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Factors Related to The Performance of Tuberculosis Program Officers in Case Detection Rate at Community Health Center in Banjar Regency

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A B S T R A C T

The CDR target of the National Tuberculosis Control Program is 100%. In 2015, the incident rate as the basis for setting the case detection rate (CDR) target was 107 per 100,000 population, while in 2016, it jumped sharply 398 per 100,000 population. The incidence of tuberculosis in South Kalimantan in 2017 was 245 cases per 100,000 population, while in South Kalimantan, the CDR in 2018 was 54.5%. Based on data from the Banjar Regency Health Office, the number of TB cases in Banjar Regency in 2017 was 1,064 cases, while in 2016, there were 1,099 cases. In 2017, CDR is still below the national target of 42.79%. This study aims to analyze the factors of the level of education, training and workload of tuberculosis program officers who are related to the CDR at Community Health Center in the Banjar Regency. This research is a quantitative study using an analytic observational method with a cross-sectional study design. The number of samples in this study was 62 people with a proportional random sampling technique. The results of the study indicate there is a relationship between workload (p=0.034) with the performance of tuberculosis program officers in the CDR. There is no relationship between education level (p=0.258), training (p=0.094) with the performance of tuberculosis program officers in the CDR. In contrast, the dominant factor related to the performance of tuberculosis program officers in the CDR was workload (p=0.034).

Keywords: education level, training, workload, work performance, tuberculosis program officers, case detection rate

INTRODUCTION

Tuberculosis (TB) is a contagious infectious disease caused by the bacterium Mycobacterium tuberculosis and can attack organs, especially the lungs. This disease if not treated seriously or treatment, is not done thoroughly, can cause dangerous complications until death. TB is estimated to have existed in the world since 5000 years before the masses, but progress in the discovery and control of TB disease has only occurred in the last two centuries (Ministry of Health Republic of Indonesia, 2016). Tuberculosis has become one of the diseases whose control has become a global commitment (Ministry of Health Republic of Indonesia, 2011).

TB control program that has been recommended by the World Health Organization (WHO) and has been implemented in Indonesia since 1995, namely the DOTS (Directly Observed Treatment Shortcourse) strategy. The DOTS strategy is the single most cost-effective TB control strategy in Indonesia, and community health centers are at the forefront of its implementation. In the implementation of TB control efforts with the DOTS strategy, some progress has been made, including increasing TB service coverage, finding TB cases and increasing rates of TB treatment recovery (Kemenkes RI, 2011). In the national tuberculosis control program, one of the indicators used is the Case Detection Rate (CDR) or can be called the number of new case discoveries, the proportion of all new tuberculosis cases found and treated compared to the estimated number of tuberculosis cases in an area (Pusdatin 2018).

The CDR target of the National Tuberculosis Control Program is 100%. In 2015, the incident rate as the basis for setting the CDR target was stated at 107 per 100,000 population, while in 2016, it jumped very sharply 398 per 100,000 population. For incidents of tuberculosis in South Kalimantan in 2017 was 245 cases per 100,000 population, while the CDR in South Kalimantan in 2018 amounted to 54.5% (South Kalimantan Health Office, 2019). Inhibiting the low CDR is human resources. One of the main elements needed in the successful control of the TB program is the tuberculosis program officer in the health service who can regulate and coordinate the discovery of suspects and determination of tuberculosis as well as tuberculosis program officers in community health centers having an important role in the process of implementing the Tuberculosis Prevention and Control Program (P2TB) (Ministry of Health RI, 2011). Because if the CDR is still low where the estimated cases (prevalence) in an area with a high case, it means that many cases of tuberculosis have not been detected, and this results in the uninterrupted transmission of tuberculosis disease in the region.

Many factors are associated with CDR in Banjar Regency, one of which is the performance of TB program officers (Nizar, 2010). Based on data from the Banjar Regency Health Office, the number of TB cases in Banjar Regency in 2017 was 1,064 cases, whereas in 2016, there were 1,099 cases, from this figure a decline in CDR occurred. In 2017 CDR is still below the national target of 42.79%, while the national target is 70%.

Based on the theory and reality above, the problem is the low CDR in Banjar Regency. The problem is caused by many factors which include the level of education, training and workload, which can cause low performance. From the results of data obtained from TB program officers at the Banjar Regency Disease Prevention and Control (P2P), Section of Prevention and Control of Infectious Diseases (P2PM) in 2017 of some 24 health centers in Banjar Regency, there are some problems obtained on TB program officers in community health centers which are still not optimal. As the discovery of a case of less than 2016, the level of education TB program officers, there are already training with TB or who have not participated in the training of tuberculosis, in addition to the performance of TB health centers program leaders are low can also be caused because all program managers have more workload than TB program officer. There are several community health center program managers who feel they are not laboratory workers. One person in charge of the program said that after TB suspects were known in their working area, they did not come/pick up the patient's snowball just waiting for the patient to come to the community health center (Data of Banjar Regency Health Profile 2017).

METHOD

Type of research is quantitative research using observational methods with data collection time approaches using a cross-sectional design. The location where the study was conducted was the community health center in the Banjar Regency Health Office area. The population used in this study were tuberculosis program officers in 12 health centers in the Banjar Regency Health Office area with the highest, middle and lowest tuberculosis CDR. The number of samples was 62 respondents. The variables used in this study are the level of education, training, and workload as independent variables and the performance variable of tuberculosis program personnel in the CDR at the Banjar Regency Community Health Center as the dependent variable.

