

THE EFFECT OF FAMILY SUPPORT AND IMMUNIZATION SERVICES ACCESS ON MOTHERS ATTITUDES IN PROVIDING BASIC IMMUNIZATION

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ABSTRACT

Background: Morbidity and mortality rates of infant-toddler are still in high number. It is caused by the infectious disease that can be prevented by immunization. More than 1.4 million children each year die because of diseases that can be prevented by immunization (Kemenkes RI, 2015). It was caused by the attitudes of the mothers toward basic immunization in the baby. Based on its, the aim of this study was to analyse the effect of family support and immunization services access to mothers attitudes in providing basic immunization in children.

Materials and Methods: This study was observational analytic with a cross-sectional design. Sampling was simple random sampling and obtained 163 mothers who had children aged between 12-24 months. This study did a home visit to collect primary data needed. This study used logistic regression with $\alpha = 0.05$.

Result: Mothers attitudes in providing basic immunization was significantly influenced by family support ($p= 0.0001$) and health care access ($p= 0.010$). Mothers who did not have family support were at risk for the mothers which hadn't attitude to support giving basic immunization 4.644 times greater than mothers who had family support. Furthermore, a mothers who had difficulty access to immunization services were at risk for the mothers which hadn't attitude to support giving basic immunization 4.836 times greater than mothers who had easy access to immunization services.

Conclusion: Mothers attitudes in providing basic immunization were significantly influenced by family support and immunization services access. Family support and immunization services access will develop supportive attitudes toward basic immunization for children.

Keywords: Immunization, Children, Attitude, Family Support, Immunization Services

1.0 Introduction

The infectious disease still occurs in developing countries, including Indonesia. This is the main cause of morbidity and mortality in millions of children. In Indonesia, more than 1.4 million children each year die because of diseases that can be prevented by immunization (Kemenkes RI, 2015). One of the effective efforts to reduce it is by giving immunization. Immunization can prevent approximately 2 to 3 million child deaths annually from diphtheria, measles, pertussis, pneumonia, polio, rotavirus diarrhoea, rubella and tetanus (WHO, 2014). Moreover, immunization is the most successful and cost-effective public health intervention, especially for developing countries (Jayantiet *al.*, 2017).

Universal Child Immunization (UCI) area is a term for a village which capable to cover more than 80% babies (0-11 months) to have complete basic immunization. Over the past 4 years, Pamekasan district had UCI areas less than target 80% (Dinas Kesehatan Kabupaten Pamekasan, 2017). There were a lot of babies who did not have complete immunization. It was caused by mother's attitude that did not want to give complete basic immunization. Larangan Community Health Centre is one of the health centres that have the lowest basic immunization coverage (66.41%) and the lowest UCI areas (42.85%) in Pamekasan district (Dinas Kesehatan Kabupaten Pamekasan, 2017).

Last year, the government conducted Measles immunization campaign and MR (Measles-Rubella) immunization campaign in 2017. From 38 cities in Indonesia, there were 5 cities that were under the target of Measles and MR campaign. The five cities were in East Java Province. According to the Unicef report, the five cities are Lumajang district (85.15%), Batu city (88.97%), Sumenep district (96.14%), and Bangkalan district (96.79%) (Birohumas Jatim, 2017).

The Head of Pamekasan District Health Office said that measles immunization campaign and MR immunization campaign were still under the target because there were a lot of parents who refuse to immunize their children. It was because of lack of knowledge. There was a lot of hoax news about vaccines, especially Measles, and MR vaccines, and many parents believed it. They said that vaccines contained haram substances. That hoax news successfully made many parents did not immunize their children. Although the local government had given explanations about that hoax news, the parents still believe that hoax news. Even the District Health Office and religious leader had done socialization about the right news, but the results were still not optimal.

Immunization is a golden way to reduce morbidity and mortality rates of infant-child which are caused by infectious disease. Postpone or refuse to immunize will be increasing the risk of infection in children. Babies and children who get complete basic immunization will be protected from infectious diseases and prevent the occurrence of disease transmission. Moreover, immunization will boost the immunity of babies and children, so their body can fight infectious disease that can be prevented by immunization and also protect people around them from the epidemic of infectious disease by enhancing community immunity (Depkes RI, 2009).

Immunization programme will be successful if the coverage of immunization is in high number and evenly distributed throughout the areas. The high coverage and even distribution

throughout the areas can be realized if the target of complete basic immunization and UCI areas are fulfilled. The high number of complete basic immunization and UCI areas can increase community immunity against infectious disease that can be prevented by immunization (Sulistiyani, 2017).

This phenomenon was caused by the negative attitudes of the mothers toward basic immunization in the baby. The negative attitude was a rejection of giving basic immunization for her baby. Mothers reject immunization or did not want to immunize her baby because of her belief that immunization did not give benefit to the baby, then mothers also afraid the side effects of immunization. Besides, mothers also believed that immunization could make a child disabled. All these assumptions might affect mothers attitude toward basic immunization.

