



## Nursing Services in Handling Tuberculosis Patients

(Study of Health Policy Implementation Based on Regulation of the Minister of Health of the Republic of Indonesia Number 67 of 2016 concerning Tuberculosis Control at the Darul Imarah Community Health Center, Aceh Besar Regency)

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### ABSTRACT

*Nursing Staff Services in Handling Tuberculosis Patients at the Darul Imarah Health Center, Aceh Besar District, due to the limited ability of human resources to carry out data collection actions so that it is not yet known in real terms about the examination and treatment that will be carried out. As for the formulation of the problem 1) How is the Service of Nursing Staff in Handling Tuberculosis (TB) Patients at the Darul Imarah Health Center, Aceh Besar District; 2) What are the Supporting and Inhibiting Factors for Nursing Services in Handling Tuberculosis (TB) Patients at the Darul Imarah Health Center in Aceh Besar District. While the objectives of the problem 1) To describe and analyze the Services of Nursing Staff in Handling Tuberculosis (TB) Patients at the Darul Imarah Health Center, Aceh Besar District; 2) To describe and analyze what are the Supporting and Inhibiting Factors for Nursing Services in Handling Tuberculosis (TB) Patients at the Darul Imarah Health Center, Aceh Besar District. Theoretical benefit, as an effort of researchers in transforming this research so that it becomes a contribution of thought to the development of studies to realize the systematic implementation of public policies with regard to a concept and/or theory that is developed through understanding, understanding in Nursing Services for Tuberculosis Patients at the Darul Imarah Health Center, Aceh Besar District. Practical Use. It is hoped that this research can serve as input as a basis for consideration in efforts to combat tuberculosis and resources for tuberculosis control at the Darul Imarah Health Center in Aceh Besar District. The research approach was carried out using a descriptive qualitative research approach, through research with benefits information using interview techniques, documentation, observations and conclusions were carried out to obtain Nursing Services for Tuberculosis Patients at the Darul Imarah Health Center, Aceh Besar District. This includes increasing the number of adequate nursing staff, increasing accessibility to training and education related to prevention, as well as increasing supervision and supervision of nursing staff for Tuberculosis Patients.*

**Keywords:** Health Center, Nursing Staff Services, Tuberculosis.

### 1. INTRODUCTION

Public service such as nursing staff services for tuberculosis patients at the Darul Imarah sub-district level, a number of people are still found as sufferers, so the government needs to monitor the existence of the community according to individual, regional and zone specifications of sufferers. In line with these developments, nursing service for tuberculosis patients is an activity carried out carefully in an effort to detect a disease by the government through medical and para-medical personnel for a number of people who have every profitable activity in a group or unit, and offer satisfaction despite the results. not tied to a physical product, but as a real action in curing disease.

This is as stated in articles 3 and 4 of the Regulation of the Minister of Health of the Republic of Indonesia Number 67 of 2016 concerning Tuberculosis Management, which states as follows: Article 3, Health Service Facilities are places used to carry out health service efforts, both promotive, preventive, curative and rehabilitative. by the Government, Regional Government, private sector and/or community; Article 4, The Central Government is the President of the Republic of Indonesia who holds the power of the government of the Republic of Indonesia assisted by the Vice President and ministers as intended in the 1945 Constitution of the Republic of Indonesia.

This is thanks to the dexterity, accuracy and ability of the government and all levels of healthy love society to be able to read the signs of the times from the causes and effects of society, along with the implementation of health which is prioritized, therefore the impact is immediately visible on The target of the national nursing service service program for Tuberculosis patients is elimination by 2035 and a TB-free Indonesia by 2050.

General description of citizen health that is universally oriented. Universal health coverage means that all people have access to the health services they need, when and where they need them, without financial hardship. It includes the full range of essential health services, from health promotion to prevention, treatment, rehabilitation, and palliative care. (Universal health coverage means that everyone has access to the health services they need, when and where they need them, without financial hardship. It covers a wide range of essential health services, from health promotion to prevention, treatment, rehabilitation, and palliative care).

This assumption is built so that an effort made by the government, working hand in hand with togetherness, is able to create reliable, dynamic health quality in people's lives by avoiding epidemic diseases in epidemic zones because this health cycle begins with *Mensana In Corpore Sano* (In a Healthy Body There is a Soul The Strong), this is real and its accountability has been proven to be true because people who exercise regularly will have a healthy/fit and healthy body, by increasing the body's immunity in maintaining stability.

In an effort to create a healthy society in the understanding that health is a human right, the 1945 Constitution of the Republic of Indonesia, which is described in article 28 H paragraph (1), states that "Health is a human right and at the same time an investment, so it needs to be pursued and fought for." and improved by each individual and by all components of the nation, so that society can enjoy a healthy life, and ultimately can realize optimal levels of public health."

The importance of improving a healthy society has become a national policy, with the consideration of helping to encourage the growth of national people who have resilience and fighting power, so that they are able to strengthen the spirit of togetherness which is an asset in the life of the nation and state.

According to Ngarawula Bonaventura (2019), states that "strength in the spirit of unity and oneness will be able to foster a spirit of nationalism so that it can make this nation richer and more competitive."

In this case, all levels of society, stakeholders and all components involved in health activities need to be carried out to anticipate health failures, because health is not the responsibility of the government alone, but in general is a joint responsibility of the government and society, including the private sector. Meanwhile, according to Sinambela (2010: 3), "Basically, every human being needs service, in the extreme it can even be said that service cannot be separated from human life."

Law Number 24 of 2011 concerning Social Security Administering Bodies (State Gazette of the Republic of Indonesia of 2011 Number 116, Supplement to State Gazette of the Republic of Indonesia Number 5256), Presidential Regulation Number 12 of 2013 concerning Health Insurance (State Gazette of the Republic of Indonesia of 2013 Number 29) as has been amended by Presidential Regulation Number 111 of 2013 concerning Social Security Administering Bodies.

Tuberculosis is still a public health problem that causes high levels of morbidity, disability and mortality, so efforts to control it need to be made as per Minister of Health Decree Number 364/Menkes/SK/V/2009 concerning Guidelines for Controlling Tuberculosis that need to be adapted to developments in medical science and legal needs.

According to Sampara Lukman, quoted by Sinambela (2014: 5), "Service is an activity or sequence of activities that occurs in direct interaction between a person and another person or physical machine, and provides customer satisfaction." Meanwhile, in the Big Indonesian Dictionary, service is described as the thing, method or result of serving work.

Apart from that, the lack of nursing services for tuberculosis patients often surprises the public so that the government quickly takes action to resolve the health problem so that it does not spread widely to the community.

In this way, the government is promoting nursing services for tuberculosis patients at Darul Iman health centers. Health programs are a form of health effort with community resources that are managed and organized from, and by, for and with the community in implementing health development.

In order to empower the community and make it easier for people to obtain basic health services, as a means of developing the quality of Human Resources (HR) in handling tuberculosis, hereinafter abbreviated as TB, is an infectious disease caused by *Mycobacterium tuberculosis*, which can attack the lungs and other organs.

In the development of nursing services for tuberculosis patients, according to Moenir (2015: 26), general services are activities carried out by a person or group of people based on factors through certain systems, procedures and methods in order to fulfill the interests of other people according to their rights. ; and the essence of public service is providing excellent service to the community which is a manifestation of the obligations of government officials as servants of the community.

Nursing services for Tuberculosis patients are basically all efforts made towards public health services that prioritize promotive and preventive aspects, without ignoring curative and rehabilitative aspects aimed at protecting public health, reducing morbidity, disability or death, stopping transmission, preventing drug resistance. and reduce the negative impacts caused by Tuberculosis.

The Central Government, Regional Government, Subdistricts to Gampongs and the community are responsible for providing nursing care for TB patients at community health centers as well as providing nursing care for Tuberculosis patients which is carried out through public health efforts and individual health efforts, but nursing staff services for Tuberculosis patients must be carried out in an integrated manner with related health program management.

Nursing staff services for TB patients in a tiered and integrated manner are carried out through collaborative activities between the programs concerned and activities that will be carried out as field actions, meaning that nursing staff services for TB patients are carried out in accordance with the principle of decentralization within the framework of regional autonomy with districts/cities as the focus of management. program, which includes: planning, implementation, monitoring and evaluation as well as ensuring the availability of resources (funds, personnel, facilities and infrastructure).

Discovery and treatment for nursing staff services for tuberculosis patients is carried out by all Health Facilities (Faskes) owned by both First Level (FKTP) which include Community Health Centers, Clinics, and Independent Practicing Doctors (DPM) as well as Advanced Level Referral Health Facilities (FKRTL) which including: Government, non-government and private hospitals, Lung Hospital (RSP), Center for Community Lung Health (B/BKPM). Anti-Tuberculosis Drugs (OAT) for nursing staff services to Tuberculosis patients are provided by the government and provided free of charge.

