# THE SUCCESSFUL FACTORS TREATMENT OF MB TYPE LEPROSY IN THE WORKING AREA OF JENU PUBLIC HEALTH CENTER, TUBAN REGENCY

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**Abstract**

*Leprosy is a chronic infection caused by Mycobacterium leprae which if not treated immediately will become progressive. The government has a treatment success target of >90%, but in some areas the effort to eradicate leprosy type MB is still slow* [1]. *The purpose of this study was to determine the success factors for the treatment of MB type leprosy in the working area of the Jenu Public Health Center, Tuban Regency.*

*The research design used was descriptive, cross sectional time approach. The population is all patients with leprosy who seek treatment in the working area of the Jenu Public Health Center for a cohort period of 76 months (January 2016-April 2022) as many as 35 people, the sampling technique used is total sampling. Research instruments in the form of questionnaires and observation sheets*

*The results of the study were obtained from 35 patients with MB type leprosy almost entirely (82.9%) were found without disability, all (100%) immediately received treatment, all (100%) received good family support, all (100%) the role of health workers was good.*

*The success of treatment for leprosy type MB requires support from the family and the surrounding community, the family is the closest person who can supervise and control thepatient's condition. Treatment of leprosy also requires the role of health workers because health workers can provide encouragement to patients, in addition, if the patient has not taken the medicine, the health worker will come to give the medicine. Efforts to find and treat patients with MB type leprosy are very important, for this reason, family and community support are needed so that there is no feeling of shame and immediately comes to the nearest health service.*

**Keywords**: *success factors, treatment*

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## 1. INTRODUCTION

Leprosy is a disease whose initial symptoms are marked by the appearance of red or white patches on the skin which if not treated immediately can cause disability so that it often results in discrimination both for sufferers and their families. In general, sufferers are not aware that these signs are symptoms of leprosy, so case detection is delayed. Even though leprosy patients who have not undergone treatment have the potential to spread germs through droplets or wounds on the skin (Kementerian Kesehatan RI, 2018).

The duration of treatment for the wet type of leprosy is for 12 months and for the dry type for 6 months which requires regularity in treatment as the main key. The government has a treatment success target of > 90%, but in some areas efforts to eradicate MB leprosy are still slow (Rustam, 2018). Based on Zahnia's 2020 research that out of the total sample available, 50% of the samples were successful in treatment and 50% of the samples failed in treatment, the success of treatment was determined through Release from Treatment (RFT) (Zahnia, 2017).

Based on WHO data for 2020, Indonesia ranks number 3 for countries that contribute new cases of leprosy, which is around 8%. In Indonesia in 2018 the prevalence and detection rate of new cases of leprosy was 0.70 per 10000 population with 17,017 new cases 62.7% had dry leprosy (Pausi Basiler) and 85.46% had wet leprosy (Multi Basiler) (Kementerian Kesehatan RI, 2019), in 2019 the prevalence and detection rate of new cases of leprosy in Indonesia reached 0.74 per 10,000 population with the reporting rate of new cases reaching 17,439 cases of leprosy of which 85% of them had wet leprosy (Multi Basiler)(Kementerian Kesehatan RI, 2020), in 2020 the prevalence and rate the discovery of new cases of leprosy in Indonesia has decreased, namely at 0.49 per 10,000 population and it was reported that there were 11,173 new cases in Indonesia, 86% of them suffering from wet leprosy (Multi Basiler) (Kementerian Kesehatan RI, 2021a).

The prevalence of new leprosy cases in East Java in 2018 reached 0.93 per 10,000 population with the number of new cases of 3098 people with details of 297 people with dry leprosy (Pausi Basiler) and 2,801 with wet leprosy (Multi Basiler) (Dinkes Jawa Timur, 2020), then decreased in in 2019, namely at 0.83 per 10,000 population with a new case reporting rate of 2,899 cases, 235 of whom suffered from dry leprosy (Pausi Basiler) and 2,664 suffered from wet leprosy (Multi Basiler) (Dinkes Jawa Timur, 2020), and decreased again in 2020, namely 0.53 per 10,000 population with reporting of new cases of 1,829 cases with 130 people suffering from dry leprosy (Pausi Basiler) and 1,699 cases of wet leprosy (Multi Basiler) (Dinas Kesehatan Provinsi Jawa Timur, 2020).