RESULT

Table 1. Frequency Distribution of Respondents

Variable	Category	Frequency	Percentage
Age	20-30 years old	24	38.71
	31-40 years old	25	40.32
	41-50 years old	13	20.97
Education	Vocational School	1	1.61
	Diploma III	31	50.00
	Diploma IV	1	1.61
	Bachelor	29	46.77
Marital status	Single	7	11.29
	Married	55	88.71
Gender	Male	19	30.65
	Female	43	69.35
Workload	≤ 3 years	17	27.42
	4 - 6 years	7	11.29
	7-10 years	20	32.26
	> 10 years	18	29.03

Table 2. Bivariate Analysis

Variable	The Performance		Total	p-value
	Less	Well		
Education				
Intermediate	1	0	1	0.258
High	15	46	61	
Training				
Not standardized	9	15	24	0.094
Standardized	7	31	38	
Workload				
Low	7	8	15	0.034
High	9	38	47	

Table 3. Multivariate Analysis Results

Variable	B	SE	Sig.	Exp (B)	95% CI	
					Lower	Upper
Training	0.930	0.615	0.131	2.534	0.759	8.463
Workload	-1.265	0.652	0.052	0.282	0.079	1.013
Constant	1.244	1.300	0.339	3.469		

DISCUSSION

Based on table 2, it shows that out of 62 tuberculosis program officers (100%) who have secondary education (high school/equivalent) and perform well have a percentage of 0%. Meanwhile, tuberculosis program officers who have a high level of education (Diploma III, Diploma IV/Bachelor, and Master) and perform well have a percentage of 75.4%. In addition, there is one officer who has a secondary education level (high school/equivalent) with less performance (100%). This is because 1 of the officers did not know about the tuberculosis program because they had an educational background that was not too focused on the tuberculosis control program. Whereas for officers who have a high level of education but underperforming as many as 15 officers (24.6%). This is because, although the officer as a whole has a good level of education, he still does not know about the purpose of tuberculosis control itself because he rarely participates in meetings related to tuberculosis control and most of the officers will only get and read manuals/technical instructions only.

Based on the fisher's exact test results obtained, a p-value of 0.258 (>0.05) is accepted. Thus, it can be concluded that there is no relationship between the level of education and the performance of the tuberculosis program officer in CDR. The results of this study are in line with research conducted by Ratnasari (2015) that the level of education is not related to the achievement of officers on the CDR in the pulmonary TB program in Rembang Regency because having a high level of education is not a guarantee of producing a satisfying performance.

Based on the results of the analysis above, it shows that the tuberculosis program officers who attended the training, the good performance standards had a percentage value of 83.3%. Meanwhile, the tuberculosis program officers who took part in the training did not meet the standard of performing well with a percentage of 81.6%. Based on table 2 above, it is known that there are 9 officers who participated in the training that did not meet the underperforming standards (37.5%). This is because, training is carried out with the aim of increasing the ability and special skills of a person so that performance improves, but if the training that is followed does not meet the standards then the goal of the training will be difficult to achieve. Meanwhile, there were 7 officers who attended the training meeting the standards but underperforming (18.4%). This is because, the officer has training that meets the standards, but the implementation process of the training that has been followed is not optimal so that there are still officers who attend the training meeting the standards but have poor performance.

Based on the results of statistical tests using the chi-square test obtained p-value of 0.094 (>0.05) means accepted. So, it can be concluded that there is no relationship between training and the performance of tuberculosis program officers in the CDR. This study is in line with the research of Parera and Talarima (2016), which states that there is no relationship between training and TB officers skills where p=0.129. It can be concluded that there is no relationship between training and TB officers performance. Based on table 2 above, it shows that the tuberculosis program officer who has a high workload performing well (53.3%). Meanwhile, tuberculosis program officers who have low workloads and perform well have a percentage value of 80.9%. Officers who have high workloads with low performance of 46.7% appear to have a significant relationship to the performance of officers who have high workloads.

Based on the results of statistical tests using the chi-square obtained p-value of 0.034 (<0.05) means rejected. So, it can be concluded that there is a relationship between workload and the performance of tuberculosis program officer in the CDR. The results of this study are in line with the research conducted by Latifah et al. (2018) showing that there is a relationship between workload (dual-task) and the performance of TB program officers in community health center in increasing the discovery of new AFB smear-positive cases in Semarang Regency. The research results show a p-value of 0.014 which means that there is indeed a relationship between workload and performance.

Based on the results of multiple logistic regression tests in table 3, the independent variables included in the model are the training and workload variables. The analysis results obtained the value of Exp (B) of the training variable of 2.534 which means that training has a relationship of 25 times the performance of tuberculosis officers in the CDR and the value of beta estimates of 0.930 so that training has a positive influence on the performance of tuberculosis program officer in the CDR. Workload variables get the result that the value of Exp (B) is 0.282 even though it is a small number. However, workload also has a relationship with the performance of the tuberculosis program officer in the CDR. While the value of Beta is -1.265, which means that the workload has a negative effect on the performance of tuberculosis program officers in the CDR.

CONCLUSION

Factors that are not related to the performance of tuberculosis program officers in CDR are the level of education and training. The factors related to the performance of tuberculosis program officers in the CDR are workload. Among the three variables, the workload was the most dominant related to the performance of the tuberculosis program officer in the CDR.

There is significant relationship between SDHP' promotive and preventive activities with the dental and oral health status of elementary school student in chosen journals with combined effect size value in promotive activities of 2,121; [95% Cl : 1,508-2,982, Z=4,325, p=0,000]; and in preventive activities of 1,898; [95% Cl : 1,617-2,228, Z=7,830, p=0,000].

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