

The Role Of Posyandu Cadres In Empowering Communities With Infectious Diseases In Petir District

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Abstract

Indonesia ranks third out of eight countries contributing 2/3 of TB (tuberculosis) cases in the world. DHF is a disease that spreads not from one human to another, but from the Aedes Aegypti mosquito. The role of cadres in empowering the infectious disease community is urgently needed as an intermediary for sources of information from medical personnel. Cadres are not only as Posyandu or Posbindu services but cadres can also help medical personnel to turn residents into healthy communities. The purpose of this study was to find out whether Posyandu Cadres and health workers in had carried out their duties to make the community a healthy society or not, and whether they had been optimal in dealing with infectious diseases and also how the cadres worked in handling infectious diseases. The method used in this study is a qualitative method, namely by interviewing one of the cadres in the village of Rt.06 Petir and also the second method, namely by observation. The cadres have worked according to their capacity and have done well, and maybe in the future it will be even better. The results of this research have implications for policy development and implementation of dengue fever eradication programs. Apart from that, finding cadres who have carried out their duties in accordance with their capacity and standard procedures can improve cooperative relations with other related cadres and institutions.

Keywords: *Dengue fever, Cadres, Health, Infectious diseases, Tuberculosis*

INTRODUCTION

Indonesia ranks third out of eight countries that contribute 2/3 cases of TB (tuberculosis) in the world. In 2020, it is estimated that 93 thousand people will die in

Indonesia, and 824 thousand people will fall ill with TB. In 2020 there were 384,025 cases or around 47%, the number of cases found decreased by 178,024 from 2019. The cure rate for TB treatment is still suboptimal, namely at 82%, which is still below the global target for the success rate in treatment which should be 90%. Meanwhile, data for 2021 shows that the number of TB cases treated and reported to the existing system is 356,957 cases, in other words, the coverage of discovery and treatment (treatment coverage) is 43%, even though the target should be 85%. Those who are not in the data system are certainly not treated and can become a source of infection for the surrounding community so that the problem of tuberculosis will continue to arise in Indonesia (Aditama, 2022).

Further studies related to community empowerment in the health sector are very important to become a benchmark for policy changes and improvements. This was also conveyed by Nutbeam (1998) who said that community empowerment in the health sector is a process that allows a person to gain greater control over decisions and actions that affect their health. It aims to mobilize vulnerable individuals or groups by strengthening their basic life skills and increasing their influence on various matters based on social and economic conditions. WHO (World Health Organization) also continuously publishes various forms of guidance, reports and publications related to community empowerment in the health sector. Prodyanatasari (2024) also finds out that activity of community development after Covid-19 even can produce and stimulate new habit and production of antibiotics from local sources. In other words, this activity stimulates continuous progress of global health purposes with significant effect to the community.

According to (Cahyo Ismawati S et al., 2010 in Coenraad et al., 2020) A cadre is a volunteer recruited from the community, by and for the community, whose job is to assist in the smooth running of health services. The presence of cadres is often associated with routine posyandu services, so a posyandu cadre must be willing to work voluntarily and sincerely. Willing and able to carry out and participate in posyandu activities. While the definition of infectious diseases according to experts is, diseases that can be transmitted (moved from one person to another, either directly or through an

intermediary) (Natoadmodjo, 2003). People who are vulnerable to contracting infectious diseases are pregnant women, infants, and the elderly

The basic theory in this research is according to (Safrizal et al., 2020) said in the book "PEDOMAN MANAJEMEN Bagi Pemerintah Daerah Dalam Penanganan COVID-19 dan Dampaknya" of 5 (five) strategies, namely:

1. The strategy for preventing the spread is through outreach, tracking, identification, testing, quarantine, social and physical distancing.

2. The strategy to increase the immune system is by sunbathing, exercising, eating nutritious food, taking vitamins, getting enough rest.

3. The strategy for increasing the capacity of the health system is by increasing medical personnel, increasing health support facilities, increasing treatment rooms, strengthening the health system.

4. Strategies for increasing food security and the medical device industry, namely overseeing the production and distribution of basic needs, increasing the production of medical needs, various strategic policies.

5. The strategy to strengthen the national social safety net, namely, economic stimulus, direct assistance to the community, a mixed program implementation strategy.

