



## The Analysis of Knowledge to the Skill of Health Cadres in Carrying Out the Early Detection of Pneumonia in Sick Children in the Working Area of Public Health Centre, Belimbing Padang City

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**ABSTRACT:** Under-five year children death in Indonesia due to pneumonia are 32 per 1000 live birth. Data in 2018 in West Sumatra, the prevalence of ISPA was 5%, pneumonia rose to 2.5%, in the city of Padang in 2018, the number of pneumonia sufferers were 3,196 under-five year children (3.91 %). In public Health Center, Belimbing the cases of respiratory tract infection is ranked first among the ten most common diseases (53%). The aim of the research is to analyze the knowledge to the skill of cadres regarding the early detection of pneumonia in under five year children. This research design is a cross-sectional study. The population in this research were 55 respondents. Data collection used questionnaires and observation sheets. Data processing was used by editing, coding, entering and cleaning. Univariate analysis was made in frequency distribution in percentages, and bivariate analysis used the Chi square test (CI 95%). The research results showed that there is a relationship between knowledge to health cadres's skill, with p-value (0.004). It is hoped that cooperation will continue the program for sustainability and conduct continuous evaluation to reduce pneumonia.

**KEYWORDS:** Cadres, Knowledge, Pneumonia, Public Health Centre, Skill.

### INTRODUCTION

World Health Organization (WHO) in 2015 showed that in one year the number of under-five year children deaths due to pneumonia in the world are 5.9 million. Indonesia is the ninth number of 15 countries in the world that contribute the under-five year children deaths due to pneumonia with the mortality rate of 32 per 1000 live births. This condition showed that 2-3 children die every hour due to pneumonia. Various treatment efforts for pneumonia sufferers have been carried out at community health centers. The target for eradicating pneumonia set by the government has not been realized optimally and has not been implemented in a comprehensive, integrated and sustainable manner. Treating pneumonia is not enough with curative efforts to reduce the possibility of increasing the potential for pneumonia in children under five, active prevention efforts are needed (Ministry of Health, 2020).

Data (Basic Health Research) in 2018 showed that in West Sumatra the prevalence rate for infection of respiratory tract was 5%, the prevalence rate for pneumonia rose to 2.5%, previously 1% in 2013. According to the Padang City Health Service (2018), the number of children under five year, the estimated number of pneumonia sufferers was 3,196 with a percentage of 3.91%, while the number of sufferers found and treated was 2,719 (85.08%), at Belimbing Public Health Center, infection of respiratory tract is ranked first among the ten most common diseases (53%).

Implementation of the respiratory tract infection disease eradication program requires support from all parties and the active role of the community, including health cadres. The research results of Tisnawati and Ilda (2019) stated that there was an influence of using MTBS-M reading card media on skills with a value of  $p=0.016$  ( $p<0.05$ ), meaning that there was a significant difference before and after in the intervention group and the control group. Training is an effort to achieve this. Several types of training that can be carried out including the training of trainers (TOT), training for health workers (Ministry of Health, 2011).

Cadres as an extension of the community health center have enormous potential role, because cadres are very close (from a geographic and social perspective) to the community in their own area. One thing that cadres can do is to disseminate information using effective outreach techniques to mothers and families. However, this activity cannot be fully carried out due to



limited supporting materials and the lack of skills of cadres in carrying out efforts to prevent the respiratory tract infection/Pneumonia. So it is hoped that cadres can do this for families of toddlers independently.

The skills of cadres in Belimbing public health center are still limited in conveying information about respiratory tract infection/Pneumonia. In terms of preventing respiratory tract infection/Pneumonia, the community really needs it, so that babies and children are free from severe pneumonia. Cadres need to know and observe signs of early complaints of pneumonia and when to seek help and referral to the health service system so that their toddler's illness does not become more serious. Based on this, it can be clearly interpreted that the role of cadres in the respiratory tract infection prevention practices is very important, because if family level disease prevention practices are deficient/poor, it will affect the course of the disease from mild to more severe. This causes the child's health status to decline, disrupts the child's growth and development, and also causes anxiety in the mother about her child's health. This includes providing information to the public regarding immunization programs, nutrition and others. However, this program still faces obstacles, namely: the large target area, the limited number of personnel, and the difference in activity time between the community health center and the community.

Based on the background above, the pediatric nursing lecturer made plans to carry out research activities in the working area of Belimbing public Health Center by empowering the community's potential and independence as well as providing health education and several interventions to increase cadres' knowledge about early detection of pneumonia.

## RESEARCH METHODS

This type of research is observational with a cross sectional design. The research was conducted in the working area of public health center Belimbingr, Padang City in 2022. The research population was 55 cadres. Cadres who had signed informed consent and agreed to take part in training activities. Researchers distributed questionnaires on knowledge and observation skills of cadres regarding early detection of pneumonia in sick toddlers, collecting data using questionnaires and observation sheets, processing data using editing, coding, entry and cleaning. Univariate data analysis to see the frequency distribution in percentage form, bivariate analysis using the Chi square test (CI 95%) analysis results are significant if the p value is  $\leq 0.05$ .