Attitude is an evaluation or reaction of feelings. Attitude toward an object is a sense of support or non-support feelings on the object. Positive attitude mothers will be a predisposing factor for mothers to immunize her baby (Garungan, 2016). The realization of attitude to be real action also need enabling factors, such as facilities and support from others especially from family (Anton, 2014).

Family support is able to encourage willingness and ability for mothers as members of the community to use health-care facilities. All mothers activities, such as immunizing babies, are the result of family support, both from husband and other family members. Family support is also a reinforcing factor for people in making decisions more precisely (Sakau, 2018).

Health care access, especially for immunization services, also affects the completeness of immunization. Access to immunization services with diverse geographic conditions is a big challenge in providing immunization services in Indonesia. Without easily and cheap access, low-income parents will have trouble getting immunization services. So, unattainable immunization coverage targets are influenced by immunization services access (Naingolan, 2016).

2.0 Materials and Methods

The population of this study was all of the mothers who had a baby aged between 12-24 months and lived in Larangan Community Health Centre working area, Pamekasan district in 2017. Sampling was simple random sampling using Stanley Lemeshow formula and obtained 163 mothers had a baby aged between 12-24 months.

The criteria inclusions of this study were mothers who had babies aged between 12-24 months; did not have physics, mental, and cognitive disability; and the baby did not have a disease that could not be immunized, such as malignancy and HIV/AIDS. All respondents were selected as sample of this study and lived in Larangan Community Health Centre working area, Pamekasan district in 2017.

The way of sampling this study started from make sampling frame all of the mothers who had babies aged between 12-24 months, then gave a number on a small paper in order of the list

and rolled paper to be used as a lottery. The falling paper would be the sample and the mothers was a respondent of this study.

This study did the home visit to collect primary data using a questionnaire which has been tested for validity and reliability and interview. Researchers also observed the card book to healthy to find out the completeness status of basic immunizations of the baby. This study used logistic regression with $\alpha = 0.05$.

3.0 Result

3.1 The effect of family support to mothers attitude in providing basic immunization in Baby

Table 3.1 Family Support To Mothers Attitude in Providing Basic Immunization

Variable	Attitude						β	p value	Exp (β)	
	Supported		None Supported		Total					
	n	%	n	%	n	%				
Family support										
Supported	98	79.9	25	20.3	123	100	1.536	0.0001	4.644	Significant
None Supported	17	42.5	23	57.5	40	100				

Table 3.1 showed that the mothers which had attitude to support giving basic immunization to the children had family support as much as (79.9%), meanwhile the mothers which hadn't attitude to support giving basic immunization to the children hadn't family support as much as (57.5%).

The statistical analysis result showed that mothers attitude in providing basic immunization was significantly influenced by family support ($p < 0.05$). Exp (β) value is a prevalence ratio. Prevalence Ratio = 4.644 it means that mothers who did not have family support were at risk for the mothers which hadn't attitude to support giving basic immunization 4.644 times greater than mothers who had family support.

3.2 The effect of immunization services access to mothers attitude in providing basic immunization in baby

Table 3.2 Immunization Services Access To Mothers Attitude in Providing Basic Immunization

Variable	Attitude						β	p value	Exp (β)	
	Supported		None Supported		Total					
	n	%	n	%	n	%				
Health care access										
Easy	109	73.2	40	26.8	149	100	1.576	0.010	4.836	Significant
Difficult	6	42.9	8	57.1	14	100				

Table 3.2 showed that the mothers which had attitude to support giving basic immunization to the children had easiness health care access as much as (73.2%), meanwhile the mothers which hadn't attitude to support giving basic immunization to the children had difficulty health care access as much as (57.1%).

The statistical analysis result showed that mothers attitude in providing basic immunization was significantly influenced by immunization services access with sig. value 0.010 ($p < 0.05$). Exp (β) value is a prevalence ratio. Prevalence Ration = 4.836 it means that mothers who had difficulty access to immunization services were at risk for the mothers which hadn't attitude to support giving basic immunization 4.836 times greater than mothers who had easy access to immunization services.

4.0 Discussion

4.1 *The effect of family support to mothers attitude in providing basic immunization in baby*

The result showed that mothers attitude in providing basic immunization was significantly influenced by family support. Notoatmodjo (2007) said that attitude is a readiness or willingness to act and not because of a specific motive. Attitude is not an action or an activity, but it is a one of the predisposing factors to do an action. The realization of attitude to be real action also needs enabling factors, such as facility and support from others, especially from family.

Family support could be an approval to providing complete basic immunization in their baby. One of the factors which affect mothers in providing basic immunization is family support, especially from the husband. This study showed that husband support was a main support for the mothers in providing basic immunization in her baby. It could be a permit for the mothers to immunize their babies. A strong family support could help mothers easily making decisions about the attitude in providing basic immunization in the baby.

