Implementation of Active Case Finding Tuberculosis by Tb Officers Throughout All of The Puskesmas Towards the Achievements of New Tb Case Findings in Daerah Istimewa Yogyakarta

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Abstract
Background:Tuberculosa (TB) is a problem in developing countries because the rate of disease incidence is still high and is the 10th leading cause of death in the world. As TB prevalence cases increase, community participation in finding new TB cases is increasingly important. The method used by various countries is by community-based case finding or active case finding in the community (active case finding). Objective: Evaluating the implementation of the program in the discovery of new TB cases by TB officers at the health center in an effort to control TB in DIY Method:This type of research is a basic survey. Subjects of Puskesmas staff in Yogyakarta are 121 people. The sampling technique was random sampling. The instrument used was a questionnaire containing knowledge, behavior, and types of activities. The analysis uses frequency distribution and is presented in tabular form. Result: Puskesmas DIY staff have taken several steps in carrying out new TB case finding in the community, such as Active Case Finding, Pasive Case Finding, knock on doors, counseling, screening and screening. The level of knowledge of puskesmas officers related to the implementation of Active Case Finding is sufficient. There are obstacles in the implementation of new TB case finding, among others, time and lack of personnel, budgetary factors, and some areas that do not yet have cadres. Conclusion: Implementation of the discovery of new TB cases in DIY has not been reached to the maximum
Keywords: active case finding, TB Officers, community health centers, Tuberculosis

1. Background

Tuberculosis is infectious disease which caused by Mycobacterium tuberculosis (1). Tuberculosis is a global problem in the world, and the high number of people with Tuberculosis (TB) is a problem in developing countries because the incidence rate of the disease is still high (2). WHO targets to find all missing TB cases, or undetected TB cases by 2030 using The End TB Strategy and SDG's. Achieving these targets requires intensive activities to increase the detection of TB cases, especially in groups that are difficult to reach (3). So far, Indonesia has conducted a survey system in 2013-2014 by confirming the number affected by the acid-fast bacteria, with the results of 759 per 100,000 population especially in the age group 15 years and over. Besides, there is a TB prevalence of 297 per 100,000 also in the age group. 15 years more (4).
The number of new TB cases is still high, and the prevalence of TB cases is also high, so then the community's participation to finding new TB cases is very important. The discovery of new cases can be carried out passively and actively by the community as well as by TB program holders in public health center (here also known as Puskesmas or Pusat Kesehatan Masyarakat). Unfortunately, the gap between Case Detection Rate (CDR) and Rate Mash notifications is currently still high. Therefore, it is necessary to take action to see directly how the pattern of implementing TB control programs is through accurate data from TB health center officers in the implementation of Active Case Finding (ACF) TB (5) .
In general, ACF is implemented with special management organized by health care providers. ACF's main targets are high-risk groups who may have difficulty accessing health services. The application of ACF is able to provide potential benefits such as reducing morbidity, mortality, and preventing economic consequences with the application of early diagnosis. However, if the ACF is implemented without clear targets and does not use an integrated method, it can result in costly budget expenditures and the potential for diversion and wasting of scarce resources, potentially undermining passive case-finding infrastructure and health systems. Thus, this study was conducted to measure the readiness of TB officers from public health center throughout the implementation of ACF in their working areas, as well as to reveal the obstacles that occur in the field and the solutions that can be applied.

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2. Methods

This research is a basic quantitative survey with a cross-sectional approach. The subjects used were 120 TB officers throughout all of Puskesmas in Special Region of Yogyakarta or Daerah Istimewa Yogyakarta (DIY), the sample was selected using random sampling. The measurement instrument used a questionnaire containing case finding methods, knowledge, behavior, case finding constraints, types of activities, and the main tasks of TB officers at the puskesmas. The analysis was carried out using the frequency distribution in tabular form.

3. Result

The majority of TB officers in the DIY Province are officers aged > 40 years. From these data, it can be seen that the city of Yogyakarta has the highest percentage of 67% with 12 officers. Respondents with education level, indicate that the 3rd Diploma education level occupies the highest percentage with Sleman Regency as much as 88%. The majority of the time being a nurse at a puskesmas in DIY Province is more than 20 years. The length of time being a TB officer in the majority of district/city health centers is 1-5 years. The main task of the majority of TB officers from all districts is a nurse. The city of Yogyakarta has 94% of officers who are nurses.

