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AN ANALYSIS OF FACTORS INFLUENCING THE PROVISION OF PENTAVALENT IMMUNISATION IN KAPUAS KANAN HULU URBAN VILLAGE

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Abstract

Pentavalent immunisation was carried out simultaneously in Indonesia in February 2014 in West Java, the immunisation coverage until July was above the average target. Immunisation of DPT-HB-Hib 1 from the target coverage of 57.2% turned out to be 59.3%, DPT-HB-Hib 2 from the target of 55.4% the coverage was 57.9%, DPT-HB-Hib 3 from the target of 52.5% through July coverage was more than 57.8%. This study used an analytical survey with a cross sectional approach carried out in April 2018. The sample of this study was 50 mothers who had babies aged 2-4 months. Data analysis was performed using Chi-Square. The results showed that there was a correlation between knowledge (p = 0.035), attitude (p= 0.039) and Health Officer Support (p= 0.034) with the provision of Pentavalent Immunization in Kapuas Kanan Hulu Village in the Work Area of Puskesmas Sungai Durian Sintang. The health care can focus more on providing information about Pentavalent Immunisation and fostering the desire of the community to immunise their babies by motivating people to maintain the health and development of their children.

Keywords: Immunisation, Pentavalent, Knowledge, Attitude, Health Worker Support

Introduction

The World Health Organization (WHO) states that the under-five mortality rate due to Immunisation Preventable Diseases (PD3I) is still high. There are 1.4 million under-five deaths per year and almost 17% of deaths in children <5 years. Diphtheria cases worldwide in 2012 were 4490 cases and increased in 2014 to 4680 cases. Pneumonia and meningitis caused by *Hemophillus influenza type b* (Hib) are increasing in infants ≤ 1 year of age, an estimated 19.3% of infants and children have not been fully vaccinated and are at risk of disease (WHO, 2015).

Indonesian health profile data shows that 32.1% of children were incompletely immunised and even 8.7% were never immunised. This low coverage of complete basic immunisation raises concerns about the incidence of PD3Is. In Indonesia pneumonia and meningitis account for 8.8% of all recorded deaths in children under five years of age.

Pentavalent immunisation was conducted simultaneously in Indonesia in February 2014 and in West Java the

coverage up to July was above target. DPT-HB-Hib 1 immunisation from a target coverage of 57.2% reached 59.3%, DPT-HB-Hib 2 from a target of 55.4% reached 57.9%, DPT-HB-Hib 3 from a target of 52.5% reached more than 57.8% by July. There are four regions with coverage rates below the target for DPT-HB-Hib (Pentavalent) immunisation. The four regions are Aceh Province, East Nusa Tenggara (NTT), Papua, and North Kalimantan (Puspitaningrum, 2015).

Based on data from the West Kalimantan Health Office, *Universal Child Immunization* (UCI) coverage in all provinces in Indonesia must reach 100%. The highest UCI achievement was in Landak District (89.1%), followed by Mempawah District (86.6). The lowest UCI achievement was in Singkawang City, which was 42.3%, followed by Sanggau 56.2%, Sintang 79.1% (West Kalimantan Profile, 2015), but this achievement is still below the UCI target.

Data from the Sintang District Health Office shows that in 2017, Pentavalent immunisation coverage reached the target of 93%, namely Merakai Health Centre with 100%, Mensiku Health Centre 100%, Dara Juanti Health Centre 100%, Tanjung Puri Health Centre 98%, Kebong Health Centre 95%, Nanga Lebang Health Centre 94%, Kemangai Health Centre 93% while DPT-HB-Hib (Pentavalent) immunisation coverage that did not reach the target in Sintang city was at Sungai Durian Health Centre with a percentage of 85% (Sintang District Health Office, 2017).

The results of preliminary studies conducted by researchers in March 2020 in Kapuas Kanan Hulu Village, Sungai Durian Health Center Working Area, Sintang Regency, the number of mothers who have babies aged 2-4 months is 180 people who did not get complete DPT-HB-Hib (Pentavalent) immunisation 5 people. The results of interviews conducted with 5 mothers who have babies aged 2-4 months showed that 4 mothers did not know about DPT-HB-Hib (Pentavalent) immunisation, the schedule of immunisation and the function/benefit of immunisation to prevent any disease. One mother knew the immunisation schedule but did not understand things related to DPT-HB-Hib (Pentavalent) immunisation. Three of the five infants were immunised at the right time but the mothers did not understand the immunisation schedule and knowledge about immunisation. The mother said that she only followed what was instructed by the midwife.

Methods

The design in the study was *cross sectional* approach. The *cross sectional* approach is research to study the dynamics of the correlation between risk factors and effects, by approaching, observing or collecting data at the same time (Notoatmodjo, 2010).

