



Relationship between knowledge and commitment of officers with officers' performance as an effort to improve the finding of patients with leprosy

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Abstract

Background: Leprosy is an infectious disease which remains a health problem in the community. The purpose of this study was to analyze the relationship between the knowledge and the officers' commitment with the performance of effort to increase detection case of leprosy.

Method: This was an observational study using cross-sectional approach with a total sampling calculation is leprosy officers in primary health cares who found and treated leprosy.

Result: The results showed that the performance of primary health care of leprosy officers in making early leprosy findings was not good >20% due to the lack of knowledge about the implementation of leprosy findings (B=0.071). The weak commitment of the officers responsible for the implementation of leprosy findings, the performance of early leprosy findings was not good >20% (B=0.005).

Conclusion: That the knowledge and commitment of primary health care of leprosy officers have a positive effect on performance.

Keywords: knowledge, commitment, leprosy, officers, performance

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INTRODUCTION

Leprosy is an infectious disease as a health problem in the society due to its long-time infection to clinical disease, in theory leprosy germ incubation period is between 2-5 years. Leprosy is a chronic infectious disease caused by the intracellular bacterium *Mycobacterium leprae* with affinity with peripheral nerve tissue skin cells and Schwann cells. The respiratory pathway acquires this microorganism. Just years after first contact with the bacillus, clinical manifestations emerge (Lira, et al. 2012). *M. leprae* is an obligate parasite, thus defense mechanism toward *M. leprae* infection depends mostly on cellular immunity (Rahfiludin, et al. 2007).

Public's knowledge about the disease is considered to be low, the early symptoms are considered as a common skin disease. Hence, most cases occurring in health-care facilities is a disability condition. Defects occurring in the leprosy illness make a stigma in society as a curse so that people tend to isolate leprosy patients. Problems aroused by leprosy is more complex, not only in terms of medical treatment but also in extends on social, economic, cultural, safety and national defense. Indonesia managed to hit the target as leprosy control defense that were set in 2000 as a milestone

achievement of elimination in the world. However, the finding of new cases over 10 years was determined as a static trend of the finding of new cases of leprosy >1000 cases from 2004 to 2011 (Kementarian, et al. 2016; Mbulawa, 2017).

Leprosy is still a public health problem, even though case detection rates are not declining, 1 vertical leprosy program are disappearing and disease control programs reforming (Bakker, 2006). In national, East Java Province is in the ninth rank in the finding of new cases in each 100,000 populations, but when we saw from the number of cases found in East Java, Indonesia, it contributes the most cases. The high proportion discovery of second level disability leprosy patients in East Java was equal to the problems arouse in the national leprosy program in the period of 2011 until 2015 in 12-13%. Likewise, the children cases were raised more than 5% (Kementarian, et al. 2016). In 2014 and 2015, WHO launched the Global Leprosy Strategy 2016-2020: Accelerating towards a leprosy-free world, which aims to reinvigorate efforts to control leprosy and avert disabilities (Eyanoer 2018). Ponorogo District was

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included as a new case detection of leprosy patients' discovery during the period of 2011 until 2015 with the proportion of defective in the second level remains as high. Case Detection Rate (CDR) in 2011 up to 2015 amounted to 6-7 in each 100,000 population. The cure rate Paused Basler (PB) had already met the target of >95%, while the cure rate Multi Basler (MB) is still need awareness. The highest level of disabled leprosy patients second level in East Java province is affected by a high-level proportion of disabled leprosy patients in some counties or cities. The disability of leprosy patients was due to the late detection and treatment (Kementrian, 2016).

The high proportion of cases in leprosy patients is in second level in Ponorogo, likely it is caused by the patients themselves and the attendants. In addition, it may be also because the unprepared policies from leprosy control program which was the officers' patient management and governance programs. It ensures that the general health service is liable for leprosy prevention and activities of control. However, this integration means the patients are treated by general health staff during routine appointments rather than by leprosy specialist employees in leprosy specific clinics and may contribute to misdiagnosis and care (Abeje, et al. 2016). Application of this concept in leprosy control would shift control activities from the current population based approach to a more targeted approach for high risk groups (Bakker, et al. 2005).