In optimizing the potential for public health through data collection on the administration of payment claims for examination and treatment of tuberculosis (TB) patients at the Darul Imarah Community Health Center, Aceh Besar District, efforts are made to grow and develop health. Nursing staff services for tuberculosis patients must be carried out in an integrated manner with related health program management.

TB bacilli are easily transmitted from active TB sufferers who produce saliva droplets through their coughs. However, when our body is healthy, the immune system can automatically eradicate incoming TB bacilli. It's just that there are times when the immune system fails to protect us from attacks by TB bacteria. Bacteria will die when exposed to sunlight. Germs will breed in damp places.

Basically, in the response, each Community Health Center must establish a work unit (team) which is responsible for managing the nursing service program for Tuberculosis patients. The work unit must have at least health personnel with competency in the field of public health and non-health personnel with certain competencies.

Puskesmas must appoint trained doctors, nurses and laboratory analysts who are responsible for implementing the nursing service program for Tuberculosis patients. The hospital must establish a DOTS (Directly Observed Treatment Shortcourse) Team which is responsible for implementing the nursing service program for Tuberculosis patients in the area and spread to the villages.

There are services for non-health workers (TNK) as workers who have received technical and management training in carrying out an auxiliary role in providing nursing care to Tuberculosis patients and controlling risk factors. In this way, all treatment activities are carried out effectively in mandatory health service facilities by recording and reporting every incident of TB disease.

Tuberculosis (TB) or also known by the abbreviation TBC is an infectious lung disease caused by the bacillus *Mycobacterium tuberculosis*. This disease is transmitted from active TB sufferers who cough and produce small droplets of saliva and are infected by healthy people who do not have immunity to this disease.

From the description above, Initial observations, in reality, nursing staff services for tuberculosis patients at the Darul Imarah Community Health Center, Aceh Besar Regency have the following dimensions: Nursing staff services in treating tuberculosis patients, the government's capacity is still limited in efforts to examine, treat and promote

Mycobacterium tuberculosis (TBC) health. consistently; and Nursing staff services in treating tuberculosis patients, intensive public health management is carried out so that people can stay healthy without being affected by transmission through Mycobacterium tuberculosis (TBC) surveillance.

Likewise in the expected quality of public health in the community Health promotion in the Handling of Tuberculosis (TBC) at the Darul Imarah Community Health Center, Aceh Besar Regency Article 17 paragraph (2) article 18 paragraph (1) and article 21 letters (a and d) Regulation of the Minister of Health Number 67 of 2016 concerning the Handling of Tuberculosis (TB ) through Resources in Handling Tuberculosis (TBC) at the Darul Imarah Community Health Center, Aceh Besar Regency, nursing staff services for tuberculosis patients, it is necessary to have reliable and professional human resources available in serving Mycobacterium tuberculosis (TBC) patients; and Nursing services for tuberculosis patients can effectively address the availability of medicines and health supplies in maintaining stable body stability.

## **2. LITERATURE REVIEW**

### **2.1. Public Policy Implementation Theory**

In the orientation of policy implementation, it is a crucial thing in the study of public policy because it contains philosophical, historical and sociological aspects, so it requires a certain theory in accordance with the specifications of the policy being made, for this reason, as Setiawan (2012: 14) states that "Theory is an opinion based on research and discoveries, supported by data and arguments or opinions, ways and rules for doing things".

The explanation desired in this implementation is simply that every policy that has been made is implemented so that elements of society know about it, so that as Edwar III in Santosa (2012: 41) states that "Policy implementation is the stage of policy making between the establishment of a policy" (policy making stage between policy formation)". Edwards III in Widodo (2012: 87) states that: To understand what actually happens after a program is enacted or formulated is the subject of policy implementation. Those events and activities that occur after the issuing of authoritative public policy directives, which include both the effort to administer and the substantives, which impacts on the people and event.

### **2.2. Public service theory**

In the theory of public service or public service as the provision of services by the government, private sector and/or third parties to the community without payment to meet their daily needs, for clarity, as Wasistiono in Hardiyansyah (2011: 11) states that "Public service is the provision of good services by the government, private parties on behalf of the government or private parties to the community with or without payment to meet the needs and/or interests of the community."

Basically, public service has 3 (three) meanings, namely the matter or method of serving, the effort to serve the needs of other people by obtaining monetary rewards and the convenience provided in connection with buying and selling goods or services. This assumption is in the view of Donald in Hardiyansyah (2011: 10) which states that "Services are basically activities or benefits offered by one party to another party and are essentially intangible and do not result in ownership of something, the production process may also not be associated with a physical production".

In subsequent developments, public services, etymologically, service comes from the word "serve" which means helping to prepare or take care of what a person needs, so that as Poerwadarminta in Hardiansyah (2011: 10) states as follows: Service can be interpreted as "things" or "how to serve", service or services, in connection with buying and selling goods or services. Services can be defined as activities provided to help prepare and manage goods or services from one party to another party.

### **2.3. Organization Theory**

In organizations there are various kinds of work so it is necessary to delegate activities/tasks through coordination so that these activities can run well by designing an ideal organization to be used as a modern organizational model. Strategically, Robbins in Fahmi (2016: 27) states that "Organizations are actually structured and offer information on how organizations can be configured to increase their effectiveness." An organization is formed to achieve common goals, but to achieve common goals effectively, good and correct management is needed so that the organization's resources are used so that the organization's life cycle can be carried out well. According to the views of Hodge and

Anthony in Purwanto (2013: 1.11), organizational theory is a group of concepts, principles and hypotheses used to explain organizational components and how these components apply. This means that organizational theory can help us understand what organizations are and how organizations relate to their environment, while management theory is an explanation of management practices, in other words, explaining how managers behave.

**2.4. Human Resources (HR) Theory**

Human Resources (HR) theory is actually a vehicle for empowering humans as resources for activities to achieve planned goals. Human resources are efforts made to develop existing resources to support future national-regional programs and search for ideal methods in facing global challenges. Human Resources (HR) as stated by Sedarmayanti (2014: 13) states that "Human resources are the policies and practices of determining "human" aspects or human resources in management positions, including recruiting, screening, training, rewarding and evaluating."

In this connection, global life is a challenge and opportunity that must be faced so that it will color the development and progress of a nation and state with the consequence that competition in the field of human resources becomes tighter and stronger. In Martoyo's view in Sudayat (2011: 13) states that "The aim of developing human resources is to improve the abilities, skills and attitudes of organizational members so that they are more effective and efficient in achieving program targets or organizational goals".

Human Resources (HR) is a very important factor that cannot even be separated from a government institutional organization, such as collecting administrative data on payment claims for examination and treatment of tuberculosis patients, through Minister of Health Regulation Number 67 of 2016 concerning Tuberculosis (TB) Management in Darul Imarah Community Health Center, Aceh Besar Regency, stated the following: Tuberculosis Control, hereinafter referred to as TB Control, is all health efforts that prioritize promotive and preventive aspects, without ignoring curative and rehabilitative aspects aimed at protecting public health, reducing morbidity, disability or death, stopping transmission, preventing drug resistance and reducing the negative impacts caused by Tuberculosis.

**3. RESEARCH METHODS**

**3.1. Research Approach**

Research using qualitative descriptive research as stated by Rakhmat and Kriyantono (2011: 120) as follows: Descriptive is research that only describes situations or events. This research does not look for or explain relationships, does not test hypotheses or make predictions. Qualitative descriptive research is research that is included in the type of qualitative research. The aim of this research is to reveal the facts, circumstances, phenomena, variables and conditions that occurred while the research was running and present them as they are.

**3.2. Research focus**

The research focus can change automatically and develop according to conditions in the field through identification and formulation of problems according to the dimensions and indicators of field research as follows:

- 1) Nursing Services in Handling Tuberculosis (TBC) Patients at the Darul Imarah Community Health Center, Aceh Besar Regency, with the following dimensions and indicators:

**Table 1. Dimensions and Indicators of Nursing Personnel Services**

| No. | Dimensions                            | Indicator  |
|-----|---------------------------------------|--|
| 1.  | Health Promotion                      | a. Commitment of Policy Makers;<br>b. Improving the Integration of Program Implementation;<br>c. Empowering the community;   |
| 2.  | TB surveillance                       | a. Active Data;<br>b. Passive Data;  |
| 3.  | TB Drug Administration and Prevention | a. Children aged under 5 (five) years who are in close contact with Active TB Patients;<br>b. People with undiagnosed HIV and AIDs (PLWHA).<br>c. Certain Other Populations. |

Source: Ps 6 (a, b, f) Ps 7 (1) Ps 9 paragraph (1), Ps 15 Permenkes No 67 of 2016

2) Supporting and Inhibiting Factors of Nursing Services in Handling Tuberculosis (TBC) Patients at the Darul Imarah Community Health Center, Aceh Besar Regency, with the following dimensions and indicators:

**Table 2. Dimensions and Indicators of Nursing Personnel Capacity**

| No. | Dimensions                                    | Indicator  |
|-----|---|--|
| 1.  | Human Resources                               | a. Health workers;<br>b. Non-Health Personnel;           |
| 2.  | Availability of medicines and health supplies | a. Anti-Tuberculosis Drugs;<br>b. Vaccines for immunity; |
| 3.  | Technology                                    | a. Diagnostic;<br>b. Risk control;                       |

Source: Ps 17 paragraph (2) Ps 18 (1) Ps 21 (ad) Minister of Health Regulation No. 67 of 2016.