Results

1. **The Relationship between Knowledge and Pentavalent Immunisation Delivery**

Table 1.1
Relationship between Knowledge and Pentavalent Immunisation in Kapuas Kanan Hulu Village

Knowledge	Pentavalent Immunisation				Total		P value	OR (95% CI)
	Not Provided		Provided		N	%		
	n	%	n	%				
Less	23	67,6	11	32,4	34	100	0,035	4,600 (1,281-16,515)
Good	5	31,3	11	68,8	16	100		
Total	28	56,0	22	44,0	50	100		

Source: Primary Data, 2020

Based on table 1.1, it can be seen that the proportion of respondents in the case group with poor knowledge tended not to give their babies pentavalent immunisation by 23 respondents (67.6%), greater than those with good knowledge by 5 respondents (31.3%).

The results of the *Chi-Square* statistical test obtained *P value* = 0.035 (*P* < 0.05), so it can be concluded that there is a significant relationship between knowledge and the provision of pentavalent immunisation in Kapuas Kanan Hulu Village, Sungai Durian Community Health Centre, Sintang Regency.

The results of the analysis also obtained an OR value = 4.600 (95% CI = 1.281-16.515), meaning that respondents with poor knowledge had a 4.6 times greater risk of not giving their children pentavalent immunisation compared to respondents with good knowledge.

2. **Relationship between Attitude and Pentavalent Immunisation**

Table 1.2
Relationship between Attitude and Pentavalent Immunisation in Kapuas Kanan Hulu Village

Attitude	Pentavalent Immunisation				Total		P value	OR (95% CI)
	Not given		Given		N	%		
	n	%	n	%				
Negative	17	73,9	6	23,0	23	100	0,039	4,121 (1,233-13,771)
Positive	11	40,7	16	27,0	27	100		
Total	28	56,0	22	44,0	50	100		

Source: Primary Data, 2020

Based on table 1.2, it can be seen that the proportion of respondents who have a negative attitude tends not to give their babies pentavalent immunisation by 17 respondents (73.9%).

The results of the *Chi-Square* statistical test obtained *P value* = 0.039 (*P* < 0.05), so it can be concluded that there is a significant relationship between knowledge and the provision of pentavalent immunisation in Kapuas Kanan Hulu Village, Sungai Durian Community Health Center, Sintang Regency.

The results of the analysis also obtained an OR value = 4.121 (95% CI = 1.233-13.771), meaning that respondents who have a negative attitude have a 4.1 times greater risk of not giving their children pentavalent immunisation compared to respondents who have a positive attitude.

3. Relationship between Health Officer Support and Pentavalent Immunisation Delivery

Table 1.3
Relationship between Health Officer Support and Pentavalent Immunisation in Kapuas Kanan Hulu Village

Health Officer Support	**Pentavalent Immunisation**				**Total**		**P value**	**OR (95% CI)**
	Not given		**Given**		**N**	**%**		
	n	**%**	**n**	**%**				
Not in favour	22	68,8	10	31,3	32	100	0,034	4,400 (1,283-15,091)
Support	6	33,3	12	66,7	18	100		
Total	28	56,0	22	44,0	50	100		

Source: Primary Data, 2020

Based on table 5.5, it can be seen that the proportion of respondents who stated that health workers did not support tended not to give their babies pentavalent immunisation by 22 respondents (68.8%), greater than respondents who stated that health workers supported 6 respondents (33.3%).

The results of the *Chi-Square* statistical test obtained *P value* = 0.034 (*P* < 0.05), so it can be concluded that there is a significant relationship between Health Officer Support and Pentavalent Immunisation in Kapuas Kanan Hulu Village, Sungai Durian Community Health Centre Working Area, Sintang Regency.

The results of the analysis also obtained an OR value = 4.400 (95% CI = 1.283-15.091), meaning that respondents who stated that health

workers did not support had a 4.4 times greater risk of not giving their children pentavalent immunisation compared to respondents who stated that health workers were supportive.

Discussion

a. Relationship between Knowledge and Pentavalent Immunisation in Kapuas Kanan Hulu Village

The results of this study indicate that the level of public awareness is still very low. The community needs to be given information about the impact if children are not given complete basic immunisation on their growth and development and the future impact on their lives and change the mindset of the community so that they want to come to the posyandu and succeed in UCI Village. Avoiding infants from the risk of morbidity and mortality from diseases that can be prevented by immunisation.

The results of this study are in line with research conducted by Kartini (2016) that there is a significant relationship between maternal characteristics and the level of maternal knowledge about Pentavalent immunisation.

