



Analysis of Factors Related to the Immunization Achievement in Infants at Villages

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Abstract

Immunization is considered one of the most effective interventions in health for reducing morbidity and mortality in infants and children globally. Health Center Back's achievement immunization base is still below target. Results of previous research related factors with the completeness of immunization are factors of age, education, mother's employment status, officer's attitude, immunization location, and knowledge. Several other factors are suspected to relate to the achievement of immunization-based children. The research aims to find related factors to the achievement of immunization base complete in infants in Punggur Kecil Village in the work area of Health Center Back.

The methods are quantitative and have a cross-sectional design with as many respondents as 70 respondents. Retrieval sample in study This uses the technique of systematic random sampling. Data collection with method interview. Univariate data analysis is displayed in the distribution table from frequency, and bivariate analysis by using the Chi-Square test.

Research results show that There is a significant connection between the age mother ($p = 0.526$), employment status mother ($p = 0.220$; $OR = 0.839$), and level of education mother ($p = 0.132$) against achievement immunization with mark p value > 0.005 , whereas attitude mother ($p = 0.000$; $OR = 21$) and support family ($p = 0.000$; $OR = 0.286$) has a significant relationship with achievement immunization base complete.

Factors related to the achievement of complete basic immunization in infants in Punggur Kecil Village, Punggur Health Center working area are family attitudes and support. Mother's age, mother's education level, and mother's employment status are not factors related to the achievement of complete basic immunization in infants in Punggur Kecil Village, Punggur Health Center working area.

Keywords: Infants, Immunization base complete, Factors

Introduction

Immunization is a public health effort that has proven to be the most cost-effective. And has a positive impact on realizing the health of mothers and children in Indonesia. This can be felt with the resistance of our immune system against a type of disease by administering programmed immunization [1]. Immunization not only protects individuals but also society, by providing community protection or what is called herd immunity. Immunization is the most important effort in creating children's immunity.

Immunization can prevent and reduce the incidence of illness, disability, and death due to Immunization-Preventable Diseases (PD3I), which is estimated to be 2 to 3 million deaths each year [2].

World Health Organization disclosed as many as 32.9% of children had incomplete immunization as many as 9.2% of children were not immunized, and around 57.9% of children were immunized. Coverage immunization base complete in a way national by

84.2%. This figure did not meet the strategic plan in 2021, which was 93.6%. Coverage immunization base complete in 2021 almost the same as in 2020. In 2022 the achievement of immunization completes routine basics in a way national reached 94.9%, but this is not yet enough because in still below the WHO target of 99% [3].

West Kalimantan Province in 2021 occupied ranked 25th out of 34 provinces in Indonesia and is still far from the Ministry of Health's strategic plan target of 92.9% in 2020 and 93.6% in 2021. Achievements immunization base completed in Kubu Raya regency in 2022 reached 68.3%, still far from the strategic plan target Ministry of Health in 2023 amounted to 92.9%. Kubu Raya is ranked 9th out of 14 districts/cities in west Kalimantan. Community Health Center is one of the health centers located in the Kakap sub-district of Kubu Raya Regency. Achievements immunization base complete in community health center experience increase for 3 years final however achievement this still below the strategic plan target regency by 82%. The achievement immunization base completed in Punggur Kecil village in 2020 was 51.54% very far from the district target.

Results research conducted previously has lots of explained factors affecting completeness immunization. Coverage immunization base completed influenced by factors of age mothers, level of education mother, employment status of mothers, attitude officer, and location of immunization other studies report factors that influence giving immunization base complete in infants ages 12-23 namely factor knowledge to giving immunization base in infants. Factors that cause the failure of the immunization program base are factor attitude of officers and support family [4], besides that also a factor education, knowledge, work, and attitude mother [5].

Interview results with the coordinator immunization community health Center data were obtained that, the suspicious factors affecting level achievement immunization base complete like support family, working mother, attitude Mother, and education have a big influence on achievement immunization baby. The results of the preliminary survey conducted to

coordinate immunization obtained information that education is not too influential because lots of mothers who level education only until elementary school brings their son to immunization at Posyandu or a community health center, while mothers who level education higher school or bachelor's degree refused for bring his son get immunization without can mention the reason.