**3.3. Data analysis technique**

The data was analyzed using several steps according to the theory of Miles, Huberman and Saldana (2014: 31-33), namely analyzing the data in three steps: data condensation, presenting the data (data display), and drawing conclusions or verification (conclusion drawing and verification). Data condensation refers to the process of selecting, focusing, simplifying, abstracting and transforming data.

**4. RESEARCH DISCUSSION**

**4.1. Nursing Services in Handling Tuberculosis (TBC) Patients at the Darul Imarah Community Health Center, Aceh Besar Regency**

**1) Health Promotion**

Health Promotion is the commitment of policy makers, the integration of program implementation, and empowering the community are interrelated and mutually reinforcing. When policy makers have a strong commitment, they can create policies that support community empowerment and the integration of health programs. On the other hand, program integration and community empowerment also encourage policy makers to be actively involved in advancing public health.

By combining these three elements, health promotion can be a comprehensive and sustainable approach. This can strengthen community awareness and participation in efforts to maintain their own health, as well as create an environment that supports a healthy lifestyle.

In general, health promotion in everyday life is understood as a science that helps people make their lifestyle optimally healthy. Optimal health is defined as a balance of physical health at the Darul Imarah Community Health Center, Aceh Besar Regency, emotional, social in solidarity, spiritual in building individual and intellectual beliefs in accordance with personal and/or group abilities.

In dealing with certain diseases that can cause epidemics as well as protecting the population from the disasters that outbreaks might cause as early as possible in order to increase people's ability to live healthily. The health department is basically health promotion as Nurianti (2015: 32) states as follows: Equating perceptions of health promotion and developing patterns of understanding among the general public with developments in the international world, in order for the concept of health promotion to be in accordance with health development in Indonesia, namely leading to a paradigm Healthy; and it is clear that efforts are needed to realize health promotion so that people are willing and able to maintain and improve their health, with socialization efforts, persuasive approaches in the following efforts to fulfill health promotion;

The main aim of health promotion is to build health together with individual creativity in carrying out all health promotion activities with the aim of providing information to the public regarding all matters aimed at improving the quality of health, both individual and community health.

Clean and Healthy Living Behavior (PHBS) is all health behavior carried out with awareness, so that family or family members can help themselves in the health sector and play an active role in health activities in the community. According to Shane and Vin Glinow in Wibowo (2014: 190) states that "Giving meaning to organizational commitment is the same as Affective Commitment, namely as an emotional connection to work, identification and

involvement in the organization". This understanding is carried out so that all activities are carried out with cleanliness, including the activities of examining and treating tuberculosis patients who need excellent health for a perfect human life.

**Inhibiting and supporting factors:** This research can discuss the factors that influence nursing staff services for TB patients, both internal and external. For example, availability of resources, institutional support, health team collaboration, communication barriers, and challenges in handling special cases such as patients with comorbidities or vulnerable groups.

**Service outcomes:** It is important to analyze the results of nursing staff services for TB patients, including patient compliance with treatment, cure rates, reduced recurrence rates, and improved patient quality of life. Evaluation of service results can provide insight into the effectiveness of services and the success of TB control programs in the Darul Imarah Community Health Center working area, Aceh Besar Regency.

If we look closely at the views of Dolbeare and Hammond in Winarno (2013: 104), they state that "National policy may only be the beginning of the decision process in determining what will happen to whom and understanding the next stage."

Behavior in individuals does not arise by itself, but as a result of stimuli that affect the individual. Behavior is an answer or response to existing stimuli, while response is a function that depends on the stimulus and the individual. This is a policy made by the government in dealing with infectious diseases so that they do not boomerang on other people.

Furthermore, this government policy from the central government to the regional governments, as Dolbeare and Hammond in Winarno (2013: 104) state as follows: "National policy is very important for a full understanding of politics" so that political scientists in implementing this policy also have the assumption that once a policy is made by the government, then the policy will be implemented and the desired results will be close to the results expected by the policy makers. The implementation process is considered to be a series of ordinary decisions and interactions that do not deserve the attention of scholars seeking political substance.

Thus, if we specifically touch on Affective Commitment, it is our emotional attachment and feelings of loyalty to the organization in carrying out the policy commitments that have been made as long as they do not conflict with the government and the state. By having the same vision and mission, the government is building unity as a forum that brings together various partners in TB control, including local NGOs, international NGOs, domestic and foreign donor agencies, former and observers of the TB problem. In empowering human resources to carry out risk control responsibilities, especially Tuberculosis which is still rampant in Indonesia, the Healthy Indonesia Program is implemented to improve the level of public health through health efforts and community empowerment supported by financial protection and equal distribution of health services.

**Challenges and recommendations:** In discussing this research, it is also necessary to include the challenges faced by nursing staff in treating TB patients as well as recommendations for improvement. These challenges may include limited resources, inadequate training, lack of public awareness, or infrastructure constraints. Recommendations prepared based on research findings can serve as a guide for the Darul Imarah Community Health Center, Aceh Besar Regency to improve nursing services for TB patients. Through this research, it is hoped that valuable information can be obtained for improving and developing nursing staff services in treating TB patients at the Darul Imarah Community Health Center, Aceh Besar Regency. The results of this research can also contribute to the development of TB control policies and programs more broadly.

Based on the discussion of Health Promotion at the Darul Imarah Community Health Center, Aceh Besar Regency, findings 1 (one) and 2 (two) were formulated as follows:

**Finding 1:** TB patients often face social stigmatization and psychological pressure. Health promotion in treating TB patients requires collaboration between various members of the health team, including nursing staff. Research shows that nursing staff services that provide emotional and social support can help reduce stigmatization, increase patient motivation in following treatment, and improve patient quality of life.

**Finding 2:** Health promotion also emphasizes the importance of monitoring and evaluating TB control programs. Nursing staff services can play a role in collecting data, tracking and monitoring patient progress, as well as reporting results and challenges faced in controlling TB at the Darul Imarah Community Health Center, Aceh Besar Regency.

Based on findings 1 (one) and 2 (two) regarding Health Promotion at the Darul Imanah Community Health Center, Aceh Besar Regency, proposition 1 (one) is formulated as follows:

**Minor Proposition1** : Health promotion designing and implementing targeted health education programs, including effective outreach, campaigns and communication activities to increase public knowledge about health and promote healthy behavior. Building partnerships with local organizations, communities, and other institutions involved in public health, such as educational institutions, non-governmental organizations, and other government agencies, to increase the effectiveness of health promotion.

## **2) TB surveillance**

TB surveillance, in order to improve TB surveillance, it is important to have a strong system for collecting, analyzing, reporting and using relevant data. Collaboration between various parties, including health facilities, laboratories, public health institutions, and health authorities, is also needed to ensure the quality and accuracy of TB data. By utilizing good TB surveillance, active data and passive data, it is hoped that a better understanding of TB prevalence, trends in the spread of the disease, the effectiveness of TB control programs, as well as expanding access to effective diagnosis and treatment services can be achieved. All of this will contribute to global efforts to combat TB and achieve sustainable TB control goals.

TB (tuberculosis) surveillance is the process of collecting, analyzing, interpreting, reporting and using data related to TB cases to understand disease patterns, monitor trends and identify areas or populations at high risk. The goal of TB surveillance is to support TB control efforts by identifying TB cases, monitoring the spread of the disease, and evaluating the effectiveness of interventions.

TB surveillance is an effort carried out together with the government, the community as well as stakeholders in the health sector in order to improve the ability to manage health data and information. A national Health Surveillance system is needed so that data and information are available regularly, continuously and validly as part of the decision-making process in this effort. health, both local and national, as well as contributing to global commitments.

Tuberculosis surveillance aims to promote health as Notoatmodjo (2012: 12) states, "Increasing the ability of individuals, families, groups and communities to be able to live healthily and develop community-based health efforts and create a conditional environment to encourage the formation of these abilities."

An active database, also called an Active database, is a database system that not only stores data but can also perform certain actions on an event by adding a dynamic element and has the ability to monitor events to detect when certain data is entered, deleted, changed, or is selected and then automatically executes an action in response to an event that occurs and certain conditions are met.