## RESEARCH RESULT

### Respondent Characteristics

**Table 1. Frequency Distribution of Respondent based on Characteristics in the Working Area of the Public Health Center Belimbing , Padang City**

Variabel	f	%
<b>Job</b>		
Yes	14	25.5
No	41	74.5
<b>Education</b>		
Elementary	1	1.8
Junior High School	8	14.5
Sunior High School	32	58.2
University	14	25.5
<b>Age</b>		
40-50 yeras	8	14.5
More 50 years	47	85.5
<b>TOTAL</b>	<b>55</b>	<b>100</b>

From Table 1 above, it can be seen that in the occupational group, most of the respondents are not working, namely 41 people (74.5%). Most of the education level are high school, namely 32 people (58.2%), 85.5% aged over 50 years.



**Univariate Analysis**

**Table 2. Frequency Distribution of Respondents According to Level of Knowledge in Public Health Center Belimbing , Padang City**

Knowledge	f	%
Low	35	63.6
High	20	36.4
<b>Total</b>	<b>55</b>	<b>100</b>

Based on table 2, it is known that the majority of respondents had sufficient knowledge, 35 people (63.6%).

**Table 3. Frequency Distribution of Respondents According to Pneumonia Detection Skills in the Public Health Center, Belimbing Padang City**

Skill	F	%
Low	32	58.2
High	23	41.8
<b>Total</b>	<b>55</b>	<b>100</b>

Based on table 3, it is known that the majority of respondents had low skill at detecting pneumonia, 32 people (58.2%).

**Bivariate Analysis**

**Table 4. Frequency Distribution of Respondents According to Knowledge and Skills in Early Detection of Pneumonia in the Belimbing Community Health Center Area, Padang City**

Knowledge	Skill on early detection of pneumonia				Total		P Value
	Low		High		f	%	
	f	%	f	%			
Low	30	85.7	5	14.3	35	100	0,004
High	9	45.0	11	55.0	20	100	
<b>Total</b>	39	70.9	16	29.1	55	100	

Based on table 4, it can be seen that poor skills tend to occur in respondents who have sufficient knowledge (85.7%). The Chi Square statistical test results obtained a value of  $p = 0.004$  ( $P < 0.05$ ), so it can be concluded that there is a significant relationship between knowledge and skills in early detection of pneumonia in children in the working area of the Belimbing Public Health Center, Padang City.

**DISCUSSION**

Bivariate results show that poor skills tend to occur in respondents who have sufficient knowledge (85.7%). The results of the Chi Square statistical test obtained a value of  $p = 0.004$  ( $P < 0.05$ ).

At the Public Health Center, cadres have been given material on the application of methods using the modified MTBS-M module, namely a learning method with problem solving which focuses on the problem as the core of the discussion to be analyzed in an effort to find alternative solutions to problems in the context of detecting pneumonia at home, with independent learning experiences. Problem-based learning is a learning method in which participants are faced with a problem from the start, then followed by an information search process that is student-centered learning (Harsono, 2004).



Considering that the role of cadres is more about capturing respiratory tract infection/Pneumonia cases, more effective training is needed, the aim is to increase knowledge and maintain knowledge for longer, because knowledge or cognition is a very important domain for shaping a person's actions. Behavior that is based on knowledge, awareness and a positive attitude means that the action will be long lasting or vice versa (Notoatmodjo, 2013).

Learning applications using the modified MTBS-M module were developed to help participants develop thinking abilities, various problem solving and intellectual skills, learn about sharing adult roles through their involvement in real or simulated experiences, and become autonomous and independent learning, so that in this way skills will increase. Therefore, learning should also focus on increasing understanding of various contexts for cadres to learn how to think critically and problem solving skills, as well as to obtain essential knowledge and concepts from the material presented.

The knowledge and skills of cadres are higher because participants have more freedom to independently seek alternative solutions to problems by developing the ability to think creatively and comprehensively and it is possible to develop material as fully as possible in accordance with the teaching material that has been provided. Cadres are required to think twice, namely thinking about how to develop a train of thought in written form and thinking to look for themes and sub-themes as alternative solutions to problems. Over time, cadres experience boredom and end up making something uninteresting, and more easy to forget and not lasting (Ewles LT & Simnett .I, 1994).

## CONCLUSIONS AND SUGGESTIONS

There is a significant relationship between cadre knowledge and early detection skills for pneumonia in toddlers in the working area of Public Health Center Belimbing Padang City. It is hoped that cooperation will continue the program for sustainability and conduct continuous evaluation to reduce pneumonia. Suggestions to the Community Health Center are expected so that officers can increase education about respiratory tract infection/Pneumonia and also provide refreshers to cadres about respiratory tract infection/Pneumonia on a regular basis.

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*Cite this Article: Tisnawati, Suhaimi, Murniati Muchtar, Delima, Herwati (2024). The Analysis of Knowledge to the Skill of Health Cadres in Carrying Out the Early Detection of Pneumonia in Sick Children in the Working Area of Public Health Centre, Belimbing Padang City. International Journal of Current Science Research and Review, 7(11), 8349-8352, DOI: <https://doi.org/10.47191/ijcsrr/V7-i11-21>*