

## Factors related to the completeness of basic immunization for babies in Kadikadaran village, Ciruas health center working area in 2023

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### ABSTRACT

The results of immunization completeness in Kadikadaran Village, Working Area of the Ciruas Health Center, are the lowest villages with respect to complete basic immunization completeness status of 52%. The purpose of this study was to determine the factors associated with the completeness of basic immunization in infants 0-9 months in Kadikadaran Village, the working area of the Ciruas Health Center. This type of research uses quantitative research with a correlation design using a cross sectional approach. The sample of this research is 84 respondents with total sampling method. The results of the study showed significant results, namely  $p < 0.05$ , there was a relationship between work 0.361, knowledge 0.000, self-efficacy 0.004, family support 0.002, support for health workers 0.005 and there was no relationship to the education variable 0.146 ( $p < 0.05$ ). The research hopes that health workers will provide alternative ways in the posyandu program for working mothers to keep their children immunized.

## Introduction

Immunization or the body's immunity against disease threats is the main goal of vaccination. In essence, immunity can be possessed passively or actively. Both can be obtained naturally or artificially (Ranuh, 2008). Therefore, it is necessary to carry out immunization as an effort to prevent disease attacks that affect children's nutritional status. Immunization has been proven to be a very important public health effort. The immunization program has shown extraordinary success and is a very cost-effective effort in preventing infectious diseases (MOH RI, 2003). Immunization has also succeeded in saving so many lives compared to other public health efforts.

Nearly all over the world, 20 million children are not fully immunized and some are not immunized at all. In fact, high (at least 95%) and evenly distributed complete immunization is needed to achieve herd immunity. However, currently, there are still many children in Indonesia who have not received complete immunization. The public health movement aims to achieve the highest level of public health through health efforts and community empowerment supported by funding protection and equitable distribution of health services in the health sector. The Sustainable Development Goals (SDGs) health development goals aim to reduce the infant and child mortality rate to 250 per 01,000 live births in all countries by 02030 (SDGs, 2015). The role of midwives in providing complete basic immunization is part of continuous midwifery care for babies (Ningsih, 2017).

Indonesia is one of the priority regions for implementing the National Movement for the Acceleration of Immunization. Completeness of basic immunization has reached the target of



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092.9%. In 2020, the national basic immunization completion rate was 083.3%. The completion rate for complete basic immunization in 2020 was the lowest since 02011-2019 due to the COVID-19 pandemic (Ministry of Health of the Republic of Indonesia, 2020).

Factors related to the completeness of basic immunization include several things, one of which was stated by Suparyanto (2011) who stated that factors related to the completeness of toddler immunization include knowledge, motives, experience, work, family support, posyandu facilities, environment, attitudes, health workers, income and education. According to L. Green's theory (1980) summarized by Zulazmy Mamdy (2001), there are three factors that can influence health-related behavior: influencing factors (knowledge, work, intentions, attitudes, motivation, perceptions, level of education, desires, beliefs), supporting factors (availability of health facilities, accessibility, health priorities and commitment), determining factors (family, friends, experience, superiors, employee health, social support). In this research, more emphasis is placed on influencing factors (knowledge, work, education, beliefs) and determining factors (support from family and health service providers) (Sari Pauspita et al, 2022).

Kadikaran Village is one of 15 villages in the Ciruas Public Health Center working area, has a complete immunization rate in 2022 of only 52% of the target of 100% for 84 babies, and has the lowest immunization completeness rate in 2022 compared to other villages in the Ciruas sub-region. In this case, the completeness of immunization in the village only reached: HB-0 8.9%, BCG 10.1%, DPT-HB-Hib 15.9%, Polio 15.9%, IPV 70%, Measles 14, 1% of these results indicate that the complete initial immunization status still does not meet UCI standards. Kadikaran Village has the lowest immunization achievement among all villages in the Ciruas Health Center area. This occurs even though demographic data shows that the residents of this village have easy access to health facilities. Several factors influence the achievement of immunization completeness targets, such as false myths about immunization, people's belief that immunization makes their children sick, disabled or even die, public understanding or knowledge, especially parents who still do not attach enough importance to immunization, parents' motivation to immunize their children. still low, mothers work as employees in companies, so they do not comply with immunization recommendations, and the attitude of parents who do not care about immunizing their children. Currently there is an active anti-immunization black campaign in several regions in Indonesia through workshops and anti-immunization education programs, and this is supported by research (Dewi Nur I.S., 2015). The aim of this research is to determine the factors related to the completeness of basic immunization for babies in Kadikaran village in the Ciruas health center working area in 2023

## Methods

This research design uses quantitative research with a correlation design using a cross sectional approach. Education, employment, knowledge, self-efficacy, family support, health support as independent variables and completeness of basic immunization in babies as the dependent variable. The population in this study were mothers who had babies aged 12-24 months, 84 respondents. If the population is less than 0100 people, then the whole can be taken, so the sampling technique in this research is total sampling where the number of samples is the same as the population or 100%, namely 84 respondents. The inclusion criteria in this study were: Mothers with babies aged 12-24 months, mothers who had a child vaccination card (KI



card or other medical record), and the exclusion criteria for this panel were mothers who were not willing to be respondents. This research was carried out in the Kadikaran Village, Ciruas Community Health Center, Serang Regency, from April to May. This research instrument uses a questionnaire which has been tested for validity and reliability by previous researchers, Arsyad (2019).