Conventional database systems are called passive databases in the sense that data manipulation can be carried out by the database only with commands given directly by the user or application programs located outside the database. Meanwhile, an active database is a development of a database that transfers the reactive nature of the program into the database.

One example of a function that can be efficiently performed by an active database, but in a passive database must be programmed in the application, is integrity constraints and triggers. Passive databases have limitations in controlling forms of integrity constraints such as certain data that must meet unique values or some data that must contain connections with other data.

TB surveillance involves collecting data on diagnosed and treated TB cases. Data collected include patient characteristics (such as age, gender, and risk factors), geographic (location of residence), laboratory test results, type of TB (pulmonary TB or extrapulmonary TB), as well as information about treatment and treatment results. Data collected in TB surveillance is then reported to the institution or system responsible for TB control, such as the Health Service. This reporting is important for monitoring and monitoring TB cases, as well as triggering appropriate responses and interventions.

Apart from that, when using triggers in passive databases, if there are changes to the constraints or triggers themselves, you must be able to find and modify the relevant program or code in each application. Meanwhile, an active database has the ability to control integrity constraints in the entire database and use triggers which are able to carry out an action when it detects a certain event without looking for relevant code in the application program to



change. Based on research conducted by Asif et al (2015: 14), it is stated as follows: From the results of the surveillance system evaluation carried out in Pakistan, it is known that good timeliness occurs because there is an application/software used by the agency to carry out reporting activities. Therefore, considering that problems are still found related to data validation activities, it is necessary to have an application media/software that can assist validation activities, can speed up validation activities, has high security, and is easy to operate. This needs to be done so that validation activities become more effective and efficient.

Schematically, the Health Surveillance work network can be described between the main units in the Ministry of Health and the Central Technical Implementation Unit (UPT Kemenkes), the research and development center (Puslitbang) and the data and information center, among the Darul Imarah Community Health Center, Aceh Besar Regency, government institutions in the Province. which is responsible for the health sector) and the Darul Imarah Health Center, Aceh Besar Regency, and among the work units of the Darul Imarah Health Center, Aceh Besar Regency (government institutions in the Regency/City that are responsible for the health sector).

Data collected from TB surveillance is analyzed and interpreted to identify disease trends and patterns, as well as associated risk factors. This analysis helps in understanding TB epidemiology and helps in planning more effective control strategies. TB surveillance can also help identify TB case clusters, namely groups of cases that have a close epidemiological relationship. Cluster identification can help uncover local TB transmission that occurs among certain individuals or communities, so that appropriate prevention and control measures can be taken. Program Evaluation: TB surveillance data can be used to evaluate the effectiveness of TB control programs. This evaluation includes measuring the achievement of TB control targets, evaluating interventions carried out, and identifying areas that require more attention in TB control programs.

In the Tuberculosis (TB) surveillance system, health has quality as Hasan & Abuelrub (2011: 79) states as follows: The quality of a page can be measured through 4 categories, namely, content (timely, relevant, multilingual/cultural, variety of appearance, accuracy, objective, and authority), design (attractive, accuracy, color, image/sound/video, and text), organization (index, mapping, link consistency, logo, and domain), and ease of use (user-friendly) which consist of from usability, reliability, interactive features, security/privacy, and customization; and this surveillance system will later become one of the governmental websites where apart from its characteristics, design, features that are common to government, other things that are no less important are those related to ease of access, quality and security.

Meanwhile, TB Surveillance Tuberculosis (TB) is one of the health problems in Indonesia and the world that has not been resolved. It is estimated that one-third of the world's population is infected with TB, with 8 million new cases occurring every year and 2 million deaths per year due to TB.

Drug Resistance Monitoring: TB surveillance is also important in monitoring TB drug resistance. Data on the incidence of drug-resistant TB is collected and analyzed to understand the level of drug resistance, the types of drugs that are resistant, and the factors that contribute to drug resistance. This information helps in planning appropriate TB treatment and ensures the effectiveness of treatment. TB surveillance is an important component in TB control efforts. With appropriate data collection, sound analysis, and consistent reporting, TB surveillance can provide a better understanding of TB epidemiology and guide more effective control measures. Assessment of the surveillance system attributes shows that the system is not simple, not flexible, not acceptable, unstable, with poor data quality, even though the Predictive Positive Value is high and the timeliness of data collection is good.

Health Surveillance (SK) is very important for decision makers in the health sector in the context of efforts to improve the level of public health as high as possible. For the implementation of optimal Health Surveillance (SK), the participation of all sectors is required, especially all health service facilities owned by the government or the community, health agencies both at the regional level and at the center.

Based on the discussion of TB Surveillance at the Darul Imarah Community Health Center, Aceh Besar Regency, findings 3 (three) and 4 (four) were formulated as follows:

**Finding 3:** TB surveillance needs to be reported regularly to the authorities, such as the Health Service or related agencies. This reporting is important for monitoring and monitoring TB cases, as well as triggering appropriate responses and interventions. Consistent and accurate reporting helps in evidence-based decision making and effective policy planning.

**Findings4 :** Data collected and TB surveillance results can be used to inform TB control decisions and actions. This data can help in planning more effective TB control programs, allocating appropriate resources,

improving prevention and treatment interventions, as well as evaluating the success of the programs carried out.

Based on findings 3 (three) and 4 (four) regarding TB Surveillance at the Darul Imanah Community Health Center, Aceh Besar Regency, proposition 2 (two) is formulated as follows:

**Minor Proposition 2:** TB surveillance is important in TB control efforts. By conducting regular TB surveillance and using the data obtained, it can help in better understanding the epidemiology of TB, identifying areas or populations at high risk, as well as planning and implementing appropriate interventions to reduce the burden of this disease.

### **3) TB Drug Administration and Prevention**

TB Drug Administration and Prevention, in order to deal with TB effectively, TB drug administration and prevention must be an integral part of a comprehensive TB control strategy. By increasing understanding and awareness of the risk of TB in exposed children under 5 years of age, undiagnosed PLWHA, and other certain populations, and by providing access to appropriate diagnosis, treatment, and prevention services, it is hoped that this can be reduced.

Combination Drug Therapy TB treatment is carried out using a combination of several antibacterial drugs, which usually consist of isoniazid, rifampicin, pyrazinamide, and ethambutol. Administering these drugs in the right combination and regularly is very important to prevent drug resistance and stop the growth of TB bacteria. The duration of treatment usually lasts 6 to 9 months.

Tuberculosis (TB) prophylaxis can be carried out by providing preventive TB therapy to patients at high risk or to patients who have latent TB infection. Ministry of Health (2016a) states that "Tuberculosis is a direct infectious disease caused by TB germs (*Mycobacterium Tuberculosis*). Most TB germs attack the lungs, but can also affect other body organs. Pediatric TB occurs in children aged 0-14 years."

Apart from that, prophylaxis can also be carried out in healthy people through vaccination. Indonesia is included in the top 6 countries with the most cases of tuberculosis in the world, so clinicians need to understand the appropriate method of TB prophylaxis. The bacterium *Mycobacterium tuberculosis* was first discovered by Robert Koch in (1882).

Tuberculosis bacteria enter the body through the respiratory tract into the lungs, then spread from the lungs to other parts of the body through the circulatory system, lymphatic channels and respiratory tract or spread directly to other parts or organs. Providing TB Preventive Medicine Ministry of Health (2011: 11) states as follows: Tuberculosis is an infectious disease caused by germs from the *Mycobacterium* group, namely *Mycobacterium Tuberculosis*. A direct infectious disease caused by TB germs (*Mycobacterium Tuberculosis*), most of which attack the lungs, but can attack other body parts or organs.

Prevention of tuberculosis (TB) in community life is carried out as an action through the availability of Health Service Facilities, either in the form of places used to provide health service efforts, or in a supportive nature, whether promotive, preventive, curative or rehabilitative, carried out by the Government, Regional Government, private sector and/ or society. Providing TB Preventive Medicine, according to Tjiptono (2015: 387), states that "Promotion is an element of the marketing mix that focuses on efforts to inform, persuade and remind consumers and/or publicize brands and products.

The health care environment is an environment that is vulnerable to becoming a place for TB transmission. Health service management needs to take preventive measures, including: administrative measures, environmental control, and personal respiratory protection.

Early detection and treatment of active TB cases is very important to prevent the spread of the disease. People who have TB symptoms such as a cough that lasts more than two weeks, fever, weight loss, and persistent fatigue should seek immediate medical care. People infected with active TB must follow preventive measures to prevent transmission to others. This involves keeping your distance from others, covering your mouth when coughing or sneezing, and maintaining personal hygiene by washing your hands regularly. People who are at high risk of developing TB, for example those who have direct exposure to active TB sufferers or those with positive tuberculin test results, can be given preventive therapy. Preventive therapy involves using TB drugs to prevent disease progression in infected people.

