EMPOWERMENT OF POSYANDU CONTROL IN KNOWING PNEUMONIA SYMPTOMS BEHAVIOR IN WORKING AREAS OF PUBLIC HEALTH CENTER BAKUNASE OF KUPANG CITY, EAST NUSA TENGGARA

Stefanus H. Amuntoda[1)], Pius Weraman[2),] and Muntasir[2)]

[1]Postgraduate Program, [2]Public Health Study Program, Public Health Faculty, Nusa Cendana University Kupang - NTT
E-mail: muntasir@staf.undana.ac.id, munbasrypps@yahoo.com

ABSTRACT

Pneumonia is the second leading cause of death, and is the 10 biggest disease every year in health facilities. This study aims to determine differences in knowledge, attitudes and actions of posyandu cadres about recognizing the symptoms of pneumonia in toddlers before and after implementation of empowerment activities in the form of socialization in the work area of Kupang City Bakunase primary health center in 2018. This research design was quasi experimental with Randomi's approach zed pretest- posttest control group design. The study population was the cadres of posyandu in the Bakunase Primary Health Center in Kupang City. The study sample was 104 samples. Data analysis was carried out by univariate, bivariate with Kolmogorov Smirnov formula and Wilcoxon test with $\alpha = 0.05$. The results of the study there are differences in knowledge, attitudes and actions with p value = 0,000 ($p < \alpha$). It was concluded that there were differences in the intervention group, namely knowledge, attitudes, actions of posyandu cadres in recognizing pneumonia symptoms in infants before and after implementing empowerment activities in the form of training. It is expected that health workers at the Bakunase Primary Health Center can further enhance the empowerment of Posyandu cadres in the form of three months of training so that posyandu cadres have better knowledge, attitudes and actions as an effort to early detection and prevention of pneumonia in infants.

Keywords: empowerment, knowledge, attitude, action, posyandu cadre, pneumonia, toddler

INTRODUCTION

Pneumonia is estimated to have killed around 1.2 million children under the age of five (toddlers) every year, more than AIDS (800,000 children), malaria (300,000 children) and TB. Pneumonia can be caused by viruses, bacteria or fungi. Pneumonia as the main killer of children under five years old, has become a forgotten pandemic, because in every year it can cause high mortality rates (Sugihartono and Nurjazuli, 2012).

Pneumonia is a form of acute respiratory infection that affects the lungs. Pneumonia is still a single leading cause of child death, killing 1 child every 35 seconds (Ankhi. 2017). The high rate of under-five mortality due to pneumonia resulted in the 4th MDGs (Millennium Development Goals) target aimed at reducing child mortality by 2/3 from 1990 to 2014 was not achieved (WHO, 2015). WHO (World Health Organization) estimates that in 2013, there were 935,000 children under five died of pneumonia (WHO, 2014).

Underfive deaths due to pneumonia are mostly caused by severe pneumonia ranging from 7% -13%. Based on the research of Wulandari, et al (2014), stated that people affected by severe pneumonia had a risk of 20,274% experiencing death. In addition pneumonia is more common in developing countries (82%) compared to developed countries (0.05%). According to WHO (2014) pneumonia deaths in Indonesia in 2013 were ranked 8th after India (174,000), Nigeria (121,000), Pakistan (71,000), DRC (48,000), Ethiopia (35,000), China (33,000), Angola (26,000), and Indonesia (22,000).

Pneumonia is the second leading cause of infant mortality in Indonesia after diarrhea. The number of pneumonia patients in Indonesia in 2013 ranged from 23% -27% and deaths due to pneumonia by 1.19% (Ministry of Health RI, 2014).

The increase in pneumonia is influenced by the decline in the target of finding pneumonia from the target achievement (Marlinawati, 2015) which is set in the Strategic Plan (Renstra) which is 50% nationally and 20% districts / cities for the examination and management of pneumonia through IMCI (Integrated Management of Childhood Illnesses). In 2015 the coverage of new pneumonia discoveries reached 16.64%, which is still far from the target of 20% of districts / cities (Ministry of Health RI, 2015).

Dharoh, et al. (2014) showed that the factors associated with the coverage of pneumonia cases found in infants were motivation (p = 0.020). While education (p = 1,000), knowledge (p = 1,000), planning (p = 1,000), implementation (p = 0,292), and assessment (p = 0,567) there was no correlation with the scope of pneumonia cases found in infants.