The phenomenon that occurs low achievement immunization base is completely in place to be examined one of them allegedly because attitude between mother and support family where family sometimes blames the mother if the child has a fever after immunization and the mother feels bothered if the child fever as well as fussy after immunized. Through study, this can know related factors with achievement immunization base completed. Research this important for help taker policy in look for effort act carry on breakdown problem in increase achievement immunization base complete. Until the moment this has not yet once done study about factors affecting the level of achievement immunization base in infants in Punggur Kecil village. Research this aims to know the related factors with level achievement immunization base complete in Punggur kecil village in the community health center.

Method

Research design with use approach cross-sectional. The sample in the study is a mother who has infants aged 0-12 months in Punggur Kecil village, work area health center the back of 70 respondents. The sampling sample in a study uses the technique of systematic random sampling. In this study, the questionnaire used as a research instrument was done validity and reliability test. Research has to obtain ethical clearance from Committee ITEKES Muhammadiyah Number: 354/II.I/AU/KET.ETIK/IX/2023. Data analysis using data analysis software, with the analysis univariate displayed in distribution table form frequency, and bivariate analysis by using the Chi-Square test.

Result

Distribution frequency based on characteristics respondent study can be seen in Table 1 below:

Table 1. Distribution respondent characteristics

Variables	n= 70	
	f	%
Immunization status		
1. Incomplete	10	14.3
2. Complete	60	85.7
Age		
1. 17-25	24	34.3
2. 26-35	36	51.4
3. 36-45	10	14.3
Education		
1. No school	3	4.3
2. Elementary school	11	15.7
3. Junior high school	19	27.1
4. High school	29	41.4
5. College	8	11.4
Occupation		
1. Not working	62	88.6
2. Work	8	11.4
Attitude		
1. 1. Not agree	7	10.0
2. 2. Agree	63	90.0
Support Family		
1. Not supported	14	20.0
2. Support	56	80.0

Based on Table 1 can be distribution characteristics of respondents based on immunization status variables children, children who are 'completely' immunized, namely as many as 60 respondents (85.7%), and children who were immunized 'not completely' as many as 10 respondents (14.3%). Characteristics respondent category age 17-25 years as many as 24 respondents (34.3%), category age 26-35 years as many as 36 respondents (51.4%) and category aged 36-45 years as many as 10 respondents (14.3%). Based on variable level education obtained results that, the respondent 'did not school' as many as 3 respondents (4.3%), 'level elementary school education' as many as 11 respondents (15.7%), respondents with 'level junior high school education' as many as 19 respondents (27.1%), 'level of 'high school education' as many as 29 respondents (41.4%), and 'high school education level' and ' bachelor education' as many as 8 respondents (11.4%). The results of the studies find that

the employment status Respondent category of mothers who do not work is as many as 62 respondents (88.6%) while respondent mothers with working status as many as 8 respondents (11.4%). Distribution characteristics Respondents based on attitude obtained results that, the respondent attitude 'no agree' to immunization as many as 7 respondents (10%), and respondents with 'agree' attitude towards immunization as many as 63 respondents (90%). On the characteristics, support family obtained results that, as many as 14 respondents (20%) said family 'no support', while families 'support' immunization as many as 56 respondents (80%).

Analysis results related factors with complete basic immunization achievement in infants can be seen in Table 2 below.

Table 2. Factors related to the level of immunization based on complete

Variables	n=70				X	p
	Immunization status					
	No		Comple te			
	f	%	f	%		
Age mother						
1. 17-25 years old	54	77.1	19	27.1	1.28	0.53
2. 26-35 years old	1	5.7	32	45.7		
3. 36-45 years old		14	9	12.8		
Occupation						
1. Doesn't work	10	10	52	74.3	1,51	0.220
2. Work	0	0	8	11.4		
Education						
1. No school	0	0	3	4.3	7,08	0.132
2. Elementary school	16	14	10	14.3		
3. Junior high school	30	86	13	18.6		
4. High school		43	26	37.1		
5. College		0	8	11.4		
Attitude						
1. Not agree	7	10	0	0	46,67	0.000**