In understanding HIV/AIDS, as Najmah (2016: 12) states as follows: HIV/AIDS is an abbreviation for Human Immunodeficiency Virus, namely the virus that causes AIDS (Acquired Immune Deficiency Syndrome). AIDS is an advanced stage of HIV infection that causes several other infections. The virus will worsen the immune system and HIV/AIDS sufferers will end up dying within 5-10 years if without adequate treatment. HIV is a pathogenic organism that causes AIDS. The retro virus that causes HIV is transmitted through blood, serum, semen, body tissue and other body fluids.

Based on the discussion of TB Drug Administration and Prevention at the Darul Ijarah Community Health Center, Aceh Besar Regency, findings 5 (five) and 6 (six) were formulated as follows:

**Findings 5:** Limited access to health services in Darul Ijarah District, Aceh Besar Regency, especially in remote areas, access to health services is inadequate and TB medicines are limited. It should look for ways to improve the accessibility of health services, including more efficient drug distribution and prevention programs that are accessible to all levels of society.

**Findings 6 :** The stigma against tuberculosis is still a significant problem. This can hinder prevention and treatment efforts, as well as reduce patient compliance. Therefore, research must pay attention to efforts to increase public awareness about tuberculosis, eliminate stigma, and provide a holistic approach in drug administration and TB prevention in Darul Ijarah District, Aceh Besar Regency.

Based on findings 5 (five) and 6 (six) regarding TB Drug Administration and Prevention at the Darul Ijarah Community Health Center, Aceh Besar Regency, proposition 3 (three) is formulated as follows:

**Minor Proposition 3:** The importance of adequate resources, competency of medical personnel, availability of drugs, prevention programs, external collaboration, and regular monitoring and evaluation in TB control at the Darul Ijarah Community Health Center, Aceh Besar Regency. By fulfilling this proposition, it is hoped that community health centers can provide optimal services to TB patients and be able to reduce the burden of disease significantly.

## **4.2. Capacity of Nursing Personnel in Handling Tuberculosis (TBC) Patients at the Darul Ijarah Community Health Center, Aceh Besar Regency**

### **1) Human Resources**

Human Resources, as a whole, human resources, both in the form of health workers and non-health workers, are an important pillar in providing quality health services. Investment in sustainable development, training and management of health human resources is essential to achieve optimal public health goals.

The capacity of nursing staff in treating Tuberculosis (TBC) patients at the Darul Ijarah Community Health Center, Aceh Besar Regency may consist of several aspects including knowledge, skills, experience and available resources. Knowledge about Tuberculosis (TB). Nursing staff at the Community Health Center must have adequate knowledge about TB, including causes, symptoms, diagnosis, treatment and preventive measures. They must understand in depth how TB is transmitted, and know how to identify and manage patients infected with TB.

Professional human resources are the responsibility of the government to achieve the targets of the National TB prevention, control and cure program. The Government, Provincial Governments and Regency/City Regional Governments must set regional level TB control targets based on a comprehensive and recorded movement of the tuberculosis cycle in the regions. each.

In this development, according to Notoadmojo (2013: 87), "Knowledge is a very important domain for the formation of a person's actions (overt behavior), because behavior that is based on knowledge will be more lasting than behavior that is based on knowledge."

Every ability and mastery of work means that a person has competence in the health sector, which grows and develops in social life based on the Decree of the Minister of Health of the Republic of Indonesia Number 1193/2004 which states that "Regarding the National Health Promotion Policy. In carrying out health promotion, the Hospital must also determine the target of these health promotion activities". These target needs can be programmed, implemented and accounted for with competence.

Health workers based on the Law of the Republic of Indonesia concerning Health Number 36 of 2014 concerning Health Workers, as an act of every person who dedicates themselves to the health sector and has knowledge and skills through education in the health sector for certain types that require authority to carry out health efforts.

**Training and Development:** Darul Imarah Community Health Center needs to provide regular training for nursing staff to increase their understanding of TB. This training may include the latest guidelines in TB treatment, examination techniques, treatment, and case management. In addition, training can also include effective communication with TB patients and good therapeutic approaches.

Health workers also have an important role in improving the maximum quality of health services to the community so that people are able to increase awareness and willingness. The specific aim of cross-program collaboration is to foster cooperation within teams and further foster cross-sectoral collaboration. Cross-sector collaboration involves agencies and people outside the health sector which is a joint effort to influence factors that directly or indirectly affect human health. Team Coordination, TB control requires good teamwork between doctors, nurses and other health workers. Good coordination between nursing staff and other medical teams will help ensure that TB patients receive holistic and integrated care.

According to Rachmawati (2018: 110) states that "Training is an environmental forum for employees, where they acquire or learn specific attitudes, abilities, skills, knowledge and behavior related to work". Cross-sector and/or cross-program as a program that involves a state or private institution or agency that requires empowerment and basic strength from the government or private sector regarding the regulations set to realize alternative policies in an integrated and comprehensive manner so that there are decisions and cooperation. Likewise, the understanding of health workers and non-health workers, as Notoatmodjo (2017: 42) states as follows:

By combining adequate knowledge, skills, experience and resources, nursing staff at the Darul Imarah Community Health Center, Aceh Besar Regency can have adequate capacity in treating TB patients. It is important for them to continuously increase their capacity through training, professional development and pen renewal

In determining the steps forward for the capabilities of health workers and/or non-health workers, competence is needed as Wibowo (2013: 86) states that "The definition of competency according to is the ability to carry out or carry out a job or task based on the skills and work knowledge required by the job."

The government continuously prevents, checks and treats Tuberculosis (TB), which is still one of the public health problems in the world even though efforts to control TB have been implemented in many countries since 1995.

In understanding health competency as Robbin 2014: 38) states that "The definition of competency according to Stephen Robbin is a person's ability or capacity to carry out various tasks in a job, where this ability is determined by two factors, namely intellectual ability and physical ability."

**Qualifications and Skills:** Nursing personnel involved in TB control must have appropriate qualifications and skills. They must have adequate knowledge about TB, including handling, monitoring and preventing this disease. They must also be able to perform a tuberculin test and interpret the results. Additional education and training about TB can be provided to increase their competence in handling TB cases.

**Human Resources (HR)** in treating Tuberculosis (TBC) patients at the Darul Imarah Community Health Center, Aceh Besar Regency is an important element in providing health services to TB patients. Adequate nursing staff capacity is needed to improve the quality of care, supervision and treatment of TB patients. The following is an explanation of the human resource capacity of nursing staff in treating TB patients at the Darul Imarah Community Health Center, Aceh Besar Regency.

**Number of Nursing Personnel.** It is important to know the number of nursing staff available at the Darul Imarah Community Health Center. Adequate numbers will ensure that TB patients receive adequate and attentive care. Local governments and Puskesmas management need to ensure that there are enough nursing staff available.

By having adequate and well-trained nursing staff capacity, the Darul Imarah Community Health Center can provide optimal services in treating TB patients. It is important to continue to increase the capacity of the nursing workforce through education, training and ongoing support.

Based on the discussion of Human Resources at the Darul Imarah Community Health Center, Aceh Besar Regency, findings 7 (seven) and 8 (eight) were formulated as follows:

**Findings 7:** Lack of Qualifications and Skills or Resources Nursing personnel involved in TB control may not have adequate qualifications and skills. They may not have sufficient understanding of TB, surveillance methods, treatment, and prevention. This can hinder effective efforts to treat TB cases and reduce the quality of care provided.

**Findings 8 :** It is important to carry out a comprehensive evaluation of human resources at the Darul Imarah Community Health Center, Aceh Besar Regency. This evaluation can involve interviews, surveys, observations and analysis of existing HR performance data. By identifying relevant human resource problems, planning and implementing strategies can be carried out to increase the capacity and quality of services in treating TB patients.

Based on findings 7 (seven) and 8 (eight) regarding Human Resources at the Darul Imarah Community Health Center, Aceh Besar Regency, proposition 4 (four) is formulated as follows:

**Proposition 4:** Lack of Qualifications and Knowledge about TB. Nursing staff may have limitations in the qualifications and knowledge needed to effectively treat TB patients. They may not have an adequate understanding of TB, including treatment, monitoring and prevention of this disease. This can affect their ability to provide appropriate and up-to-date care to TB patients. Capacity of Nursing Personnel in Handling Tuberculosis (TBC) Patients at the Darul Imarah Community Health Center, Aceh Besar Regency.

## **2) Availability of medicines and health supplies**

Availability of adequate medicines and health supplies is a key factor in ensuring universal access to health services. In the context of TB, the availability of sufficient and high-quality anti-TB drugs is essential for effective TB treatment and controlling the spread of the disease. Apart from that, health supplies that include adequate medical facilities, equipment and workforce are also needed to provide quality health services. In order to achieve optimal public health goals, it is important to ensure the availability of adequate medicines and health supplies, including anti-TB drugs and vaccines for immunity.