One of the attendants' factors that caused the proportion of leprosy patients in second level is the possessed knowledge and the commitment of people working in the primary health care. There are many factors which can increase knowledge, one of them is experience. The truth of knowledge can be obtained from experience because it can be done by repeating the experience that has been received to solve a problem (Abeje, et al. 2016). Besides knowledge, commitment can be influenced to job satisfaction, which can affect officer's loyalty and increase the profit. That job satisfaction will arise if the employees enjoy their jobs and the environments, while dissatisfaction feeling will arise if the employees do not enjoy their jobs. The job satisfaction is a positive behavior that is felt by the employees toward their jobs which is affected by the job situation assessment (Utami & Sitohang 2019). The notion of organizational commitment demonstrates the way a employee of a organization is linked to it and is committed to it (Valaei & Rezaei 2016).

All organizations that want success today definitely need employees who act beyond their public work duties, which will deliver performance beyond estimates. Differences in individual characters lead to differences in the way people perceive how to contribute to the company. Someone will contribute more to the progress of the company even though they don't get a real award, but not necessarily other people feel the same way.

Hence, the individual character in contributing to the company differs from one another (Saragih, et al. 2019). Changes in the governance, design, and delivery of public services are often needed by public organizations. For public sector organizations, implementing these organizational changes is a considerable challenge. In general, organizational change is not considered as a problem with the implementation in public management research, despite the importance of organizational changes for public management practices. Public management research on organizational change, instead, is often focused on sector-based or national changes, et al. 2016). Given that job satisfaction is considered to be the most important antecedent of affective organizational commitment. In addition to job satisfaction, past research has shown that various organizational aspects such as high-performance resource practices, support management, ethical environments, peers' and leaders' ethical behaviors and leadership styles, especially transformational leadership, have a positive effect on organizational commitment (Suri & Petchsawang 2018).

The WHO mentioned the lack of clinical skills in the recognition and management of leprosy and its complications, the lack of interest in leprosy for young doctors, research failure, and less political commitment as key challenges in reducing leprosy burdens in the enhanced international strategy on leprosy (2011-2016) leprosy. Many governments now have a reduction in leprosy investments, with the result that their expertise and knowledge of the disease are declining (Kabir & Hossain 2019). Thus, the purpose of this study was to analyze the relationship between the knowledge and the officers' commitment with the performance of the officers as an effort to increase detection case of leprosy.

MATERIALS AND METHODS

Research Design, Population, Samples and Variables

This was an observational research study using cross-sectional approach in Ponorogo District, East Java, Indonesia and used the calculation of total sampling of 29 officers from 29 primary health care centers which discovered and treated leprosy patients. The dependent variable in this study was officers' performance in improving early discovery of leprosy patients, while for the independent variable was the officer individual factors (knowledge and commitment).

Instruments

The instrument in this research was an interview with a guide questionnaire. The measure dependent variable and the independent variables started with identifying each variable to some indicators, determining the response from each variable, arranging some questions and statements from each variable into questionnaire, until testing the questionnaire with validity and reliability

Table 1. Characteristics of Primary health Care Center Officers by Sex and Leprosy Training in Ponorogo District in 2017

Characteristic of officers	n	%
Sex		
Male	17	59
Female	12	41
Leprosy Training		
Attended the training	25	86
Not attended the training	4	14

Table 2. The Relationship between Knowledge with Performance of Primary Health Care Center Officers in Ponorogo District in 2017