As for some research related to this title are as follows. First, (Suharyo, 2013:85) explains that most of those affected by tuberculosis in rural areas are people who have secondary education, are of productive age and are in the underprivileged category. Second, research conducted by (Darmawan, 2016:195) says that infectious diseases occur as a result of interactions between disease agents (living microorganisms) and non-communicable diseases occur due to the interaction of disease agents (non-living agents). Third, (Juwita et al., 2017:69) said PKM activities through FGDs can determine problem solving in DHF problems. The DHF prevention program emphasizes training and mentoring methods for village officials so that they can guide the families under their supervision. Fourth, Karim et al., (2018) explained that counseling for cadres can add insight to cadres. Fifth, (Suprpto, 2018:1114) said that people's attitudes in efforts to prevent tuberculosis are still lacking, so it is necessary to increase counseling so that people can find out more about efforts to prevent

tuberculosis. Sixth, (Rita et al., 2019:1) states that through the Aisyiyah Community TB care program the results obtained are empowerment of cadres through retraining, counseling, training in monitoring drug swallowing which can optimize the role of TB cadres this will increase the scope of suspect outcomes, and increase the cure rate. Seventh, (Andika et al., 2020) with education and question and answer sessions can broaden students' insights about infectious diseases, such as symptoms, methods of transmission, methods of treatment and methods of eradicating infectious diseases. Eighth, (Inderiati et al., 2021) said the role of cadres can encourage residents to pay more attention to health. Ninth, (Maryani et al., 2021:222) said that the perception map of non-communicable disease prevalence data shows a more diffuse pattern than the perception map of infectious diseases. Tenth, (M Solihatu et al., 2022:289) explained that health education promotion activities regarding HIV/AIDS risks can increase the knowledge and understanding of cadres about preventing HIV/AIDS risks, and eliminate the stigma about HIV/AIDS. Based on the explanation above, the difference between this research and previous research is that I will discuss whether Posyandu cadres and health workers in the Petir district have carried out their duties to create a healthy community or not, and whether they have been optimal in dealing with infectious diseases in the Petir district environment, especially RT.06. Therefore, this becomes the gap of this present report.

The selection of the role of cadres in public health against infectious diseases is the subject of this discussion because this infectious disease is very easy to spread, for example, that can be through the air or from the glass that we use used by people affected by the infectious disease. And people who are susceptible to contracting this disease are pregnant women, infants, and the elderly. Previously the program in the Lightning Village was by checking mosquito larvae, namely preventing the presence of DHF mosquitoes and this was often done by Posyandu cadres to record and check all the houses that were felt to have the potential for mosquito larvae to appear in water in tubs or buckets, and now there is TB cadres or tuberculosis cadres by checking and recording people affected by infectious diseases and if necessary, referred will be referred to the hospital. Therefore, the role of cadres can be intermediaries so that

people affected by infectious diseases can be immediately handled by the health team and how cadres can inform about infectious diseases to the community.

There are several purposes of this study. First, it aims to find out whether Posyandu cadres and health workers in the Petir district have carried out their duties to make the community a healthy society or not. Second, the result of this study is expected to find out whether cadres have been optimal in dealing with infectious diseases. Third, it aims to investigate how cadres work in handling this infectious disease. All of these purposes are expected to be implicated by community, government, as well as other non-government organization to develop and revise the future policy of handling this disease. Moreover, the finding will be the role model of other community development cadres from other institution in order to implement most effective procedure of community development activities. This also stimulate all of community development project to increase their collaboration and innovation.

METHOD

The method used in this study was interview and observation which is a qualitative method to the chief executive officer of the posyandu in the Petir district, namely Rt.06 through an interview process to find out more about the program implemented in the Petir district, according to the theory put forward by Perreault and McCarthy. (2006: 176) describes qualitative research as a type of research that aims to explore information in depth and be open to various responses. This research tries people to express their various thoughts about a topic without giving them much guidance or direction. In getting the results of this method, namely an interview by coming directly to the Posyandu organizer's house in Rt.06 on May 5, 2023, the duration of the interview was 30 minutes.

The second method is observation, observation is carried out through the author's observation of what cadres do in examining people who have TB disease, the evidence that can be seen is how cadres go to the homes of residents who have infectious diseases. The author can also see the activities of cadres in giving Abate medicine to prevent mosquito larvae. In observing the activities of cadres, the author can find out

how the role of cadres is in recording and examining residents affected by this infectious disease.