The Way to Find TB Cases by TB Officers in Puskesmas

TB Officers perform several ways in an effort to find TB cases, like knocking on doors, counseling, screening, collaboration with health cadres, district heads and hamlet heads.

TB Officers' TB Knowledge

City	Good		Enough		Lack	
	F	%	F	%	F	%
Sleman	3	2,5	22	18,3	0	0,0
Kulon Progo	6	5,0	13	10,8	1	0,8
Kota Yogyakarta	2	1,7	14	11,7	2	1,7
Bantul	4	3,3	19	15,8	4	3,3
Gunungkidul	5	4,2	20	16,7	5	4,2
Total	20	16,7	88	73,3	12	10

The level knowledge of TB officers about Active Case Finding TB in the province of DIY is mostly sufficient as much as 88% with Sleman Regency being ranked first as much as 18.3%.

Compliance TB Officer's Behavior

City	Appropiate		Not Appropiate	
	Frequency	%	Frequency	%
Sleman	15	12,5	10	8,3
Kulon Progo	12	10,0	8	6,7
Kota Yogyakarta	11	9,2	7	5,8
Bantul	14	11,7	13	10,8
Gunungkidul	20	16,7	10	8,3
Total	72	60,0	48	40,0

Based on the table above, it can be seen that TB officers in Gunungkidul Regency have a higher percentage of appropriate behavior than other regions.

Obstacles of TB Officers in Puskesmas to Find the New TB Cases

More than 50% of the surveys obtained, the obstacles for TB officers to find new TB cases are lack of time management and lack of manpower, double task load, budgetary factors, and some areas do not yet have cadres.

Types of Activities of TB Officers to Discover the New TB Cases

City	Appropiate		Not Appropiate	
	F	%	F	%
Sleman	13	10,8	12	10,0
Kulon Progo	15	12,5	5	4,2
Kota Yogyakarta	10	8,3	8	6,7
Bantul	21	17,5	6	5,0
Gunungkidul	23	19,2	7	5,8
Total	82	68,3	38	31,7

The table above shows the types of activities of TB officers on the implementation of Active Case Finding in DIY Province, majority using appropiate way (68.3%). Bantul Regency has conducted screening with the appropriate types of activities as much as (19.2%).

The Main task of TB officers Who Involved in Finding New TB Cases

City	Nurse	Midwife	Sanitarian
Sleman	25	0	0
Kulon Progo	20	0	0
Kota Yogyakarta	18	0	0
Bantul	23	0	4
Gunungkidul	27	1	2
Jumlah	113	1	6

As many as 90% of the survey results show that the main task of TB officers who are involved in finding new TB cases is a nurse who get double task as a TB officer.

Achievement of New TB Case Finding in 2019

Kabupaten	Achieved		NotAchieved	
	Frequency	%	Frequency	%
Sleman	799	14,0	1015	17,8
KulonProgo	199	3,5	393	6,9
Kota Yogyakarta	728	12,7	123	2,2
Bantul	744	13,0	788	13,8
Gunungkidul	288	5,0	634	11,1
Total	2758	48,3	2953	51,7

Based on the data above, it can be interpreted that the Yogyakarta City has the highest result in the discovery of new TB cases by 85.5%.

4. Discussion

TB officers at the Puskesmas finding new TB cases in the community through counseling, door to door to the community, through PIS-PK activities, as well as

involving cadres and district heads in discovering the suspects. In this case, community involvement has been carried out although it is still not optimal. This could be due to a lack of communication between health workers and local community cadres/leaders, considering that cadres and community leaders have a special role that can be included in the social determinants of health in the community. Cadres, community leaders, and other influential groups can contribute greatly to improving the health status of the community (6). The situation in the community shows that there is a lot of potential of the local community that can be utilized for health (7).

The majority of TB officers have sufficient knowledge about Active Case Finding activities, this may be because the officers have received appropriate training. Training is held with the aim of improving the mastery of skills and techniques for carrying out certain jobs. Training is part of an educational process that aims to improve the special abilities or skills of a person or group of people. Training improves the quality of work, through training it is hoped that someone will more easily carry out their duties (8).

The types of activities of TB officers towards the implementation of ACF in DIY are mostly appropriate. Most of the TB officers' behavior regarding Active Case Finding activities was also appropriate, perhaps because the TB officers already had sufficient knowledge. This is in line with the results of research Tlale (9) which shows that the factors that influence the behavior of health workers towards TB treatment are knowledge, attitudes, and practices.

