

The Relationship Between Mother's Knowledge and Husband's Support with The Accuracy of Pentavalent Booster Immunization in Children Aged 18 Months To \leq 24 Months in Cibadak Village Rawamerta Karawang in 2022

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ABSTRACT

Pentavalent booster immunization is given to prevent diphtheria, pertussis, tetanus, hepatitis B, pneumonia and meningitis caused by Haemophilus influenzae type b (Hib). The high incidence of DPT in Indonesia has made the government try to carry out Advanced DPT immunization (Booster), because Advanced DPT immunization (Booster) is important in an effort to maintain high levels of immunity so that it can provide optimal protection. This study aims to determine the relationship between mother's knowledge and husband's support with the accuracy of pentavalent booster immunization in children aged 18 months to \leq 24 months in Cibadak Village Rawamerta Karawang in 2022. Methods: This type of analytical research was designed with a cross sectional design. The population of this study were all mothers who had children aged 24 months to 48 months as many as 106 people. The sample used was 52 people from the population. The data used were primary data and secondary data, using questionnaires, and analyzed using the chi-square test. Results: The results showed that there was a relationship between mother's knowledge and husband's support with accuracy administering pentavalent booster immunization to children 18 months to \leq 24 months in Cibadak Village, Rawamerta sub-district, Karawang Regency, West Java in 2022. It is hoped that posyandu cadres in Cibadak Village can invite mothers who have children under five to bring their children to posyandu for complete basic immunization to pentavalent booster immunization to improve the health status of toddlers.

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1. INTRODUCTION

During epidemics, the incidence of meningococcal meningitis in most parts of the world is 0.2-14 cases per 100,000 people, while in Sub-Saharan Africa it is higher at 1,000 cases per 100,000 people. In Meningitis Belt Africa, WHO defines an epidemic meningococcal meningitis as >100 cases per 100,000 population per year. While in endemic countries, it is categorized as high endemic if >10 cases, moderate endemic 2-10 cases and low endemic <2 cases per 100,000 population per year [1].

The infant mortality rate in Indonesia is 24 per 1,000 live births. A new analysis shows that, last year, pneumonia claimed the lives of more than 800,000 children under five worldwide, or 39 children per second [2]. Pneumonia is the leading killer of children under the age of five in the world, more than other diseases such as AIDS, malaria and measles. However, not much attention has been paid to this disease. In the world, of the 9 million deaths of under-fives, more than 2 million die each year from pneumonia, which equates to 4 deaths every minute. Out of five deaths among children under five, one is due to pneumonia. And more than 800,000 toddlers each year in the world suffer from pneumonia, and about 2,000 toddlers die from pneumonia every day [3].

From the health profile data of Karawang Regency, it was found that the implementation of

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batuta immunization in Rawamerta sub-district was still relatively low at 54.54%. The immunization achievement has not reached the Ministry of Health's Renstra target which has been determined at 91.12% [4]. Nugrawati (2019) explains that mother's knowledge and attitudes in providing complete basic immunization are influenced by mother's knowledge about the benefits of complete immunization, sufficient community about immunization needs to be improved so that the next generation can avoid certain infectious diseases. What needs to be improved is to increase public education on the importance of immunization, the side effects of immunization and the content of immunization vaccines [5].

The timeliness of immunization must be maintained because immunization, besides having to follow the existing schedule, as much as possible must be on time. This is important because it is proven that with the timeliness of immunization according to the schedule, the level of immunity will be achieved against PD3I and will broadly prevent outbreaks, [6]. Based on the description above, the authors are interested in examining and identifying the Relationship between Mother's knowledge and Husband Support with the Accuracy of Pentavalent Continued Immunization in Children aged 18 months to \leq 24 months in Cibadak Rawamerta Village, Karawang in 2022.

2. METHOD

This type of research is analytic research, which is a study that aims to determine the relationship between one variable and another (Susila and Suyanto, 2014). The design in this study is cross sectional, which is a research design to explain research problems at an individual scope that involves data collection actions to determine whether there is a relationship between two or more variables collected simultaneously. In this case the research was conducted to determine the relationship between mother's knowledge and husband's support with the accuracy of pentavalent continued immunization in children aged 18 months to \leq 24 months in Cibadak Rawamerta Village, Karawang in 2022. The population in the study were all mothers who had toddlers aged 24 months to 48 months in Cibadak Village, Rawamerta District, Karawang Regency as many as 106 people, the sample to be taken in this study were 52 mothers who had toddlers aged 24 months to 48 months in Cibadak Village, Rawamerta District, Karawang Regency.