Knowledge of Officers	Performance						n	%
	Less		Moderate		Good			
	n	%	n	%	n	%		
Less	1	50	1	50	0	0	2	100
Moderate	1	10	7	70	2	20	10	100
Good	0	0	10	59	7	41	17	100
Total	2	7	18	62	9	31	29	100

test. The officer's knowledge was good when respondents had 7 (seven) above for score in questionnaire they get, if the knowledge was moderate when the score around 5 (five) to 7 (seven) and the knowledge was less when the score under 5 (five). The officer's commitment was strong when respondents had 5 (five) above for score in questionnaire, the commitment was moderate when the score around 3 (three) to 5 (five) and if it low, when the score under 3 (three) in questionnaire. The respondents were leprosy of primary health care centers officers, and the interview was conducted directly, which the researcher came to the primary health care centers. The procedures of data collection, whether it was about dependent variables or independent variables, were done by direct interview to fill in a questionnaire that has been prepared or the respondent answered the questionnaire.

Research Procedure and Analysis

Before the respondents filled out a questionnaire that has been prepared, they were given Explanation Prior Research studies, then they had to sign *informed concern* which was also signed by the investigators and the witnesses. This study had been certified by ethical approval number: 68-KEPK issued by the health research ethics committee of faculty of public health, Universitas Airlangga, Indonesia. The data for analyzing used in this research were descriptive analysis and associative (correlative) using the IBM statistical software to analyzing the data, which was recommended based on the objectives to be achieved. Then, they made a rank based on the results of descriptive and correlative analysis. Top five ranks which descriptively were still a problem (a positive value <80%), thus the study was defined as a strategic issue. The strategic issues used as a study material in the Focus Group Discussion (FGD) with the leprosy clinic officers, Head of Disease Prevention and Control, Head

Table 3. The Relationship between Commitment with Primary Health Care Center Officers Performance in Ponorogo District in 2017

Commitment of Officers	Performance						n	%
	Less		Moderate		Good			
	n	%	n	%	n	%		
Low	1	100	0	0	0	0	1	100
Moderate	1	4	15	63	8	33	24	100
Strong	0	0	3	75	1	25	4	100
Total	2	7	18	62	9	31	29	100

Table 4. The Relationship between Individual Factors with performance of Primary Health Care Center Officers in Ponorogo District in 2017

Variable Dependent	Variables Independent	B (Influence)
The performance of primary health care officers in finding leprosy patients early	Knowledge of officers	0.071
	Commitment of officers	0.005

of Prevention and Control of Communicable Diseases and Head of Primary Health Care Center.

RESULTS

The characteristics of leprosy Primary Health Care officers in **Table 1** showed that the leprosy of Primary Health Care officers in Ponorogo District was dominantly found in males, consisting of 17 officers. There were 86% of the officers who attended training of early discovery of leprosy.

The results of the analysis of each independent variable with using crosstab related to the dependent variable in **Table 2** showed that the performance of leprosy Primary Health Care officers in performing early discovery of leprosy was not good enough >20% due to the lack of knowledge about the implementation of the leprosy invention.

In addition of that, that was due to the uncertain commitment of the officers with the implementation of leprosy discovery in **Table 3**. The early detection of leprosy patients was not good enough >20%.

The influence of the independent variables in **Table 4** was taken closely with the dependent variable, which was 73% (B=0.005). Officer individual factors (knowledge and commitment) had a positive influence with the performance of the officer who found an early discovery of leprosy, indicating the higher the independent variable is, the higher the dependent variable will be.

DISCUSSION

Based on the results and discussion, the success of the Primary Health Officer of the Leprosy in identifying leprosy patients at an early stage is still deficient at person attending influences, there is less awareness and dedication by the officers, however the variables had a good impact on the leprosy officer results would increase the leprosy detection. Individual attendant factors of knowledge and commitment of the officers are

considered to be minus and they are still an issue. The performance of the leprosy primary health care officer to finding leprosy patients at an early stage is also lacking, but the individual factors have positive influence, thus will improve officers' performance in finding leprosy patients. The results showed that the knowledge of leprosy health center officers in Ponorogo was good enough and had positive effect with performance, indicating that leprosy primary health care officers' knowledge about the disease affects their performance in finding early leprosy patients, despite of the small influence. Officer's knowledge is obtained through leprosy training programs which organized by the health department. A good knowledge of the officers shows how good the task and the responsibility can be done. The findings provided a comprehensive epidemiological and geographical distribution of leprosy in Bangladesh, as well as providing information on the social aspects of the illness, including community health care, knowledge and related stigma among the persons affected by leprosy (PABL), service providers and policy-makers' knowledge, and practices (Kabir & Hossain 2019).