Family support was an integral part of social support. Husband's support managed to strengthen the participation of immunization, such as remind his baby immunization schedule, informs his wife that fever after immunization is normal and not contraindicated for the next immunizations (Friedman and Jones, 2003).

Adherence to immunize babies were found more in families whose husbands were very close to his wife and also support and motivate each other (Sakau, 2018). Setyowati *et al.* (2013) said that most husbands had an active role in their families, like as a decision maker, protection from danger or risk, and also give support and motivation to his wife. But, there were respondents whose husbands had a passive role in their families, such as did not participate in caring for their children when they were sick.

Wong (2008) said that parents were the main key person who was the guardian and protecting their children. Their growth and development depend on their parents. A child could develop and grow healthy depending on parents. So, parents have to always care for, supervise, and

pay more attention to their children, especially in the early life of a child named in the baby. At that time, it was necessary to prevent health problems in babies that might arise, so the involvement of parents was needed as the first person who was always together and could care for them. It also related to completeness basic immunization. Isnayani (2016) said that there was a correlation between the role of family and the completeness of basic immunization.

The individual tends to have a similar attitude to the figured person who is important for their life (Anton, 2014). The individual with high family support would be an optimistic person who could handle his/her health and life problems and more able to meet psychological needs (Setiadi, 2008). Ritonga *et al.* (2015) also said that the family had an important role during mothers immunize her baby, so that they could achieve optimal welfare. It could be concluded that mothers who had high family support toward basic immunization were expected to be able to develop a support attitude of the mothers, and then were realized be active in providing basic immunization in the baby.

4.2 The effect of immunization services access to mothers attitude in providing basic immunization in baby

Access to immunization services was assessed from travel time, transportation costs, and also type of transportation from house to the nearest immunization services, both community-based health services and private based health services. The community-based health services were Integrated Health Centre (*Pos Pelayanan Terpadu / Posyandu*), Village Health Centre (*Pos Kesehatan Desa / Poskesdes*) and Village Delivery Centre (*Pondok Bersalin Desa / Polindes*). The private based health services were Hospital, Community Health Centre, Clinics, Doctors Practices, and Midwife Practices (Nainggolan *et al.*, 2016).

Access to basic immunization is a basic immunization service that must be attainable by the community. One of them is not obstructed by geographical constraint. How to measure the geographical constraint is to calculate distance, type of transportation, or other factors that could prevent a person from obtaining health services (Pohan, 2004).

Without easily and cheap access, low-income parents would have trouble getting immunization services. Distance affected the utilization of health services, especially for immunization services. Most mothers would not immunize their babies if the location of immunization service was far from their home (Nainggolan *et al.*, 2016). But if it was easily accessible by transportation, the immunization services would be widely used by the community (Makmur, 2010).

This result showed that mothers attitude in providing basic immunization was significantly influenced by immunization services access. A mothers who had easy access to immunization services would have a support attitude toward complete basic immunization. Otherwise, a mothers who had difficulty access to immunization services would have a not support attitude toward complete basic immunization. It would be a big problem for implementation of basic complete immunization's programme.

The realization of attitude to be real action also needs enabling factors, such as facilities (Anton, 2014). These facilities included access to immunization services. If access to

immunization services was inadequate, it would make the immunization service inadequate too. It could be decreasing the interest of mothers to immunize their baby.

Society would use health facilities if they were available. Notoatmodjo (2005) said that the community would not use health care facilities unless they were able to use it. Health service is one of the facilities that have to be used by all level of income of people fairly and evenly. All people have to be used health services well. Therefore, it was necessary to expand the health services, especially for immunization services.

So those, the entire population both in rural areas and poor people were more able to be served because they were closer to their homes. Travel time to the health facility was an enabling factor to use health facilities, so it was necessary to expand the hospital services and community health services.

This result of this study showed that the distance of immunization services, like *posyandu* and *poskesdes*, was closer to their house. It was caused by each village had *posyandu* and *poskesdes*. It was easy for the mothers to bring their baby to immunize. Jayanti *et al.* (2017) also said that the distance of immunization services had an effect on the implementation of complete basic immunization. Access to immunization services affected the completeness of basic immunization in baby (Hafid, 2016).

5.0 Conclusion and recommendation

Mother's attitudes in providing basic immunization were significantly influenced by family support and immunization services access. The mothers who had family support and easy accesses to immunization services would had attitude to support giving basic immunization. Otherwise, the mothers who did hadn't family support and difficulty access to immunization services would hadn't attitude to support giving basic immunization.

Counselling will require to be delivered to the mothers and her family, especially to her husband, about the importance of basic immunization in the baby. Immunization will be increasing their immunity and also preventing all diseases that can be prevented by immunization. Furthermore, improving access to immunization services will be increasing the coverage of complete basic immunization in each village.

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Declaration

Authors declare that all works are original and this manuscript has not been published in any other journals. There was no financial support of any organization for this work.

Author's contribution

Author 1: Information gathering and preparation

Author 2: Data analysis and review of the manuscript

Author 3: Data analysis and review of the manuscript

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