3. RESULT AND DISCUSSION

Univariate Analysis

Table 1. Frequency Distribution of Respondent Characteristics (Age, Education, Occupation) in Cibadak Village Rawamerta Karawang (N=52)

Respondent Characteristics	F	%
Age		
< 20 years	12	23,1%
21-35 years	29	55,8 %
> 35 years	12	21,2 %
Education		
Diploma III / Bachelor's Degree	14	26,9 %
Senior High School	28	73,1%
Job status		
work	40	76,9 %
Doesn't work	12	23,1 %

Based on table 1 above, the frequency distribution of mother characteristics is the majority of the range of 26-35 years totaling 39 people (55.8%), the majority of senior high school education totaling 28 people (73.1%), the majority of working mothers totaling 40 people (76.9%). When viewed in terms of the age of the existing respondents, the majority are of an age that is not at risk if pregnant, in terms

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of education 73.1% are senior high school graduates / secondary education levels and 26.9% have a higher education / bachelor's degree,

According to W. I. and N. C. Mubarak, (2012) that with higher education, a person will tend to get information, both from other people and from the mass media. The more information that enters, the more knowledge is obtained about health. [7].

Knowledge is closely related to education where it is expected that someone with a higher education will have a broader knowledge. When viewed in terms of work 76.9% are working and 23.1% are categorized as not working. According to that the work environment can make a person gain experience and knowledge, both directly and indirectly.

Judging from the characteristics of the respondents, that the respondents are mothers who have a fairly mature age (the majority are 21-35 years old). Supposedly with a mature age, the mindset will also be better. However, what happened was different from the theory W. I. and N. C. Mubarak, (2012) that with increasing age a person will experience changes in physical and psychological (mental) aspects. [7].

Research Indrawati & Puspitaningrum, (2016) states that age has a close relationship with various characteristics of other people and also with place and time. The age of mothers who have increased within a certain limit can increase the experience of mothers in caring for children, so that it will affect efforts to prevent and overcome the onset of disease. [8].

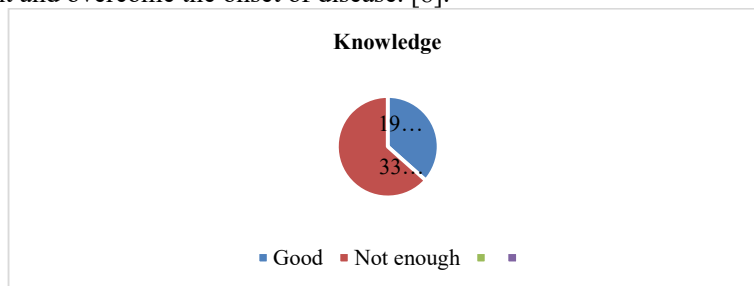


Diagram 1. Frequency Distribution of Knowledge of Pentavalent Booster Immunization in Children Aged 18 to \leq 24 Months in Cibadak Village Rawamerta Karawang

The frequency distribution of mother's knowledge of the majority is not good enough, totaling 33 people (63.5%) and good knowledge amounted to 19 people (36.5%). The results showed that the majority of respondents had poor knowledge. Based on the questionnaires answered by respondents, many of the respondents answered incorrectly about one type of booster immunization in children, the function of giving pentavalent booster immunization and which is included in pentavalent booster immunization. This shows that mothers in Cibadak Rawamerta Village, Karawang still lack understanding about pentavalent immunization.