Some research said that the higher and better the knowledge is, the employees' performance will increase as well, and vice versa. Organizational performance from individual aspects becomes essential because individuals must have knowledge. Education and training can be seen as one form of investment. If an organization or agency wants to develop, education and training for its employees must receive attention to develop knowledge, attitudes, and work skills in their efforts to improve employee performance to produce quality products (Dewi, et al. 2019).

Regarding the socio-economic status of the two groups, significant differences are examined of education, literacy, leprosy family history and annual household income. These differences have also been identified by a previous study, implying a worse social situation for leprosy patients than the general population. Leprosy is a social disease, as observed in this study, which continues to deprive the opportunity of education, work, etc (Tsutsumi, et al. 2007). Training and refreshing moment was given to increase the knowledge and skills of the officers in carrying out their performance in finding early discovery of leprosy patients as an attempt to lower the proportion of second level defects of leprosy disease in Ponorogo District. This result is supported with different research that good officer's knowledge must be supported by the ability to diagnose in leprosy cases, it can be effected with the finding leprosy disease (Yap & Kiung 2016).

Increased knowledge is the expected impact of training. Another study stated that staff development programs through training and education are effective programs to increase nurse productivity. Adequate support in the form of professional training and knowledge development is one of the efforts to create a

positive work environment for nurses to provide safe care. Training is defined as an organized method to ensure that individuals have certain knowledge and skills and individuals gain good knowledge about obligations in their work (Ulfah, et al. 2019). If such knowledge is not properly managed, knowledge through the learning process is not empowering. It is clear in another study that organizational culture will make knowledge management goes well with the way it affects members of the organization to learn and share knowledge (Wahda, 2017).

The later diagnostics of women with leprosy, in relation to their male counterparts, can be attributed to the stigma surrounding leprosy experienced from the wider community resulting in increased self-stigma, poor status and economic dependence and the potential gender sensitivity of services. Although the only places in which women experience growing difficulties in leprosy diagnosis are more than likely, these four fields can be an ideal starting point for organizations focusing on leprosy (Tiwari, et al. 2019). The problems of those with less knowledge was because leprosy officers were new untrained personnel, leprosy officers who were in the long undergoing training, leprosy cases were rare to be found, especially in low endemic areas, so the lack of practice was found even though they had already got the training (Abeje, et al. 2016).

The lack of experience in finding leprosy cases affects the officers' confident in diagnosing the leprosy diseases. Although they have been well trained and have a good knowledge, but the fault of diagnosing the patient, being hesitant to diagnose a common point was a normal case, so there might be a patient who passed from a diagnosis of leprosy caused by the lack of confidence of leprosy primary health care officer. Knowledge is a process, where the formation is continuously arranged through analysis, synthesis up to evaluation (Abeje, et al. 2016). Indian leprosy services are now largely integrated into the general public-health system. Previously, the country's National Leprosy Eradication Program (NLEP)

was fully vertical, providing separate human resources and infrastructure to leprosy services, which later merged into the general health care. Nonetheless, NLEP still provides limited vertical support, especially to highly endemic areas, mainly for the following: non-capital

expenditure on diagnostics; disability (rehabilitation, reconstructive surgeries and prosthetics); Information Education and Communications (IEC); additional human resources; and research. Indian leprosy services are now largely integrated into the general public-health system. Previously, the country's National Leprosy Eradication Program (NLEP) was fully vertical, providing separate human resources and infrastructure to leprosy services, which later merged into the general health care. Nonetheless, NLEP still provides limited vertical

support, especially to highly endemic areas, mainly for the following: non-capital expenditure on diagnostics; disability (rehabilitation, reconstructive surgeries and prosthetics); Information Education and Communications (IEC); additional human resources; and research (Tiwari, et al. 2019).