Data processing on the knowledge variable which consists of 14 question items with a scoring system and determining knowledge categories into good and not good. OK, if the answer is correct with a score of 8-14, less, answer with a score of 1-7. Data processing on the self-efficacy variable which consists of question items with scoring systems and determining positive and negative self-efficacy categories. Positive, answer with a score >12, negative, answer with a score <12. Data processing on the family support variable which consists of question items using a scoring system and determining the family support category into positive and negative. Positive, answer with a score >12, negative, <12. Data processing on the health worker support variable which consists of question items with a scoring system and determining categories of health worker support into positive and negative. Positive, answer with a score >9, negative, answer with a score <9.

Data analysis was carried out using univariate analysis using frequency distribution tables and bivariate analysis using the chisquare test <0.05. The research code has been approved through ethical permission letter number: 259/KEPK.UF/VI/2023.

## Results

Table 1. Frequency distribution of basic immunization completeness status, job characteristics and maternal education, knowledge, self-efficacy, family support and health worker support (n=84).

Variable	N	%
<b>Immunization Completeness Status</b>		
<b>Basic</b>		
Complete	38	45,2%
Incomplete	46	54,8%
<b>Work</b>		
Doesn't work	70	83,3%
Work	14	16,7%
<b>Education</b>		
Low	7	8,3%
Intermediate	77	91,7%
College	0	0%
<b>Knowledge</b>		
Not enough	20	23,8%
Good	64	76,2%
<b>Self efficacy</b>		
Negative	14	16,7%
Positive	70	83,3%



<b>Family support</b>		
Negative	10	11,9%
Positive	74	88,1%
<b>Health Care Support</b>		
Negative	4	4,8%
Positive	80	95,2%
<b>Total</b>	<b>84</b>	<b>100%</b>

Table 2. Relationship between Employment, Education, Knowledge, Self efficacy, Family Support and Nakes on the completeness of vaccines in infants.

Characteristics	Basic Immunization Equipment						P Value	OR
	Incomplete		Complete		Total			
	F	%	F	%	F	%		
<b>Work</b>								
Doesn't work	2	40	4	60	7	10	0.031	0.267
Work	1	71.	4	28.	1	10		
	0	4%		6%	4	0%		
<b>Education</b>								
Low	2	71.	2	28.	7	10	0.146	0.333
Intermediate	3	42.	4	57.	7	10		
	3	9%	4	1%	7	0%		
<b>Knowledge</b>								
Not enough	1	95	1	5,0	2	10	0.000	4.5
Good	1	29,	4	70,	6	10		
	9	7%	5	3%	4	0%		
<b>Self Efficacy</b>								
Negative	1	78.	3	21.	1	10	0.004	5.840
Positive	1	38.	4	61.	7	10		
	7	6%	3	4%	0	0%		
<b>Family support</b>								
Negative	1	90	1	10	1	10	0.002	13.966
Positive	1	39,	4	60,	7	10		
	9	2%	5	8%	4	0%		
<b>Health Care Support</b>								





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Negative	<sup>1</sup>	25	3	75	4	10		
		%		%		0%	0.005	0.587

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Positive	3	46.	4	53.	8	10
	7	3%	3	8%	0	0%
<b>Total</b>	<b>3</b>	<b>45.</b>	<b>4</b>	<b>58.</b>	<b>8</b>	<b>10</b>
	<b>8</b>	<b>2%</b>	<b>6</b>	<b>4%</b>	<b>4</b>	<b>0%</b>

## Discussion

Job characteristics in this study explain that the highest proportion of non-working mothers with complete basic immunization was 42 people (60%) compared to working mothers with complete basic immunization. The results of the research show that there is a significant relationship between employment and completeness of basic immunization. This is in line with research by C. Yateri (2018), if work is one of the sources of family income, then the family has a relatively guaranteed income every month if there is permanent work in the family. If there is no permanent job in the family, the family's monthly income is also precarious. People who have jobs with quite busy schedules will influence Posyandu with lower productivity. In general, parents do not have free time, so the more parents work, especially mothers, the more difficult it is to come to Posyandu. This is in accordance with research by Sambas (2012) which found that mothers who do not work are more likely to not participate in Posyandu compared to mothers who work.

### Correlation Between Characteristics of Maternal Education and Basic Immunization Equipment for Babies in Kadikaran Village, Ciruas Community Health Center Work Area in 2023.

Educational characteristics explain the highest proportion of middle-educated mothers with complete basic immunization as many as 44 people (57.1%) compared to mothers who have a low level of education regarding basic immunization. The results of the study showed that there was no statistically significant relationship between education level and complete vaccination at the start of the study. The results of this research agree with the research studies of Jannah (2019), Ladifre (2019), Istriyati (2019) and Rachmawati (2019), that there is no connection between the level of maternal education and the completeness of basic immunization. Thus, this research is not in the same direction as research by Albertina (2018), Prayoga (2019) and Triana (2019) showing that there is no relationship between education and completeness of basic immunization. Experts state that the differences in the results of this research may be caused by differences in the characteristics of participants from one region to another. others, which influence participants' understanding.