Based on the latest data released by the Ministry of Health 2015, East Nusa Tenggara Province is included in the top ten estimates of the number of underfive pneumonias with 4.28% of cases (Ministry of Health Profile, 2015).

The Province of East Nusa Tenggara (NTT) contributed most of the cases of Pneumonia with 2,364 children under five who had been found and treated with 8 cases of death and the Case Fatality Rate (CFR) of 0.34% (Indonesian Health Profile, 2015).

From the health profile data of East Nusa Tenggara, the city of Kupang is still a contributor to pneumonia cases with 117 toddlers infected with pneumonia. Kupang City Health Office noted that Bakunase primary health center was ranked third and had an increase in the number of 24 Toddlers with Pneumonia (Kupang City health profile, 2014) to 42 toddlers infected with pneumonia (Puskesmas bakunase, 2016). From these data Pneumonia is still a dangerous disease and has increased infant mortality and morbidity rates.

The city of Kupang itself did not achieve the target of 20% of the discovery of toddlers infected with pneumonia. In 2015 the City of Kupang only reached a target of 3.1% of the 10 Kupang City Health Centers achieving the discovery of Pneumonia was only 3.1%, while the Bakunase primary health center which was a health center contributing to pneumonia under five was still far from the target with 254 pneumonia sufferers but found 42 toddlers or 16.5% of cases (Puskesmas Bakunase, 2016).

The low coverage of the discovery of pneumonia is caused by a lack of Human Resources (Praningrum, 2012) devoted to community resources that have great potential to reduce maternal and child mortality but are not utilized. The following causes are low coverage of the discovery of pneumonia, namely the lack of training in knowledge and behavior (Marlinawati, 2015).

Bakunase Primary Health Center needs to see opportunities for empowering public health cadres in the effort to deal with the symptoms of ARI Pneumonia as an early detection movement. Several studies have shown the role of Posyandu cadre performance is very important in an effort to detect early infant growth and reduce maternal and infant mortality (Susanto, et al, 2017). Subsequent research from Hardyta (2013) shows that cadre knowledge,

training and skills are needed in an effort to detect early pneumonia in infants. Until 2016 health cadres at the Bakunase primary health center were posyandu cadres who had experience with health training and socialization at the posyandu. With the ability of a total of 105 posyandu cadres spread across 36 posyandu, it may help to recognize the symptoms of ARI Pneumonia. Empowerment of posyandu cadres if it helps to detect also prevent pneumonia in toddlers earlier so that wherever possible pneumonia sufferers receive treatment by health workers and do not result in death in children under five. Posyandu cadres also may be able to increase the rate of discovery of pneumonia ARI in infants to 20% or 100% according to the target of the Bakunase primary health center.

Empowerment activities for posyandu cadres can be carried out with skills training, including knowledge, attitudes and actions. Riza and Shobur (2009) showed that there was a significant relationship between knowledge, attitudes and actions on the incidence of pneumonia in infants in IRNA Dr. Mohammad Hoesin Palembang. This is in line with several studies, in Alfaqinisa's research (2015), showed that knowledge p-value = 0.011 (OR = 4.545), attitude p-value = 0.026 (OR = 3.600) and behavior (p = 0.035; OR = 5.333 people parents have a relationship with the rate of recurrence of pneumonia.

Rahim, et al. (2013) also showed that the relationship between knowledge and attitudes of the community or cadres can influence the prevention of pneumonia in children under five, with p-value of successive knowledge (p-value = 0.017), attitude (p-value = 0,000). The results of Sari's (2013) study showed that (53.75%) had less knowledge about the treatment of pneumonia at home. With this knowledge, attitudes and actions that are lacking from the community and cadres will affect the incidence of pneumonia which leads to increased rates of pneumonia, pneumonia and death.

Based on the results of the preliminary study conducted in August 2017 at the Bakunase primary health center in posyandu activities, 10 active cadres were interviewed

about the symptoms of Pneumonia in children under five, there were cadres who had less than 7 people with knowledge, attitude, and actions, and had enough abilities of 3 person. This shows that there is still a lack of knowledge and attitudes, as well as the actions of cadres in recognizing the symptoms of pneumonia in toddlers. The purpose of this study was to determine differences in knowledge, attitudes and actions of posyandu cadres after participating in empowerment activities in the form of training activities in the Bakunase primary health center work area.

METHODOLOGIES

The design of this study was quasi experimental with Randomized pretest-posttest control group design approach by giving pre and post test. The study population was the cadres of the Kupang City Bakunase primary health center posyandu. The study sample consisted of 104 cadres with 52 experimental groups who would take part in training activities and 52 control groups. The location of the study is the work area of the Bakunase primary health center. The time of the research was carried out in March 2018-June 2018.