RESULTS AND DISCUSSION

As it is known that the cadre is a medium for carrying out posyandu, whether it is posyandu for toddlers and pregnant women or posyandu for the elderly which has been done a lot now. Posyandu cadres in Petir district not only check or help doctors to check the health of babies, toddlers, pregnant women, and the elderly which is routinely done every month. But cadres in Petir district are usually divided into tasks such as those who become TB cadres or Tuberculosis cadres, whose job is to check or record people affected by Tuberculosis disease or we usually know that the disease can be transmitted through saliva or by using items such as the sufferer's cutlery. and some are only Posyandu cadres, and there are also only Posyandu cadres, there are also Posyandu cadres who are tasked with checking mosquito larvae in residents' homes that have the potential for the birth of *Aedes Aegypti* mosquitoes, this activity is commonly called JUMANTIK (Juru pemantau jentik), actually there are several other programs carried out such as the prevention of bird flu and other infectious diseases.

This study will discuss the role of cadres in infectious diseases such as Tuberculosis and DHF that occur in the Petir district. According to the Ministry of Health, Tuberculosis or TB is a disease caused by infection with *Mycobacterium tuberculosis* bacteria in the lungs, sometimes referred to as pulmonary TB. Tuberculosis bacteria that attack the lungs cause respiratory problems, such as chronic coughing and shortness of breath. In addition to pulmonary tuberculosis, there is also extra tuberculosis or tuberculosis that attacks outside the lungs such as bone tuberculosis, kidney tuberculosis, brain tuberculosis, and glandular tuberculosis.

Dengue fever is a disease caused by the *Aedes Aegypti* mosquito. According to the Ministry of Health, dengue fever is a disease caused by the Dengue virus transmitted to humans through the bites of *Aedes Aegypti* and *Aedes Albopictus* mosquitoes. Dengue fever is not transmitted from one human to another but through animals, namely mosquitoes.

In this research, the author conducted research at the home of the Posyandu chief executive in Rt.06, the author found information from several questions to one of the cadres in Rt.06 Petir district about the existing program. The first finding related to what kind of program do you carry out for the prevention of communicable diseases (TB, DBD) in the form of socialization and increasing knowledge in the community, both affected and those who are not affected? The result shows that for infectious disease prevention programs such as TB and DHF as Posyandu cadres have been given training and socialization to know in advance the symptoms of infectious diseases such as TB, the symptoms of TB are coughing for more than 1 week, excessive sweating at night and houses that lack air ventilation or no sunlight entering, or not we will ask the person to ask for sputum or pustim, in the morning and we take it to the PKM laboratory. For dengue, we use jumantik (mosquito larvae monitors) to check for stagnant water in people's homes such as bathtubs, buckets or other puddles that might contain mosquito larvae, after which Abate (mosquito larvae killer drug) will be given.

The second finding answers the questions "Is the capacity of the health system adequate in this health program?" The capacity of the health system is very adequate because the patient is monitored continuously and there is data collection to the family closest to the patient, namely IK (Contact Identification) and the closest family will be asked for sputum like the patient to be checked at the lab so that it can be seen whether the patient's family members are infected or not. Moreover, what kind of program do you carry out in the form of the medical device industry for medical teams or for people affected by infectious diseases? It can be seen from the finding that If the cadres are only given a sputum pot, which is to test whether the person has tuberculosis or not, after getting the sputum it will be taken to the puskesmas laboratory, usually in checking cadres wear masks so as not to be infected and for DHF, by checking mosquito larvae using only a flashlight to see mosquito larvae, no medical equipment is used if only checking mosquito larvae.

The next question is "how did the cadres first identify people with infectious diseases?" For how to identify the first time for cadres, namely after sputum from people affected by infectious diseases or people who experience characteristics that indicate they have an infectious disease, the sputum is checked at the puskesmas lab and

if it is positive, the patient will be given counseling about periodic treatment for 6 months and asked not to have direct contact with family, especially families who are vulnerable to transmission, initially the patient seeks treatment at the puskesmas and then if he feels some symptoms, it will be processed so that it is proven that this patient has an infectious disease or not. For DHF, you can usually go directly to the health center for further examination or you can go directly to the hospital. In this program, the other question also figures out that “will people with infectious diseases be quarantined so that the disease does not spread to other people? It can be found that for TB, patients are not quarantined, but are not allowed to eat and drink with the same utensils as other family members. And keep a distance from family especially with those who are vulnerable to contracting the disease. And must take medicine for 6 months.