Knowledge is part of the Predisposing factor which is very decisive in shaping a person's behaviour. Knowledge is influenced by the amount of information received and is a tool used by humans to solve the problems they face (Notoatmodjo, 2012). Therefore, efforts to provide information, for example by counseling, need to be carried out by health workers to increase public knowledge about the provision of pentavalent immunisation including understanding, the impact caused, diseases that can be prevented, the schedule of administration and the objectives and benefits of pentavalent administration.

Nowadays, there are many things that can hinder the development of society as a whole. The low socio-economic condition of the community (poor), will result in ignorance (due to the difficulty of education which causes a lack of knowledge) and inability in any case, including health. Furthermore, ignorance and incompetence will make the socio-economic situation stagnate (walk in place) even lower and develop. Increased information in this case is very necessary, to foster public awareness, so that UCI villages can be realised by moving the community itself.

According to Notoatmodjo (2012) cognitive knowledge is a very important domain for the formation of an action. Actions based on knowledge will be more lasting than behaviours that are not based on

respondents' knowledge about the importance of immunising children. Knowledge is closely related to one's actions in determining the respondent's behaviour in choosing whether to bring their children to be immunised or not.

b. Relationship between Attitude and Pentavalent Immunisation in Kapuas Kanan Hulu Village

The results showed that the proportion of case group respondents with negative attitudes was at risk of not giving pentavalent immunisation by 73.9% while respondents with positive attitudes were at risk of 40.7%.

The results of this study are in line with research conducted by Febriani, et al (2016) on factors related to the provision of complete basic immunisation showing a value of P = 0.001, meaning that there is a significant relationship between attitude and Pentavalent Immunisation and OR = 4.121. Attitude is one of the predisposing factors driving a person's behaviour to act (Green in Notoadmodjo, 2012). Attitude is a person's tendency towards certain objects, it can also be a feeling of support or favour or vice versa. Attitude is not yet an action, attitude reflects how a person feels about something. Attitude is a feeling, belief or value that affects the way a person behaves. Attitudes come from knowledge gained through learning and thinking.

Attitude is the tendency to give a response to an object in the form of feelings of favour or agree or disagree, through an interaction process. the components of attitude are knowledge, feelings and tendency to act (Anwar, 2010).

Judging from the results of this study, it shows that people believe that not giving immunisation especially pentavalent is a natural thing, they tend to think that children will remain healthy even without being immunised, some mothers doubt the halalness of the vaccines given so they are afraid to give their babies immunisation.

c. Relationship between the role of health workers and Pentavalent Immunisation in Kapuas Kanan Hulu Village

Immunisation is an important pillar to reduce infant morbidity and mortality due to infectious diseases that can be prevented by immunisation. Immunisation is an important element for improving public health, which ultimately leads to an increase in health status.

The role of health workers is closely related to the Puskesmas programme involving cadres and community participation currently run by the Sungai Durian Puskesmas. The UCI

Village programme has been implemented in all areas but control of the programme is still lacking. The community tends to be hesitant to come to the posyandu to immunise their children because they are worried that their children will have a fever after immunisation, fussiness and lack of knowledge about the importance of immunisation.

Health workers tend to have to play an active role in creating appeals that make people ashamed of the state of their environment and behave positively on their own. One of the efforts that can be made is community empowerment, which is an effort to give people the ability and opportunity to have control over various decisions and actions related to their health. Based on various studies, empowered communities have shown success in improving their health status. The community empowerment activity itself goes through stages. At each stage, the roles of health workers and the community are clearly visible; community recognition, problem recognition, awareness, implementation, evaluation and expansion. These stages show that community empowerment activities do not view the community as an object but at the same time as a subject. In this case, the role of health workers is needed as facilitators and motivators to drive the surrounding community.

Health workers are needed to foster community awareness, one of which is by conducting counselling to convey health messages to individuals, groups or communities so that someone is not only aware, knows and understands but also wants and does health-related recommendations (Depkes RI, 2009). Health messages conveyed by health workers can be in the form of information about good home sanitation and the benefits of having a permanent toilet, with these health messages it is hoped that each individual can increase their knowledge so that they can change their life behaviour for the better and can provide complete basic immunisation to children especially since this immunisation has been subsidised by the government so it is free.

Conclusion

The role of health workers is closely related to the Puskesmas programme involving cadres and community participation currently run by the Sungai Durian Puskesmas. However, monitoring and evaluation of programmes related to the success of *Universal Child Immunization* (UCI) needs to be done to ensure alignment between the implementation of activities and planning, identify

problems as early as possible, and make continuous improvements. In addition, monitoring and evaluation helps assess the effectiveness of the pentavalent immunisation programme in achieving 100% UCI success. Monitoring and evaluation can provide information that plays a role in making better health policies.

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