2. Agree	3	4. 3	6 0	85. 7		
Support Family						
1. No support	1 0	1 4. 3	4 5 6	5.7 80	46, 67	0.00 0**
2. Support	0	0				

Based on Table 2 it is known that the mother category age 17-25 years with child status 'no immunization complete' amounted to 5 respondents (7.1%) and mothers with the child's status 'immunization complete' as many as 19 respondents (27.1%). Mothers with category age between 26-35 years old who have a child with the status 'immunization complete' as many as 32 respondents (45.7%), while those who have children 'not immunized complete' as many as 4 respondents (5.7%). Mothers with category age 36-45 years with the child's status 'not immunized complete' as many as 1 respondent (1.4%) and mothers with the child's status 'immunization complete' totaling 9 respondents (12.8%). The results of the statistical test explain no there is a significant relationship between age with achievement in immunization children with $p = 0.526$ ($p > 0.05$).

Research results found that mothers with the category 'no work' with child status 'immunization complete' had as many as 52 respondents (74.3%), and mothers with the category 'work' with child status 'immunization complete' amounted to 8 respondents (11.8%). Mothers who 'not work' with child status 'no immunization complete' as many as 10 respondents and mothers who 'work' with child status 'not immunized complete' No there is. Statistical test results explain that no there is a significant relationship between the employment status of mothers and the achievement of an immunized child with $p = 0.220$ ($p > 0.05$).

The study also found that with a mother with the category education 'no school' there were 3 respondents with a child's immunization status 'complete' while mother with the category 'elementary school', with child status 'no immunization complete' amounted to 1 respondent (1.4%) and mother with the child's status 'immunization complete' as many as 10 respondents (14.3%). Mothers with category

education 'junior high school' with child status 'no immunization complete' amounted to 6 respondents (8.6%) and mothers with the child's status 'immunization complete' as many as 13 respondents (18.6%). Mothers with category education 'high school' with child status 'no immunization complete' 3 respondents (4.3%) and mothers with the child's status 'immunization complete' as many as 26 respondents (37.1%). Research also found that mothers with the category education 'college' as many as 8 respondents (11.4%) with child status 'immunization complete'. Statistical test results show that no there is a significant relationship between the level of education of mothers with achievement of immunization basics in infants $p = 0.132$ ($p > 0.05$).

Based on Table 2 above, the research found that mothers with the category attitude 'not agree' with child status 'no immunization complete' as many as 7 respondents (10%), and mothers with the category the attitude of 'agree' with the child's status 'no immunization complete' amounted to 3 respondents (4.3%). Categorical mother's attitude of 'agree' with the child's status of 'immunization complete' in as many as 60 respondents (85.7%). The results of the statistical test show that no there is a significant relationship between the attitude mother and with achievement of the immunization base complete for infants with $p = 0.000$ ($p < 0.05$).

Research results find that, on the support variable family, mothers with category attitude 'no support' with child status 'no immunization complete' as many as 10 respondents (14.3%), and children with the status 'immunization complete' as many as 4 respondents (5.7%). Meanwhile mothers with category 'supportive' attitude with child's 'immunization status complete' as many as 56 respondents (80%). The results of the statistical test show that there is a significant relationship between

support families with achievement immunization base complete with mark $p = 0.000$ ($p < 0.05$)

Discussion

The research result this not in line with research that states there is a connection between age mothers with completeness of immunization basic in infants 12 months of age [6]. The more mature a person is, the more life experience they will have, and it will be easier to accept changes in behavior. Personal experience is generally used as an effort to gain knowledge by repeating the experiences gained in solving problems faced in the past. In addition to that, the older a person is, the more life experience they will have can have an impact on the increase in knowledge obtained in research, age mother no influence on the achievement of immunization in Punggur Kecil village because still lots of moms age adults who see family (husband, parents, and in-laws) as role models and parties who become determinant in decide for give immunization to her child. Even though the mother the already exposed to information about immunization as well as already understanding about importance of immunization opinion still becomes a consideration in making decisions about immunization in children.

Although work has no influence on the achievement of immunization base for infants in Punggur Kecil village, work area community health center, however, based on the results study got more lots mothers who don't work that have children with achievement immunization complete. Researchers argue that mothers who don't work more lots of chances to bring their children immunized because can arrange a time between work at home with a timetable immunization at the facility service health and not disturbed by activity, but a mother who doesn't work also more fast influenced by people closest to you because they are giver information first for mother.