Although TB officers have sufficient knowledge, good behavior, and know the types of activities that are suitable for Active Case Finding activities, their implementation is still not optimal. This is because officers experience obstacles implementing ACF, such as lack of time and energy, minimal budget, and there are several areas that do not yet have cadres so that it is more difficult to reach the community. In addition, the average TB officer in DIY is also constrained by a double burden, making it more difficult to focus on the tuberculosis program. Some officers even concurrently carry out HIV programs, ARIs, etc. In accordance with Sayd's statement that limited human resources, facilities, infrastructure and inappropriate workloads can affect the performance of health workers (10). In addition, the community is considered to be still less open up to tuberculosis, so it is not easy to really maximize the Active Case Finding. The public's openness about tuberculosis is caused by several factors, like education and knowledge. Basic knowledge of the community about the symptoms and methods of transmission of TB has important implications for the ACF program, and it can reduce delays in diagnosis and treatment, as well as the spread of the disease (11).

The main task of TB puskesmas officers who are involved in finding new TB cases is 90% working as implementing nurses who have additional duties as TB officers. Optimizing the role of nurses in various TB control methods such as Active Case Finding can be the main key to successful treatment of tuberculosis in the community (12).

5. Conclusion

Officers already have sufficient knowledge, appropriate behavior, and a good understanding of the types of activities carried out in the application of ACF. However, the implementation of the ACF is still not optimal due to several technical obstacles such as double burdens, inadequate facilities and infrastructure, limited funds, and communityopenness. So that community involvement still tends to be lacking, maybe this is what makes TB case findings in DIY not optimal.

6. Suggestion

Full support is needed for TB officers at puskesmas to implement ACF in a focused manner, such as reducing the performance burden, completing facilities, easing the budget, increasing community sensitivity to TB, and refocusing the TB program to be ACF oriented.

References

Kementrian Kesehatan RI. Petunjuk Teknis Manajemen Terpadu Pengendalian Resistan Obat. 2014. 2 p.

WHO. Global Tuberculosis Report 2019. Geneva: World Health Organization; 2019. 58 p.

Biermann O, Lönnroth K, Caws M, Viney K. Factors influencing active tuberculosis case- finding policy development and implementation: A scoping review. BMJ Open. 2019;9(12):1–12.

Indah M. Tuberkulosis. InfoDATIN 2018 Kementeri Kesehat Republik Indones. 2018;6.

Chadha VK, Praseeja P. Active tuberculosis case finding in India – The way forward. Indian J Tuberc. 2018;(8):1–8.

Okeyo I, Dowse R. Community care worker perceptions of their roles in tuberculosis care and their information needs. Heal SA Gesondheid [Internet]. 2016;21:245–52. Available from: http://dx.doi.org/10.1016/j.hsag.2016.05.004

Pranata S, Pratiwi N, Rahanto S. Pemberdayaan Masyarakat Di Bidang Kesehatan, Gambaran Peran Kader Posyandu Dalam Upaya Penurunan Angka Kematian Ibu Dan Bayi Di Kota Manado Dan Palangkaraya. Bul Penelit Sist Kesehat. 2012;14(2 Apr).

Maryun Y. Beberapa Faktor yang Berhubungan dengan Kinerja Petugas Program TB Paru Terhadap Cakupan

Penemuan Kasus Baru BTA (+) di Kota Tasikmalaya Tahun 2006. 2007;1–125.

Tlale LB, Masupe T, Molefi M, Tshikuka J. Knowledge , Attitudes and Practices of health care workers ' towards tuberculosis contact tracing in a TB / HIV Prevalent setting. 2015;2(3):16–22.

Sayd GA, Gana F, Kase P. Faktor-faktor yang

mempengaruhi kualitas kinerja pegawai kantor pertanahan di Kabupaten Rote Ndao. Masyarakat, Kebud dan Polit. 2016;29(2):61.
Tolossa D, Medhin G, Legesse M. Community knowledge, attitude, and practices towards tuberculosis in Shinile town, Somali regional state, eastern Ethiopia: A cross-sectional study. BMC Public Health. 2014;14(1):1–13.
Williams G. The role of nurses in TB control. 2004;(October).