of child immunization. Thus, children whose mothers/caregivers have poor immunization knowledge are 2.02 times more likely to have children who do not receive complete immunization compared to mothers who have good knowledge[20]. Knowledge increased by one score; this research shows that attitude also increased by 0.668, the results of this research show that it provides insight into mothers' knowledge and attitudes towards child immunization as findings that can be used as a basis. Other research shows that the mother's or closest caregiver's attitude towards

immunization was important in determining child immunization. Mothers or caregivers with a negative attitude towards immunization are 4.9 times more likely to have children who do not receive complete immunization than mothers or direct caregivers who have a positive attitude[20]. Maternal factors, including education, occupation, and ethnicity, account for 49.7% of the explained inequality, while children's birth order and immigration status also contribute[29]. Negative attitudes are usually associated with low knowledge.[8] The likelihood of incomplete child immunization is 6.1 times higher among caregivers with unfavorable attitudes towards the benefits of vaccines than caregivers who do not receive immunizations. (AOR: 6.1, 95% CI: (3.4, 11.1). The chance of incomplete child immunization is higher in caregivers who have an unfavorable attitude towards vaccines than caregivers who have an unfavorable attitude towards vaccines. Negative attitudes towards immunization (AOR = 4.9, 95% CI: 2.82, 8.49)[20]. The majority of caregivers of children who received incomplete immunization (65.4%) had poor knowledge of the immunization schedule and a negative attitude towards the benefits of vaccines (63.8%)[14]. Other research also shows that bad attitudes can be due to the influence of religion: religion appears as an influence on parents' attitudes towards immunization. It becomes an obstacle in carrying out immunization. One mother described the influence of religion as follows: I took my child for immunization, and he felt very sick." (FGD2- "...There are reasons, for example, if I take my child for immunizations to the clinic, I must have a clinic card, and even if they explain that the card is lost, maybe because it was flooded or burned, they just insist that you are lazy." (FGD7-P8; Single mother basic education). "… We have heard the Catholic Church say that immunization (given to women) is bad because it will prevent them from giving birth[33].

## CONCLUSIONS

Promotion and counseling impact knowledge and attitudes, as seen from the significant increase in knowledge and attitudes before and after socialization and education about basic immunization.

The Kediri City Health Service is advised to improve basic immunization programs and increase coordination with Community Health Center officers. The KOWILSEL Community Health Center is also recommended to provide ongoing counseling and create health promotion media for mothers who do not carry out basic immunizations.

Further research is needed to explore additional factors that may influence mothers' attitudes toward basic immunization, which has not been thoroughly studied.

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