Availability of medicines at the Darul Imarah Community Health Center must ensure the availability of medicines needed for the treatment of TB patients. This includes anti-TB drugs used in standard treatment regimes, such as isoniazid, rifampicin, pyrazinamide, ethambutol, and streptomycin (if needed). Community health centers must have sufficient stock to meet patient needs and avoid drug shortages that could interfere with the smooth running of treatment. In addition, these medications must be stored properly in accordance with established storage guidelines and requirements.

In line with the national target for the availability of medicines and health supplies at the Darul Imarah Community Health Center, Aceh Besar District, taking into account the National Strategy. By understanding this structuring, the target to be achieved is protecting public health from TB transmission so that morbidity, death and disability do not occur, but under controlled conditions.

In general, carrying out health activities requires competence as a reaction to the ability a person has to carry out, master and complete actions according to their field of work based on abilities and skills in a professional, effective and efficient manner.

In addition, it is important to have a good inventory management system at the Community Health Center. This involves monitoring and controlling supplies of anti-TB drugs and tools and equipment related to TB control. Puskesmas also need to collaborate with related parties, such as the Health Service, to ensure a guaranteed sustainable supply of medicines and health supplies.

Comprehensive TB control efforts are carried out through Gerdunas-TB which is a cross-sector partnership forum under the coordination of the Coordinating Minister for Human Development and Culture, and the person in charge of technical TB control, namely the Indonesian Minister of Health. In its implementation, the National TB program is carried out by the Directorate General of Disease Control and Environmental Health, cq. Directorate of Directly Infectious Disease Control.

Meanwhile, at the provincial level, Gerdunas-TB Province consists of a Steering Team and a Technical Team. The organizational form and structure are adapted to regional needs. The implementation of the TB program at the provincial level is coordinated by the Provincial Health Service, District/City Health Service. In this development, at the Regency/City Level. At the regency/city level, Gerdunas-TB regency/city consists of a Steering Team and a Technical Team. The organizational form and structure are adapted to the needs of the district/city. The implementation of the TB program at the Regency/City level is coordinated by the Regency/City Health Service at the Community Health Center level in the District.

In the orientation of responsibility as a potential source of health, it is explained in the ownership of Human Resources (HR) and Equipment Resources (SDA) as facilities and infrastructure owned in overcoming tuberculosis. For this reason, as according to Setiawan (2012: 14) states that "Theory is an opinion based on research and discovery, supported by data and arguments or opinions, ways and rules for doing something".

Therefore, government policy regarding responsibility is crucial in the study of public policy because it contains philosophical, historical and sociological aspects, so it requires a certain theory in accordance with the policy specifications made by the government with the relevant theory.

With the availability of adequate medicine and adequate health supplies, the capacity of nursing staff in treating TB patients at the Darul Imarah Community Health Center, Aceh Besar Regency will be increased, enabling optimal service to TB patients and effective treatment of this disease.

Based on the discussion of the availability of medicines and health supplies at the Darul Imarah Community Health Center, Aceh Besar Regency, findings 9 (nine) and 10 (ten) are formulated as follows:

**Findings 9** : Limited tools and equipment at the Community Health Center may not have the tools and equipment needed to treat TB patients. This may include shortages of tuberculin probes, sputum sampling devices, or consumables such as respiratory protective masks or medical gloves. Limited maintenance and equipment replacement. Limited funds or lack of proper maintenance and replacement of equipment can be a problem in maintaining the availability of necessary equipment.

**Findings 10** : Lack of training and updated knowledge, nursing staff may lack training or lack updated knowledge regarding the use of anti-TB drugs, infection prevention measures, or TB case management. Lack of training and updated knowledge can affect the ability of nursing staff to provide quality care to TB patients. Lack of collaboration and coordination with referral centers or other institutions that provide special medicines or more specific equipment in TB control can make it difficult to access the necessary resources.

Based on findings 9 (nine) and 10 (ten) regarding the availability of medicines and health supplies at the Darul Imarah Community Health Center, Aceh Besar Regency, proposition 5 (five) is formulated as follows:

**Proposition 5**: Providing training and updating knowledge to nursing staff at the Darul Imarah Community Health Center regarding the use of anti-TB drugs, supply management, and infection prevention measures will increase their competency in treating TB patients and managing health supplies. Increasing accessibility to the tools and equipment needed to control TB, such as tuberculin measuring tools, sputum sampling tools, and consumables, will strengthen the ability of nursing staff to carry out service actions safely and effectively.

### **3) Technology**

Technology has a crucial role in developing and improving health services. Technological innovations in the health sector, such as electronic health information systems, telemedicine, and wearable technology, can improve the accessibility, efficiency, and quality of health services. Appropriate use of technology can facilitate the collection, analysis, and exchange of health data, as well as strengthen communication between healthcare providers and patients. Technology is very important in efforts to improve the quality of health services, prevent disease, and reduce the burden of disease. Collaboration between related parties, such as government, researchers, technology manufacturers and health professionals.

Health provision technology is a tool or system used to increase the capacity of nursing staff in treating Tuberculosis (TBC) patients at the Darul Imarah Community Health Center, Aceh Besar Regency. The following is a more detailed explanation of health provision technology in this context.

In view of advanced technological capabilities, the government is making every effort to improve health which is built on its own capabilities and supported by medical experts who specialize according to needs and are able to control technological advances.

In the development of medical and other medical technology which is owned as a support for work activities and following the globalization of technology, the target to be achieved is to improve health as high as possible for the Indonesian people as a whole because it is an inseparable part of national development goals, such as single diversity.

The main thing, even though it is carried out through promotion, is as stated by Maulana (2012: 42) as follows: Health promotion requires human resources who understand the function and importance of health promotion because officers who work or are placed in the field of Hospital Health Promotion (PKRS) do not yet understand with its duties, it will be difficult to achieve the goal of improving the level of public health.

Health diagnosis is an inseparable part of the health service program in hospitals. A hospital is a health service agency that has a direct relationship with patients, so hospitals must provide health services that are safe, quality, non-discriminatory and effective, according to a person's perception or understanding which can be influenced by knowledge, attitudes, actions as well as the demands of rules or policies. that supports a particular activity.

In the various alternatives developed by the government as an integrated discussion, the government remains consistent. The formation of the National Integrated Movement (Gerdunas) for TB is proof of the strong political commitment to expand the implementation of the DOTS strategy with the participation of various related sectors in overcoming TB.

The government and health facilities have an obligation to control and improve the services provided to the community. Law Number 44 of 2009 which explains the realization of the highest level of health for the community, various kinds of health efforts are carried out in an integrated and comprehensive manner for individual and community health.

Telemedicine technology allows long-distance communication between nursing staff at Community Health Centers and TB patients. By using telemedicine, nursing staff can consult, monitor and educate patients virtually. This can increase the accessibility of care, reduce the travel burden for patients, and allow for more regular interactions between nursing personnel and patients.

The use of rapid diagnostic tools, such as molecular tests or other rapid tests, can help nursing staff diagnose TB more accurately and quickly. This tool can help identify TB patients early, start treatment in a timely manner, and reduce the spread of the disease.

The quality of health services can be seen from the availability of health services that care about patient needs and expectations. Patient scores can be a benchmark for the provision of health services. Fitriani (2011: 65) states this as follows: Being one of the conditions that must be fulfilled, to realize a comprehensive level of public health, improving health in Indonesia is aimed at being able to implement the vision of "Healthy Indonesia" which is the hope for the Indonesian nation in the future. future so that they can live in a healthy environment. In this way, the population has clean and healthy living behavior which enables them to be able to access quality, fair and equitable health services in achieving optimal health.

Patient monitoring technology, such as remote monitoring devices or wearable sensors, can help nursing staff monitor patient conditions continuously. This tool can measure patient health parameters, such as body temperature, heart rate, or oxygen levels, and provide early warning if there are changes that require medical attention. The application of this health provision technology at the Darul Imarah Community Health Center can improve efficiency, accuracy and quality of service in treating TB patients. However, it is also important to ensure that nursing personnel have sufficient training to use this technology appropriately and effectively.

Based on the discussion of technologists at the Darul Imarah Community Health Center, Aceh Besar Regency, findings 11 (eleven) and 12 (twelve) were formulated as follows:

**Findings 11:** Limited access and infrastructure, Community Health Centers may face limited access to technology such as internet or stable electricity. This can hinder the implementation of technology and its use in health services. Lack of knowledge and skills, nursing staff at Community Health Centers may have limited knowledge and skills in using health technology. Lack of training or updated knowledge can make it difficult to utilize technology optimally.

**Findings 12:** Insufficient system integration, if the technological systems used in the Community Health Center are not well integrated, there may be obstacles in exchanging information between systems. This can hamper the efficiency and quality of services provided. Data privacy and security, protecting the privacy and security of patient data are important things in the use of health technology. If there are not adequate measures to protect patient personal data, this can raise legal and ethical issues.