Indian leprosy programs are now fully integrated into the broader framework of public health. Previously, the NLEP was fully vertical, providing separate leprosy services human resources and infrastructure that later merged in the general healthcare sector. Investment in HR rather than fixed infrastructure is needed to achieve such programs. Patients also tend to visit health facilities for critical curative treatments, such as sudden co-morbidity or leprosy responses, and remain non-regular for routine diagnostic tests. More HR also means more training; Accordingly, the general budgets for training must also be reviewed. Generally, leprosy elimination for policy and planning is lacking in cost evidence (Tiwari, et al. 2019).

Satisfaction at work and organizational commitment have been seen as work-related attitudes in theory of organizational behavior: one signifies employee feelings about their job; the degree to which people like (satisfaction) or dislike (in satisfaction) and other employees shows how unanimous an employee is to their organization. This attitude is important for management as it determines the conduct of workers in the organizations and their tenure (Suri & Petchsawang 2018).

The results showed that the officers' commitment in Ponorogo District was considered as weak and had a positive effect on the performance, indicating that the officers' commitments to the leprosy program implementation affect the performance of leprosy primary health care officer in finding early leprosy cases despite of the small influence. Officers' commitment reflects their positive attitude to the organization, and those motivated the officers to behave and to be discipline in work, to obey the rules and policies of the organization, to maintain good relations with colleagues, and to improve the individual's performance (Jehanzeb & Mohanty 2018).

Affective commitment is the psychological and emotional association of the company's employees. Normative commitment is defined as the ethical responsibility of employees to continue working with the organization for a long time (Jehanzeb & Mohanty 2018). Meanwhile, individual's commitment is influenced by the head of the primary health care, co-workers, training, working conditions, work climate, compensation, participation, and trust. A good commitment is shown as a strong desire to be reliable of the responsibilities and the duties by activating all

capabilities and efforts owned by the officers (Saleem, et al. 2018).

Leprosy officers of primary health care centers in Ponorogo had 13.8% good intention to the implementation of leprosy program. Hence, the attempts of early discovery of leprosy patients was low, and it caused high proportion of disability second level or >5% in Ponorogo District. This is in line with some research. Previous studies revealed various predictors that can be classified into 4 groups: organizational structural factors, job characteristics, personal characteristics, and attitudinal variables. The associations observed in this study suggest that promotional incentives, clarification of the position and engagement in employment are linked positively to work satisfaction. An increased job satisfaction in these three areas will increase and, in turn, increase community correctional officers' organizational commitment (Jiang, et al. 2018).

Job satisfaction is a variable to boost the level of services rendered by the public sector. Employees satisfied with their job are personally motivated to pursue what they intend to achieve. Satisfaction of workers would help them enjoy their work (Nurung, et al. 2019). Improved job satisfaction by, for example, designing effective and efficient incentive programs and job descriptions will increase the commitment of employees to their existing departments and therefore support changes (Yousef, 2017). This study examined the factors affecting the performance of the leprosy primary health care center officers who found leprosy patients at an early stage to be able to reduce the proportion of leprosy disability on the second level in new cases in Ponorogo District. The following factors were; individual attendant factors, organizational factors of primary health care, health authority factors and patient factors. This study was limited just on the individual attendant factors (including knowledge and commitment).

CONCLUSION

The suggestion that the next researcher should be doing the research about the effectiveness of the method in finding lepers that can be used as a reference standard for all primary health care centers and finding any efforts to prevent disability in new leprosy sufferers whom they can be treated immediately.

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