Working mothers can get information from various parties like a friend's office or someone else so that working mothers can explain information about immunization to their families. Working mothers have the same working hours as other workers. Mother's employment status is related to opportunities for childbearing children to get immunizations at healthcare facilities. A mother who does not work will have the opportunity to bring her child his to be immunized compared to working mothers. Mothers who work outside the home often do not have the

opportunity to come to the immunization service location because perhaps when the immunization service was carried out the mother was still working at her workplace. Often mothers who are too busy with their work forget about their child's immunization schedule [7]. Research results this in line with studies previously found that work is not related to complete basic immunization in infants [8], however, This is not in line with studies others stated there is a significant relationship between the mother's occupation and the completeness of basic immunization in infants aged 12-59 months [9; 10].

Based on the results studies show no there is a significant relationship between the level of education mother with the achievement of immunization in infants, results study This in line with research conducted previously found that there is no relationship between the mother's education level and complete basic immunization coverage [11,12]. Achievement immunization base complete not only influenced by the level of education but external factors and environmental like family (husband, parents), and culture still very influential in making family decisions. Although mothers have their level of higher education as well as get more information lots about immunization, the family is also a determinant in making a decision and whether the child is immunized or not.

Based on the results studies showed there is a connection between the attitude of mothers and with achievement of immunization base complete for infants in Punggur Kecil village, work area community health center. Research results this in line with the study previously stated that there is a significant relationship between the mother's attitude regarding complete basic immunization and the completeness of basic immunization in infants [13,14] Attitude is a predisposition for response to environmental stimuli that can initiate or guide the person's behavior or preparation to react to objects in the environment as form appreciation/ understanding to object in this case. This can explain that attitude is not an action but a reaction to something that will determine the action to be taken or done [15]. Several factors can influence the formation attitude of somebody that is experience, other people (friends) close, parents, respected figures), culture, mass media, institutions educational and religious institutions, as well factor emotions [16]. Based on the results that

moment interview respondents' attitudes to achievement immunization, the factors mentioned it is very influential indeed in determining the attitude of respondents especially other people's factors matter this family (parents), culture, and mass media. Information that is not correct about immunization on social media is also very influential in determining the attitude of mother to bring their child was immunized. Research recommends that the workforce health can do follow-up and review more carry on related with factors that influence attitude mother immunization based on the baby below age 0-12 months. Officer health as extension worker health is also must explain and straighten out wrong health information especially about immunization base complete so that the community can filter correct and incorrect information directly believe with news circulating on social media.

Based on the results study shows there is a significant relationship between support family with achievement immunization completion. Research results This is in line with the study previously stated that there is a relationship between family support and the completeness of basic immunization in infants [11; 17]. Support family is the attitude, action, and acceptance of every member of the family that is realized in the form of love darling, advice, support material, and so on [18]. Support family is one of form interaction each other giving and receiving help which is carried out by a family consisting of from husband, wife, in-laws, and parents [19]. The family has 8 functions that are a function of religion, love, reproduction, economy, social culture, function protection, function socialization and education, and functions coaching environment. Support family is very related close to function family things this become one unity so what mothers do is greatly influenced by things those. In some case happen mother who doesn't get support family Then give an immunization son will be blamed if happen impact of immunization fever, so the mother will feel guilty and will change her attitude as well as decision mother furthermore on health status as well as the right child to get an immunization.

The study recommends intervention in the family, and the family can become a target by an officer of health to give information related to problem health, especially immunization so members of the family can understand and comprehend as well as support activity

immunization so that the mother who has infants will also get influence positive about immunization.

This researcher limited research-related factors with achievement immunization base complete like age, employment status, education, attitudes, and support family without seeing other factors such as social culture and religion. The research next can explore factors social culture and religion towards achievement of immunization base complete child.

Conclusion

Factors that influence the achievement of complete basic immunization in infants in Punggur kecil village, Punggur health center working area are family attitudes and support. Mother's age, mother's education level, and mother's employment status are not factors that influence the achievement of complete basic immunization in infants in Punggur kecil village.

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