Furthermore, the following finding answers “What is the form of protecting the health of the affected and non-affected people? The program for infectious diseases, PKM always conducts training for posyandu cadres to convey to the community to move PHBS (Clean and Healthy Living Behavior) in their respective homes. Because by means of PHBS the community can change bad habits such as smoking in homes where there are toddlers because toddlers are very vulnerable to cigarette smoke and are encouraged to exercise and eat nutritious food. For TB disease, with the PKM program implemented, it can be prevented for transmission, but it returns to the lifestyle in the community itself, if the environment implements PHBS, TB sufferers can be reduced. But for residents who die from tuberculosis, it is usually those who do not take the medicine given by the doctor which must be taken for 6 months, if they stop during the period the drug is taken, the person affected by TB disease must take it from the beginning, namely repeating 6 months again. In the prevention of dengue fever, Jumantik cadres will also give the name abate to be distributed to residents' homes where there is stagnant water that can trigger the emergence of mosquitoes that cause dengue fever. It also clarifies “Is there a policy in this program for the government regarding healthy living? As it has been said that the Puskesmas recommends PHBS, which is healthy living behavior for residents, but there are residents who do not do it.

The last question answered by this study is “Does the program you carry out provide assistance to people affected by this contagious disease? There is no assistance

in the form of money, maybe in the past during covid-19 there was assistance such as basic necessities, but for infectious diseases such as Tuberculosis, they are only given free drugs that must be taken continuously for 6 months and if they stop, they will repeat the drug count again, this drug is given free of charge whether they have BPJS or not. And for dengue fever or Jumantik activities, only anti-mosquito larvae drugs are given, namely "Abate".

So, from some of the questions asked by the author to the informants, it can be seen that the program carried out by the posyandu cadres is good for the surrounding community, the cadres carry out their duties quite well. What can be understood is how the cadres system to prevent and treat residents who are affected by the disease or not. In the programs discussed, namely tuberculosis and dengue, cadres usually always have a provision in understanding what concerns their duties in order to create community welfare in the health sector, cadres can convey it back to the community as additional knowledge of infectious diseases, at the time of Posbindu activities, cadres and doctors sometimes discuss infectious or non-communicable diseases. For cadres who are selected in several programs it is based on the choice of doctors or according to the ability of the cadre, in one RW in this TB cadre, one person is selected, but for cadres in Jumantik it is usually selected based on the chief executive of the posyandu.

The way cadres find out how patients are affected by infectious diseases such as TB is through patients who come to the puskesmas then if they show some symptoms or will cause symptoms then the cadre will act to immediately examine or take the patient's home to immediately take sputum in the sputum pot, the sputum pot is a medium for cadres to find out whether the patient is positive or negative for TB disease, After obtaining the patient's sputum, it is then taken to the puskesmas laboratory for further checking and if it is positive it will be immediately followed up with the administration of drugs for 6 months, that is in the case of TB, if in the case of DHF cadres do more prevention, although there are still residents affected by diseases transmitted by the *Aedes Aegypti* mosquito.

There is no special medical equipment used by cadres because if it is a matter of more in-depth health it is the business of doctors, cadres are only intermediaries for doctors to examine and record, when coming to the residents' homes the cadres wear

masks to avoid droplets or sputum splashes which are the beginning of contracting infectious diseases. In addition, as already explained, the cadres are given sputum pots to give to their patients. In checking for mosquito larvae, the cadres only need a flashlight to check for puddles in people's homes.

The source of transmission is from TB-BTA positive patients, when coughing or sneezing, the patient will spread germs in the form of droplets (sputum splashes). Droplets containing germs will survive in the air at room temperature for several hours depending on the presence or absence of ultraviolet light, poor ventilation and humidity. People can become infected if droplets are inhaled and enter the respiratory tract. The germs will spread from the lungs to other parts of the body, through the circulatory system, lymphatic system, airways, or direct spread to other parts of the body (Suprpto, 2018).