The level of education a person receives in formal education can influence their knowledge. Apart from increasing knowledge, health education can help mothers or community groups to improve their behavior to achieve optimal health. The mother's level of education and knowledge greatly influences the implementation of child or infant immunization interventions, both formal and non-formal. Mothers with a higher level of education tend to be more receptive to the information and immunizations offered. by health care providers; On the other hand, mothers with a lower education level will have difficulty obtaining the available information, so they tend not to understand how much immunization should be given.

### The Relationship Between Mother's Knowledge and Completeness of Basic Immunization for Babies in Kadikaran Village, Ciruas Health Center Working Area in 2023.

Maternal insight shows that the highest proportion of mothers with good knowledge and



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complete basic immunization is 45 people (70.3%) compared to mothers with less knowledge. The results of the study showed that there was a significant relationship between insight into the completeness of basic immunization. This research is in line with research by Albertina (2018), that there is a relationship between parental knowledge and completeness of basic immunization, where mother's knowledge can influence the completeness of basic immunization in her baby. Knowledge is an understanding of something that is obtained through sensations from certain objects. Most of it is acquired through the senses of sight and hearing. Knowledge is obtained from the mother's understanding, so that the information received determines the mother's self-confidence as well as her daily attitudes and behavior, so it can be said that knowledge is a very important area for shaping human actions.

Notoatmojo (2012) argues that good knowledge comes from attitudes, which consist of three main components, namely: (a) beliefs, ideas and concepts about an object, (b) emotional life or evaluation of the object, and (c) disposition to Act. These three components together form a comprehensive attitude. Knowledge of thoughts, beliefs and emotions play an important role in determining this holistic attitude. Attitudes consist of various levels: (a) acceptance, (b) reaction, (c) evaluation, and (d) responsibility.

### **The Relationship Between Self-Efficacy and Completeness of Basic Immunization for Babies in Kadikaran Village Region Kerja Puskesmas Ciruas Year 02023.**

Self-efficacy showed that the highest proportion of positive self-efficacy mothers with complete basic immunization was 43 people (61.1%) compared to negative self-efficacy mothers. The results of the study showed that there was a significant relationship between self-efficacy and basic immunization completeness. The results of this research are in the same direction as Notoatmojo experts regarding the influence of trust and incomplete vaccination, who found that trust influences the status of incomplete vaccination in infants or toddlers. Self-efficacy or beliefs are a direct and close determinant of intentions and behavior. According to social cognitive theory, self-confidence contributes to changes in health behavior. Self-efficacy is thought to influence how mothers perceive and interpret events when making decisions about basic infant vaccinations. Mothers with low confidence easily believe that their efforts to vaccinate their babies will have any effect, so they tend to experience negative symptoms such as not vaccinating or not vaccinating at all.

### **The Relationship Between Family Support and Completeness of Basic Immunization for Babies in Kadikaran Village, Ciruas Health Center Working Area in 2023.**

Family support shows that the highest proportion of mothers received positive family support with complete basic immunization, 45 people (60.8%) compared to mothers who received negative family support. The results of this research show that there is a significant relationship between family support and completion of the first vaccination. Family support is the perception of help a person receives from family members in the form of attention, thanks, information or financial advice that influences the recipient's behavior. Roles are based on perceptions and expectations of roles that explain what a person needs to do in certain situations to meet other people's expectations regarding that role (Friedman, 2020).



The type of support that families can provide is encouragement, counseling, or supervision of the care of the baby or young child. In this research, the family support referred to is the support of parents, in-laws, partners and other relatives in implementing complete basic immunization by providing information about the benefits of immunization, giving permission to carry out immunization, reminding them about the immunization schedule, or facilitating the implementation of vaccination.

### **The Relationship Between Health Care Support and Complete Basic Immunization for Babies in Kadikaran Village, Ciruas Health Center Working Area, 2023.**

Health care support shows that the highest proportion of mothers received positive health care support with complete basic immunization, 43 people (53.8%) compared to mothers who received negative health care support. The results of the research show that there is a significant relationship between support from health workers and completeness of basic immunization. This research is in line with the results of Adit's research (2019), with the results of the analysis of the relationship between support from immunization officers and completeness of basic immunization for babies that there is a significant relationship between support from health workers and complete basic immunization for babies. The media used is the skills of officers in improving immunization services, because the encouragement of health workers in providing active vaccination services and providing appropriate media makes it easy for the public to receive information and programs that have been implemented run well so that the community gets support from health workers in providing vaccinations to their children.

### **Conclusion**

Based on this research, it can be concluded that working mothers who have babies should continue to provide basic immunizations to their children on holidays to increase optimal awareness regarding their child's growth to participate in health care activities and hope that health workers will provide alternative methods in the posyandu program for working mothers to continue providing immunization of their children, as well as establishing immunization classes and providing certificates to babies who have IDL.

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