The variables in this study consisted of two variables, namely the independent variable and the dependent variable. The independent variables in this study are Knowledge, Attitude, Action, while the dependent variable is the ability to recognize the symptoms of pneumonia. Data analysis was carried out by univariate, bivariate with Kolmogorov Smirnov formula and Wilcoxon test with $\alpha = 0.05$.

RESULTS AND DISCUSS

1. Knowledge

Knowledge	The Experiment Group				
	Pre		Post		
	Amount	%	Amount	%	P Value
Less	38	73,1	4	7,7	0,00
Enough	9	17,3	8	15,4	
Good	5	9,6	40	76,9	
Total	52	100	52	100	

The empowerment of the community through health workers is expected to help decrease the occurrence of pneumonia in children under five years old. The health workers need to be given the training about the management of children with cough and breathing difficulties to improve their knowledge, attitude and skills (Khayati, FN, 2015).

Based on the results of bivariate analysis to determine differences in the level of knowledge of cadres in recognizing the symptoms of pneumonia using the Wilcoxon test results obtained p value of 0.087 (control group) and p value = 0.00 (Experimental Group). With the results of the experimental group p-value <0.05, Ho is rejected and Ha is accepted, meaning that for the experimental group there is a significant difference between the knowledge of pre test and post test knowledge. With a significant difference, there was an effect of training on increasing the knowledge of posyandu cadres in the introduction of pneumonia under five after training.

The results of this study are in line with the previous research conducted by Hutasoit, et al (2017) showed that p value was obtained at 0.001 meaning that the value of p <α (0.05). It was proved that mothers of toddlers who received health education had better knowledge than the control group. In Hutosoit also explained that health education significantly improved the knowledge of mothers of toddlers against the prevention and treatment of pneumonia in India with a value of p <0.001. Further research from Riza, et al (2009) states that there is a relationship between knowledge with the level of

prevention of underfive pneumonia with Pvalue = 0.043, where P <0.05. Riza, et al (2009) stated that the higher the knowledge, the lower the incidence of pneumonia, and vice versa if someone has low knowledge about pneumonia, the incidence of pneumonia will be higher. Likewise in this study, the level of knowledge of posyandu cadres is influenced by training activities and with good knowledge will be able to prevent and handle symptoms of pneumonia in infants.

According to Notoatmodjo (2003) knowledge is what is known by someone about something that is obtained formally or informally. According to Lawrence Green's theory explains that knowledge is the initial factor of a behavior. Based on the level of knowing, understanding, applying, analyzing, synthesizing, and evaluating which will influence the health behavior that is carried out. So that increased knowledge has a positive relationship with the behavior of recognizing and preventing recurrence of pneumonia. Thus proving that the empowerment of cadres through effective training to increase cadre knowledge about recognizing the symptoms of pneumonia.

2. Attitude

Attitude	The Experiment Group				
	Pre		Post		P Value
	Amount	%	Amount	%	
Less	40	76,9	4	7,7	0,00
Enough	7	13,5	11	21,2	
Good	5	9,6	37	71,2	
Total	52	100	52	100	

Based on bivariate analysis to determine differences in cadre attitudes in recognizing pneumonia symptoms using the Wilcoxon test results obtained p value of 0.928 (control group) and p value = 0.00 (Experimental Group). With the results of the experimental group p-value <0.05, Ho is rejected and Ha is accepted, meaning that for the experimental group there is a significant difference between the attitude of the pre test and post test. With a

significant difference, there was an effect of training on increasing the support of posyandu cadres in the introduction and prevention of pneumonia under five after training.

The results of this study are in line with the research conducted by Alfaqinisa (2015) the relationship between the level of knowledge, attitudes, and behavior of parents about pneumonia, with the recurrence rate of pneumonia in children under five in the Puskesmas Ngesrep city of Semarang that states the attitude of parents with recurrence of pneumonia in toddlers using Chi-Square obtained a p-value of 0.026 (OR = 3.600; 95% CI = 1.142-11.3346). Because the p-value is <0.05, Ho is rejected and Ha is accepted, meaning that there is a significant relationship between the attitudes of parents who have received health information and the rate of recurrence of pneumonia in toddlers.