In the form of prevention of infectious diseases, medical personnel or puskesmas told their citizens to do PHBS, namely Clean and Healthy Living Behavior, as said by one posyandu cadre who said that the puskesmas implemented PHBS but there were residents who did not do it. PHBS is a form of prevention in disease, which posyandu cadres say that PHBS can change life to be healthier, such as not smoking in a house where there are toddlers because toddlers are very vulnerable to cigarette smoke and are encouraged to exercise and eat nutritious food.

According to posyandu cadres, infectious diseases can be prevented for transmission, but it goes back to the lifestyle in the community itself if the environment implements PHBS then TB sufferers can be reduced. The purpose of PHBS according to the Ministry of Health is to improve the quality of health through an awareness process that is the beginning of the contribution of each individual in carrying out behavior in clean and healthy daily life.

In the case of tuberculosis, there are people who cannot be treated or die, usually because the treatment for the disease is lacking or usually late, or because they do not take the medicine that should be routinely taken for 6 consecutive months. There are also many cases of people affected by dengue fever who die because dengue fever is usually a symptom of high fever, so not a few people think that it is a common fever.

In dengue fever or infectious diseases caused by the *Aedes Aegypti* mosquito, the cadres carry out prevention by checking each resident's house to check whether there are mosquito larvae in the stagnant water or not, usually in the toilet or other places. If that is the case, Abate will be given once every 3 months to prevent the emergence of *Aedes Aegypti* larvae and mosquitoes and usually periodic checks are carried out every month with different areas, for example the first month the Rt.05 area will be the next month Rt.06 and so on, and what is meant by Abate (Temephos) is a very strong larvicide that effectively controls the larval phase (larvae) of mosquitoes as disease spreaders (Litbangkes, 2017).

In this program there is no assistance in the form of money because the disease discussed is not an epidemic like covid-19. Maybe in the past during covid-19 there was assistance such as basic necessities, but for infectious diseases such as Tuberculosis, which is only given free medicine that must be taken continuously for 6 months and if it stops it will repeat the drug count again, this medicine is given free of charge whether you have BPJS or not. And for dengue fever or Jumantik activities, only anti-mosquito larvae drugs are given, namely "Abate". The following observations were made by the author on the role of cadres in infectious diseases such as tuberculosis and dengue fever.

Table 1. Role of Cadres in Handling Danguue Disease Report

Instrument cadres	Checklist
Socialization	√
Identification	√
Testing	√
Quarantine	√
Health system capacity	√
Medical device industry	√
Immune enhancement	√
Government policy	√
Direct assistance to the community	x

With the observations that have been made, it can be concluded that what the cadres have done is proven to be true. This was seen by the researchers themselves in

the observations made. Researchers see the role of cadres in infectious diseases can make people learn to be healthier again.

The cadres make the patients recover and can also make residents understand more about what infectious and non-communicable diseases are, PHBS activities become lessons from Puskesmas and health workers so that people can live healthier lives and avoid anything that makes themselves sick. The cadres run the program very well and affect the community in empowerment.

CONCLUSIONS

From the research on the role of Posyandu cadres in empowering communities affected by infectious diseases or not, it can be concluded in these following statements. First, the cadres have carried out their duties well but because the cadres are only intermediaries or as a contact person between medical personnel and residents, the cadres only serve as what is assigned. It can be understood that cadres have tried to realize a healthy community but it goes back to each citizen. In optimizing the control of infectious diseases, such as tuberculosis and dengue fever, it is quite good because the performance of the cadres is also good, with what is seen and the information obtained, it can be concluded that the performance of the cadres is quite good. Indeed, it is not so perfect because the cadres will know that someone has tuberculosis because the person seeks treatment at the Petir Health Center, and for DHF, the cadres only carry out prevention by providing Abate and data collection with JUMANTIK, after that if someone gets DHF it is outside the responsibility of the JUMANTIK cadres.

Moreover, the work carried out by cadres in infectious diseases is by socializing first, then if someone is affected by tuberculosis, they will be followed up by giving a sputum pot from the patient so that it can be examined further in the Puskesmas laboratory. And for JUMANTIK or larvae monitors, prevention is carried out by giving Abate medicine which will be sprinkled in puddles or in bathroom tubs so that mosquito larvae are destroyed. Based on these finding, it is clearly recommended for the future researcher to figure out more effective procedure of handling this disease in term of prevention steps without focusing only to maintain sanitation and fogging.

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