Based on findings 11 (eleven) and 12 (twelve) of Technologists at the Darul Imarah Community Health Center, Aceh Besar Regency, proposition 6 (six) is formulated as follows:

**Proposition 6:** Community health centers can adopt patient monitoring technology, such as remote monitoring devices or wearable sensors, to monitor the condition of TB patients in real-time. This technology will help in monitoring health parameters, provide early warning of changes, and facilitate more regular interactions between patients and nursing staff. Community health centers need to strengthen technological infrastructure, including stable internet access, adequate hardware, and regular maintenance. Adequate infrastructure will support the effective use of technology and overcome obstacles related to limited access.

Based on propositions 1 (one) to 6 (six) as mentioned above, the major proposition is formulated as follows:

**Major Propositions:** Nursing services in treating tuberculosis patients are carried out through health promotion, designing and implementing targeted health education programs, including counseling, campaigns and effective communication activities to increase public knowledge about health and promote healthy behavior, can increase accessibility to tools and equipment. needed in TB control, such as tuberculin measuring tools, sputum sampling tools, will strengthen the ability of nursing staff to carry out service actions safely and effectively.

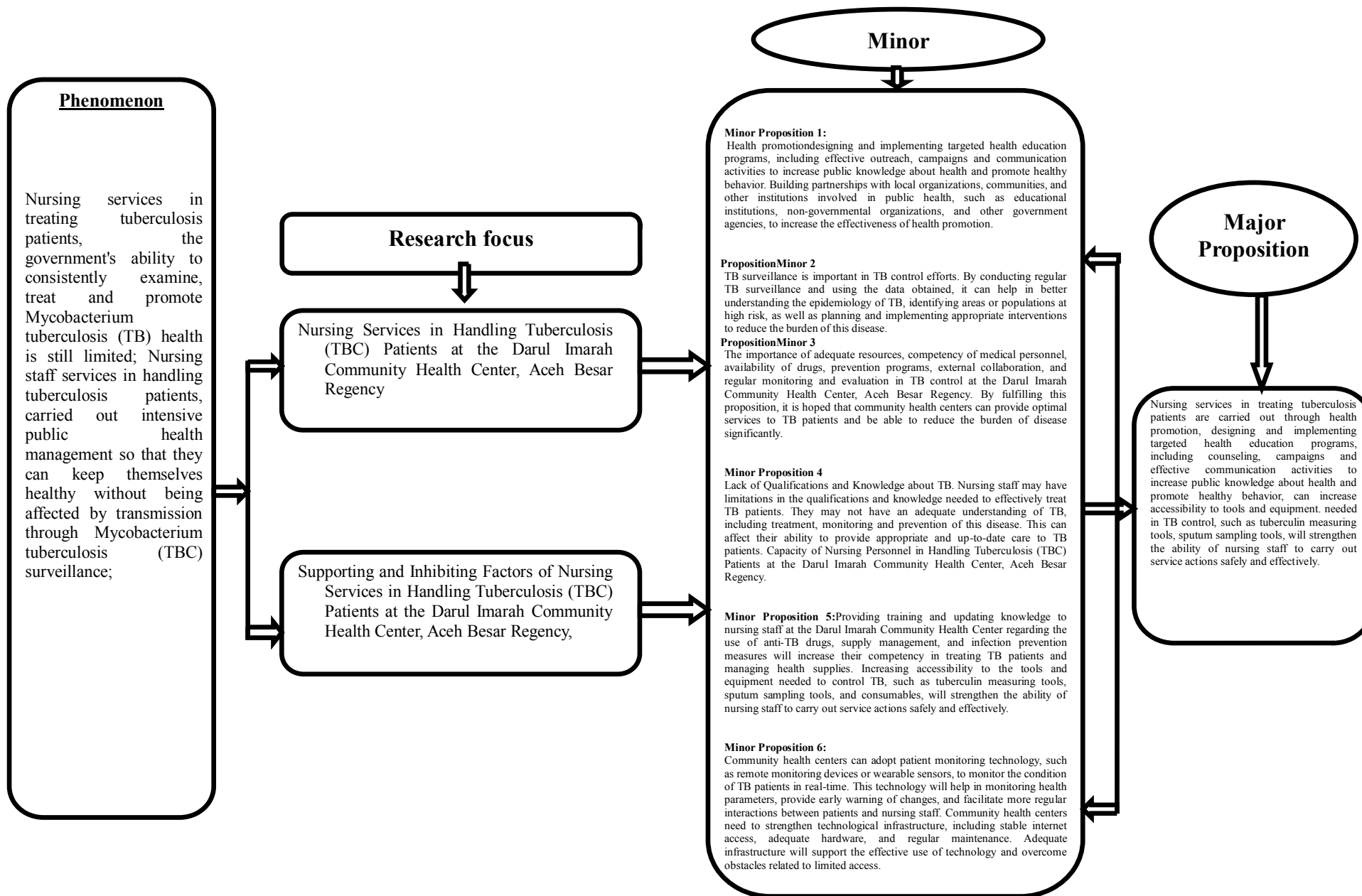
**Practical implications,** By taking these steps, the Darul Imanah Community Health Center, Aceh Besar Regency can improve nursing staff services for TB patients in accordance with the Regulation of the Minister of Health of the Republic of Indonesia Number 67 of 2016. This will contribute to improving the quality of life of TB patients, effective disease control, and efforts to prevent the spread of TB in the community.

Human Resources (HR) is a very important factor that cannot even be separated from a government institutional organization, such as collecting administrative data on payment claims for examination and treatment of tuberculosis (TB) patients at the Darul Imanah Community Health Center, Aceh Besar Regency, through Minister of Health Regulation Number 67 of 2016 concerning Tuberculosis (TB) Management, states as follows: Tuberculosis Management, hereinafter referred to as TB Management, is all health efforts that prioritize promotive and preventive aspects, without ignoring curative and rehabilitative aspects aimed at protecting public health, reducing morbidity and disability. or death, interrupt transmission, prevent drug resistance and reduce the negative impacts caused by Tuberculosis.

In line with these developments, as mAccording to Sutrisno (2014: 3) states as follows: Human resources are the only resources that have feelings, desires, skills, knowledge, encouragement, power and work (ratio, taste and intention); and All human resource potential influences the organization's efforts to achieve its goals.

Human Resources are also a factor that influences the development of an organization, a government institution can develop very rapidly if it has many human resources who are competent in their field, the development of an organization, a government institution.





## 5. CONCLUSIONS AND RECOMMENDATIONS

### 5.1. Conclusion

Based on research results and discussion regarding Nursing Staff Services in Handling Tuberculosis (TBC) Patients at the Darul Imarah Community Health Center, Aceh Besar Regency, it can be concluded as follows:

- 1) Nursing Services in Handling Tuberculosis (TBC) Patients at the Darul Imarah Community Health Center, Aceh Besar Regency.

The Darul Imarah Community Health Center, Aceh Besar Regency has provided important nursing services and plays a role in treating Tuberculosis (TB) patients. Nursing staff play a role in providing quality care and treatment to TB patients, including monitoring health conditions, drug administration, as well as assistance and education to patients and their families.

Nursing staff at the Darul Imarah Community Health Center, Aceh Besar Regency have carried out their roles and responsibilities well in managing TB services. They are equipped with the knowledge and skills necessary to care for TB patients, including an understanding of TB treatment protocols, management of drug side effects, and regular monitoring of patient health status.

Nursing services provided at the Darul Imarah Community Health Center, Aceh Besar Regency include collaborative efforts with other health workers, such as doctors and pharmacists, to ensure coordinated and comprehensive treatment of TB patients. This collaboration is important to support appropriate monitoring, good medication management, and effective communication with patients and their families.

Darul Imarah Community Health Center, Aceh Besar Regency also pays special attention to assistance and education to TB patients and their families. Nursing staff provide emotional support, provide clear information about TB disease, treatment methods, and steps to prevent the spread of infection. This helps patients and their families understand their condition, increases compliance with treatment, and reduces stigmatization of TB patients.

Continuous efforts are made to improve the quality of nursing services for TB patients at the Darul Imarah Community Health Center, Aceh Besar Regency need to be maintained. This includes continuous training and development of nursing staff in the field of TB treatment, understanding new developments in TB treatment, as well as improving skills in providing emotional support and education to patients.

Good and comprehensive nursing service is an important factor in the treatment and control of TB. Darul Imarah Community Health Center, Aceh Besar Regency has demonstrated commitment to providing optimal nursing services to TB patients. Continuing efforts to improve services and collaboration between different health workers will help improve treatment outcomes and reduce the burden of TB disease in the region.