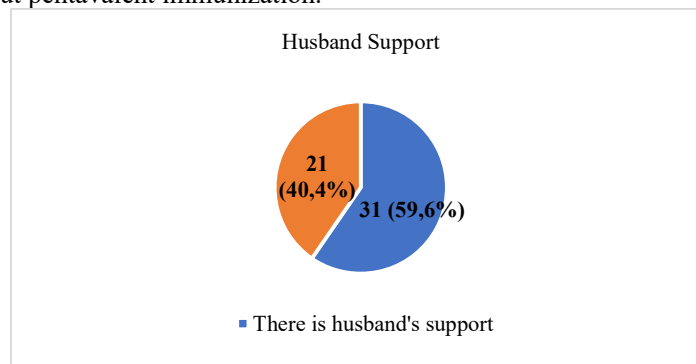


Diagram 2. Frequency Distribution of Husband Support for Pentavalent Booster Immunization for Children Aged 18 to \leq 24 Months in Cibadak Rawamerta Village, Karawang

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Based on diagram 2, the frequency distribution of husband support, the majority of husband's support is 31 people (59.6%) and no husband's support is 21 people (40.4%). In line with research conducted by Yuliana Makamban, 2014 which states that mothers who are supported by their families have babies with complete immunization status, otherwise mothers who are not supported by their families have incomplete immunization status babies with the results of the analysis of the effect of family support on immunization provision obtained a ρ value of 0.001 ($\rho \leq \alpha$) which means that there is an influence of family support on incomplete immunization in infants or toddlers.

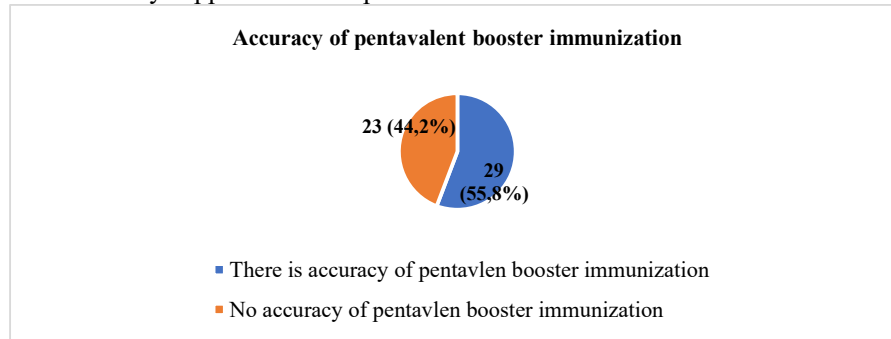


Diagram 3. Frequency Distribution of Accuracy of Pentavalent Booster Immunization in Children Aged 18 to \leq 24 Months in Cibadak Village Rawamerta Karawang

Based on the results of the study summarized in diagram 3, the frequency distribution of the accuracy of pentavalent booster immunization, the majority of the accuracy of pentavalent booster immunization is 29 people (55.8%) and there is no accuracy of pentavalent booster immunization totaling 23 people (44.2%), these results are in line with the results of Retnawati's research (2021) which shows that the practice of pentavalent booster immunization that has not been carried out is found more in the group of respondents who lack families support (45.7%) compared to the group of respondents who get support from the family.

Bivariate Analysis

Table 2. The Relationship Between Knowledge and Accuracy of Pentavalent Booster Immunization in Children Aged 18 to \leq 24 Months in Cibadak Rawamerta Village, Karawang.

Knowledge	Accuracy of pentavalent booster immunization				Total		<i>Asymp.sign (2-sided)</i>
	Accuracy		No accuracy				
	f	%	F	%	f	%	
Good	19	36,5%	0	0%	19	36,5%	0,000
Not enough	10	19,3%	23	63,5%	33	63,5%	
Total	29	55,8%	16	44,2%	52	100%	

Based on the table above, it can be seen that of the 33 respondents who had poor knowledge, 10 people or 19.3% were found to have the accuracy of pentavalent booster immunization, then 23 people (63.5%) had no accuracy. Whereas from 19 people who have good knowledge, there are 19 people (36.5%) getting the accuracy of pentavalent immunization and 0 people (0.0%) there is no accuracy of pentavalent immunization. The results of the statistical test analysis using the chi-square test show the relationship between knowledge and the accuracy of pentavalent booster immunization, the *Asymp.sign* value is 0.000, because the p-value of 0.000 $<$ 0.05, it can be concluded that there is a relationship between knowledge and the accuracy of pentavalent booster immunization.

This study is in line with research conducted by Safitri, et al (2020) in Aceh with the results of

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the relationship between mother's knowledge of booster immunization with the completeness of booster immunization in toddlers in the working area of the Leupung health center in Aceh with a p value of 0.001. Similarly, the results of research conducted by Pangaribuan on the determinants of the completeness of booster immunization in toddlers in the Sentosa Baru Health Center work area in Medan City in 2018, it can be concluded that there is a significant relationship between mother's knowledge and the completeness of booster immunization in toddlers with a p value of 0.001 [9].