Sutangi's (2014) studied of the relationship between knowledge and attitudes of mothers who received information and health counseling with the incidence of pneumonia of children under five in the bay village uptd area of plumbon health center in Indramayu subdistrict, Indramayu regency also found a significant relationship between maternal attitudes after obtaining information or health education by reducing incidence of pneumonia. The results of this study do not contradict Kartini's (2002) research, which states that the better the mother's attitude towards the health of a child, it will reduce the risk of pneumonia in children under five. And vice versa if the worse the mother's attitude towards the health of her child, then the risk of pneumonia in toddlers will be higher. Likewise in this study, the good attitude of posyandu cadres can reduce the incidence of pneumonia in infants.

Attitude has not been an act or activity, but it still predisposes to an act of behavior. A person's attitude will influence health behavior, a person's positive attitude will produce positive health behaviors as well. While negative traits will also produce negative behavioral attitudes. A positive attitude is an attitude that is in accordance with prevailing health values, while a negative attitude is an attitude that is not in accordance with the prevailing health

values. The positive attitude here is that the respondent is right in behaving about what things should be done when there is a sick toddler and how to prevent it. The positive attitude of the respondents is probably due to the experience of many respondents and the formation of good attitudes so that it gives birth to a good mindset, as well as good beliefs and emotions (Notoatmodjo, 2003). Positive attitude of posyandu cadres means having understanding, knowing visible symptoms, risk factors and effects of pneumonia so that early detection and prevention of pneumonia can be carried out on toddlers. Thus proving that the empowerment of cadres through training is effective to improve cadre attitudes about recognizing the symptoms of toddler pneumonia.

3. Actions

Actions	the Experiment Group				
	Pre		Post		
	Amount	%	Amount	%	P Value
Cannot Do	39	75,0	4	7,7	
Can do	13	25,0	48	92,3	0,00
Total	52	100	52	100	

Based on bivariate analysis to determine the differences in cadre actions in recognizing pneumonia symptoms using the Wilcoxon test, the p value was 0.63 (control group) and p value = 0.00 (Experimental Group). With the results of the experimental group p-value <0.05, Ho is rejected and Ha is accepted, meaning that for the experimental group there is a significant difference between the pre-test and post-test actions. With a significant difference, it was shown that there was an influence of training on increasing the actions of posyandu cadres in the introduction of pneumonia under five after training.

The difference in the results of the course of course because of getting a lot of intervention, especially the training conducted by posyandu cadres and according to Nofitasari et al. (2015) there was a significant relationship between knowledge of under-five

mothers after receiving training with pneumonia prevention measures on children under five by chi-square test p = 0.011 (p <0.005). The results of this study are in line with the research of Marlina, et al. (2012): Through statistical tests it was found that the p-value 0.003 <0.05 there was a significant relationship between the actions of the nurses after attending the health education stage with efforts to prevent pneumonia in bed rest patients in the Inpatient Room Class III Regional General Hospital dr. Zainoel Abidin Banda Aceh. Acting nurses who follow the stages of health education have a relationship to prevent pneumonia. Another study came from Riza, et al (2009) which revealed a significant relationship between maternal actions and prevention of pneumonia with the results of statistical tests Pv = 0.027, where P <0.027. This study states that the better the mother's actions in daily activities, the lower the incidence of pneumonia suffered by toddlers and their family members and if the worse the mother's actions in daily activities, the higher the risk of pneumonia or the higher the risk pain that may occur both in infants and their family members. Likewise, what happened in this study was that the cadre's actions after following the training stage were able to prevent the occurrence of pneumonia in toddlers.

Action or behavior is the realization of knowledge and attitude of a real action. Actions are also a person's response to stimuli in real or open form (Notoatmodjo, 2003). In relation to health explained that this action includes: prevention of disease and healing of diseases. Changes in behavior or new actions that occur through the stages or the process of change, namely knowledge, attitudes and actions, meaning that if knowledge is good and positive attitude automatically someone's actions will certainly be good. The actions referred to in the study are how to respond, check, prevent disease, and cure pneumonia which then affects the actions of posyandu cadres in recognizing pneumonia symptoms after attending special training in knowledge and attitudes. Thus proving that the empowerment of posyandu

cadres through effective training to improve the action of responding, examining, and preventing pneumonia.

CONCLUSION

1. There is a difference in the knowledge of posyandu cadres about recognizing the symptoms of pneumonia in infants before and after being given training.
2. There are differences in the attitude of posyandu cadres about recognizing the symptoms of pneumonia in toddlers before and after training.
3. There are differences in the posyandu cadre's actions about recognizing the symptoms of pneumonia in toddlers before and after training.

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