- 2) Capacity of Nursing Personnel in Handling Tuberculosis (TBC) Patients at the Darul Imarah Community Health Center, Aceh Besar Regency

Darul Imarah Community Health Center, Aceh Besar Regency has nursing staff who have adequate capacity in treating TB patients. Nursing staff are equipped with the knowledge and skills necessary to provide quality care to TB patients, including monitoring, drug management, and patient education.

Nursing staff at the Darul Imarah Community Health Center, Aceh Besar Regency have undergone appropriate training and education in controlling TB. They have an understanding of TB treatment protocols, recognition of TB symptoms and signs, as well as an understanding of efforts to prevent the spread of infection.

Darul Imarah Community Health Center, Aceh Besar Regency has developed a good monitoring and evaluation system to measure the performance of nursing staff in treating TB patients. This allows for regular assessment of the quality of nursing staff services and identification of areas that need improvement.

Collaboration between nursing staff and other health workers, such as doctors, pharmacists and laboratory staff, is very important in controlling TB. Darul Imarah Community Health Center, Aceh Besar Regency has formed a coordinated work team to provide comprehensive care and treatment to TB patients, ensuring effective communication and mutual support between professionals.

Institutional support and good management for nursing staff at the Darul Imarah Community Health Center, Aceh Besar Regency also play an important role in increasing their capacity in controlling TB. Puskesmas provides support in the form of ongoing training, performance monitoring, and meeting the resource requirements needed to carry out tasks well.

Continuous efforts to develop the capacity of nursing staff in TB control must be maintained. This includes following the latest developments in TB treatment, attending related training and workshops, as well as continuing to increase inter-professional collaboration in providing services to TB patients.

The capacity of nursing staff at the Darul Imarah Community Health Center, Aceh Besar Regency is an important asset in treating TB patients. Through good knowledge, skills and collaboration, they contribute significantly to providing effective care and improving the health outcomes of TB patients in the region.

## **5.2. Suggestions**

Based on the discussion above, the following suggestions can be concluded:

### **1) Nursing Services in Handling Tuberculosis (TBC) Patients at the Darul Imarah Community Health Center, Aceh Besar Regency**

**Improving training and education:** Carrying out current and ongoing training and education for nursing staff regarding TB management. This includes an in-depth understanding of TB treatment protocols, management of drug side effects, as well as strategies for preventing and controlling the spread of infection.

**Optimizing health team collaboration:** Encouraging closer collaboration between nursing staff and other health workers, such as doctors, pharmacists and laboratory staff. This will strengthen coordination and integration of TB care, as well as ensure effective communication in decision making regarding patient treatment.

**Improving monitoring and evaluation:** Developing an effective monitoring and evaluation system to monitor the quality of nursing staff services for TB patients. This can be done through regular reporting, case reviews and the use of relevant performance indicators. This data can be used to identify areas of improvement and implement necessary corrective actions.

**Improving patient assistance and education:** Paying special attention to assistance and education to TB patients and their families. Nursing staff must provide adequate emotional support, as well as clear and comprehensive information about TB disease, the treatment given, and steps to prevent the spread of infection. This support can help increase patient compliance with treatment and reduce the stigmatization that TB patients may experience.

**Using appropriate technology:** Utilizing information and communication technology to improve nursing services for TB patients. For example, using electronic health information systems to track and monitor patient care, as well as facilitating communication between nursing staff and patients.

**Encourage research and development:** Encourage research and development in the field of TB control, especially those related to the role and contribution of nursing staff. This will help increase understanding of the role of nursing staff in treating TB and strengthen the evidence that supports best practices in nursing services to TB patients.

**Strengthening collaboration with communities:** Building close collaboration with local communities to increase awareness about TB, reduce stigmatization, and promote active community participation in TB prevention and control efforts. It is hoped that the implementation of these suggestions can improve nursing services for TB patients at the Darul Imarah Community Health Center, Aceh Besar Regency and contribute to effective control of TB disease.

### **2) Capacity of Nursing Personnel in Handling Tuberculosis (TBC) Patients at the Darul Imarah Community Health Center, Aceh Besar Regency**

**Continuous training and education:** Providing the latest training and education continuously to nursing staff regarding TB management. In this training, focus on in-depth understanding of TB treatment protocols, monitoring patient conditions, management of drug side effects, and the latest treatment techniques.

**Increasing knowledge about infection prevention and control,** ensuring nursing staff have adequate knowledge about preventing and controlling the spread of TB infection. Provide training on effective hygiene measures, use of personal protective equipment, and safe handling practices.

**Interprofessional collaboration:** Encouraging close collaboration between nursing staff and other health workers, such as doctors, pharmacists and laboratory staff. With good collaboration, a coordinated work team will be created that is able to provide comprehensive care and ensure good coordination in the treatment management of TB patients.

Improved communication skills, Develop effective communication skills to interact with patients and their families. Good communication will help strengthen relationships with patients, increase understanding of their condition, and increase adherence to treatment.

Establishment of work networks, Encourage participation in professional work networks that focus on TB control. Through this network, nursing staff can share knowledge, experience and best practices in treating TB. Networks can also facilitate collaboration between community health centers and other health institutions to improve TB services.

Increased access to resources, ensuring the availability of resources needed for TB treatment, including drugs, medical equipment and the latest clinical practice guidelines. Adequate resources will help nursing staff provide quality care to TB patients.

Evaluation and feedback, Conduct regular evaluations of the performance of nursing staff in treating TB patients. Use feedback from patients, families, and colleagues to identify strengths and areas for improvement. With continuous evaluation, continuous improvement and development can be made in nursing staff services.

The theoretical implications above reflect the important role of nursing staff in treating TB patients. With the right knowledge, skills and approach, they can contribute significantly to efforts to treat this disease. These implications focus on an in-depth understanding of TB, infection surveillance skills, planning and implementation of treatment programs, psychosocial support, and health education and promotion. By implementing these implications, nursing staff can help improve treatment outcomes, reduce the spread of disease, and improve the quality of life of TB patients.

This action is taken by the government to be able to empower the community so that they can maintain harmonization of this infectious disease in an integrated manner because it is possible for the whole to understand the advantages and disadvantages of treating a disease so that in medical calculations as the Director General of Disease Prevention and Control, Ministry of Health (2017: 10) states as follows:

The source of infection is TB patients, especially patients who contain TB germs in their phlegm.

- a. When coughing or sneezing, patients spread germs into the air in the form of droplet nuclei. Infection will occur if a person inhales air containing infectious phlegm.
- b. One cough can produce around 3000 splashes of phlegm containing 0-3500 M. tuberculosis germs. Meanwhile, if you sneeze, you can release as much as 4500-1,000,000 M. tuberculosis.

In terms of orientation, policy implementation is a crucial thing in the study of public policy because it contains philosophical, historical and sociological aspects, so it requires certain theories in accordance with the policy specifications made by the government. The primary targets of health promotion efforts are actually patients, healthy individuals and families (households) as components of society. They are expected to change their unclean and unhealthy living behavior into a clean and healthy living behavior (PHBS).

The practical implications above provide direction for nursing staff services in treating Tuberculosis (TB) patients. By implementing this approach, it is hoped that comprehensive, effective and holistic care can be provided to TB patients.

Schematically, the Health Surveillance work network can be described between the main units in the Ministry of Health and the Central Technical Implementation Unit (UPT Kemenkes), the research and development center (Puslitbang) and the data and information center, among the Darul Imarah Community Health Center, Aceh Besar Regency, government institutions in the Province. which is responsible for the health sector) and the Darul Imarah Health Center, Aceh Besar Regency, and among the work units of the Darul Imarah Health Center, Aceh Besar Regency (government institutions in the Regency/City that are responsible for the health sector).

Another classification has the Health Surveillance Partnership interconnection as in letter (c) number 3 of the Regulation of the Minister of Health of the Republic of Indonesia Number 45 of 2014 concerning the Implementation of Health Surveillance, which states as follows:

- a. Interconnection with provincial networks and city district networks, in accordance with the concept and objectives of the health program. This interconnection is important to facilitate data exchange, comparison and periodization in each Health Service Facility, health agency starting from the district/city, provincial and central level health agencies that carry out health surveillance.

- b. Sectoral data and information support is needed to strengthen health surveillance. For example, projections of the population of certain age groups in certain city districts can be obtained from the Central Statistics Agency, information on rainfall, temperature and humidity and predictions can be obtained from the Meteorology, Climatology and Geophysics Agency, and so on.

Patient Education by Nursing staff must provide education to patients about TB, including how it is transmitted, symptoms, treatment, and the importance of compliance with therapy. This helps patients understand their condition and take steps to reduce the risk of transmission to others. Early Identification and Assessment Nursing personnel must have a good understanding of the symptoms of TB and the ability to identify potentially infected patients. Isolation and Infection Control of Nursing personnel must ensure that TB patients are properly isolated to prevent the spread of infection to other people in the care environment. They must follow strict infection control guidelines, including the use of personal protective equipment such as respirator masks, gloves, and protective clothing.

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