The relationship between husband's support and the accuracy of pentavalent booster immunization for children aged 18 to \leq 24 months in Cibadak Rawamerta Village, Karawang.

Table 3. Relationship Between Husband's Support and The Accuracy of Pentavalent Booster Immunization in Children Aged 18 to \leq 24 Months in Cibadak Rawamerta Village, Karawang

Husband support	Accuracy of pentavalent booster immunization						Asym.sign (2-sided)
	Accuracy		No accuracy		Total		
	f	%	f	%	f	%	
There is husband's support	29	55,8%	2	3,8%	31	59,6%	0,000
No husband's support	0	0 %	21	40,4%	21	40,4%	
Total	29	55,8%	23	44,2%	52	100%	

The results of the analysis of the relationship between husband's support and the accuracy of pentavalent booster immunization show an Asymp.sign value of 0.000, because the p-value of 0.000 $<$ 0.05, it can be concluded that there is a relationship between husband's support and the accuracy of pentavalent booster immunization. Husband's support plays a crucial role in determining the accuracy of pentavalent booster immunization, because the tendency of working wives to interfere with immunization is in line with the research of Kuntari Pujiasih (2017), that working mothers tend to have social barriers, namely difficulties in dividing time for the family. If women work and are unable to manage their time properly, this can cause tasks that should be carried out by a wife in taking care of the household to be neglected, such as household chores to take care of children and serve husbands [10]. This research is in line with research conducted Safitri & Andika, (2020) in Tangerang with the results that there is a significant relationship between family support and the completeness of immunization of toddlers with a p value of 0.000. [9].

Research conducted by Yuliana Makamban (2014) which states that mothers who are supported by their families have babies with complete immunization status, otherwise mothers who are not supported by their families have incomplete immunization status babies with the results of the analysis of the effect of family support on immunization provision obtained a ρ value of 0.001 ($\rho \leq \alpha$) which means that there is an influence of family support on incomplete immunization in infants or toddlers. This is supported by Munawaroh, 2016 in his research which states that based on the results of univariate analysis, 59.3% of respondents lacked family support in the practice of pentavalent booster immunization [11].

4. CONCLUSION

In relative terms, 55.8% of respondents are in the age category that is not at risk, the majority are aged 21-35 years and the rest are in the age category that is relatively at risk $<$ 20 years and $>$ 35 years. knowledge on pentavalent booster immunization, the majority of mothers have insufficient knowledge totaling 33 people (63.5%) and good knowledge totaling 19 people (36.5%) husband's support, the majority have husband support totaling 31 people (59.6%) and no husband support totaling 21 people (40.4%). The relationship between knowledge and the accuracy of pentavalent booster immunization in children aged 18 to \leq 24 months in Cibadak Rawamerta Village, Karawang, Asymp.sign value of 0.000, because the p-value of 0.000 $<$ 0.05, it can be concluded that there is a relationship between

knowledge and the accuracy of pentavalent booster immunization. The relationship between husband's support and the accuracy of pentavalent booster immunization in children aged 18 to ≤ 24 months in Cibadak Rawamerta Village shows an Asymp.sign value of 0.000, because the p-value is $0.000 < 0.05$, it can be concluded that there is a relationship between husband's support and the accuracy of pentavalent booster immunization.

If seen from the results of this study, with the relative accuracy of giving pentavalent booster immunization, it is necessary to continue to socialize to the community, but it is necessary to first increase the mother's knowledge of this immunization, so that it does not seem forced, as well as the support of the closest people around the family in this case the husband's support. The asymp.sign value is 0.000, because the p-value of $0.000 < 0.05$, the relationship between husband's support and the accuracy of pentavalent booster immunization becomes more meaningful. Likewise, the relationship between knowledge and the accuracy of pentavalent booster immunization in children aged 18 to ≤ 24 months in Cibadak Rawamerta Village, Karawang, obtained an asymp.sign value of 0.000, because the p-value of $0.000 < 0.05$, these results indicate a relationship between knowledge and the accuracy of pentavalent booster immunization in Cibadak Rawamerta Village, Karawang.

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