In 2019, in Tuban district, the prevalence of leprosy in Tuban reached 1.4 per 10,000 population, which means that Tuban district has not yet reached the targeted leprosy elimination rate. with wet leprosy (Multi Basiler) (Dinas Kesehatan Kabupaten Tuban, 2019). Whereas in 2020 Tuban district has achieved a leprosy elimination rate with a prevalence of 1.1 per 10,000 population with the discovery of 81 new cases, 3 people with dry leprosy (Pausi Basiler) and 78 others suffering from wet leprosy (Multi Basiler) (Dinas Kesehatan Kabupaten Tuban, 2020). Of the 33 puskesmas in Tuban district, the Jenu puskesmas ranks 30th for leprosy patients who have completed treatment (Release From Treatment) in detail as described below:

**Table 1.1: Number of Leprosy Patients Completing Treatment (Release from Treatment) at Jenu Health Center in 2019-2021**

| No | Year | New Case | | Cured | | RFT | |
|----|------|----------|----|-------|----|-----|----|
| | | PB | MB | PB | MB | PB | MB |
| 1 | 2019 | 0 | 6 | 0 | 9 | 0 | 8 |
| 2 | 2020 | 0 | 3 | 0 | 10 | 0 | 8 |
| 3 | 2021 | 0 | 0 | 0 | 2 | 0 | 1 |

Source: Dinkes Tuban Year 2019-2021

The data above shows that the number of lepers following the treatment program is 9 people and 8 people have completed treatment or 88.9% (Dinas Kesehatan Kabupaten Tuban, 2019). Whereas in 2020 the number of sufferers who took part in the treatment program was 10 people and those who completed their treatment were 8 people with a percentage of 80%. And in 2021 there will be 2 people taking part in leprosy treatment with a successful percentage of 50% and 50% unsuccessful. From these data it can be seen that the number of patients who complete leprosy treatment has not reached the government's target of >90% (Dinas Kesehatan Kabupaten Tuban, 2020).

The success factors for leprosy treatment are influenced by several factors, namely disease detection and early treatment, personal characteristics (age, gender, education, income), knowledge, medication adherence, family support, access to health services, and the role of health workers in providing information (DA, 2012). Whereas other sources from research conducted by Rustam in 2018 there was an influence between adherence to taking medication for MDT treatment, out of 57 people who adhered to taking medication as many as 56 people or 98.2% RFT while only 1 person or 1.8% did not adhere to RFT and those who did not adhere to taking medication medication as many as 7 people who did not comply or 18.9% had RFT and 30 people or 81.1% did not have RFT. This research is in line with Fenty Anggiriawati in 2010

that there is a relationship between regularity of treatment and recovery in patients with multibasilar type leprosy (Rustam, 2018). Then Mayam Tami's 2019 study stated that a higher presentation of treatment success occurred in the male sex group (Tami, 2019).

Disability and paralysis, and is what sufferers fear the most if treatment is not complete, because it can interfere with social and economic life of sufferers (Siswanto & Mulyana, 2020). As a result, leprosy sufferers tend to be alone and will reduce their social activities to the point that they become dependent on other people and are embarrassed to seek treatment. Meanwhile, the treatment of MDT in leprosy is very important in eliminating leprosy in addition to adherence to taking medication and health services. Irregular or complete treatment of leprosy according to a doctor's prescription can result in immunity or resistance(FKUI, 2019). In addition, incomplete treatment of leprosy can lead to resistance and a source of transmission (Siswanto & Mulyana, 2020).

In addition to the MDT (Multi Drug Therapy) treatment, the termination of leprosy transmission can be through isolation of leprosy sufferers, BCG vaccination (Siswanto & Mulyana, 2020). Patients and families also receive counseling and education from health workers regarding treatment and modes of transmission, families are also asked to become PMOs (Puskesmas Kedungrejo, 2021). In addition, the Ministry of Health of the Republic of Indonesia provides financial support to the regions so that efforts can be made through advocacy, outreach, training, early detection and active discovery in order to achieve leprosy elimination in 2024 (Kementerian Kesehatan RI, 2021b)

## 2. METHODS

The research design used is a descriptive research design. The population in this study were all lepers of the MB type (Multibacillary) with a cohort period of 76 months (January 2016-April 2022) in the working area of the Jenu Health Center, Tuban Regency, with a total of 35 people. The sample size used was 35 people. The technique used is total sampling. The variables in this study were: success factors in the treatment of MB type leprosy. The instruments used were questionnaires and observation sheets. Data analysis in this study used a data processing procedure by describing and summarizing data scientifically in the form of tables or graphs.

## 3. RESULTS AND DISCUSSION

### 3.1 Research Results

### 3.1.1 Description of the Research Location

The location in this study was at the Jenu Public Health Center, Tuban Regency. The Jenu Health Center is a health service for the Tuban district which has a working area of 17 villages in the Jenu sub-district, which is located on Jl. Raya Jenu No. 90 Beji Village, Kec. bored.

MB type leprosy patients who took part in treatment from January 2016 to April 2022 in the work area of the Jenu Public Health Center, Tuban district, are spread over 10 villages. The 10 villages that have MB type leprosy have a distance of more than 2 KM from the puskesmas, with several villages not served by public transportation. In addition, generally villagers work as farmers or agricultural laborers and fishermen where the work is a type of manual worker work where the workers require quite a lot of energy which will have an impact on decreasing stamina and decreasing immune response so that the possibility of the risk of developing diseases such as leprosy is higher. In making efforts to control infectious diseases, one of which is leprosy, the Jenu Health Center is making efforts to find and treat early leprosy patients by forming leprosy cadres who have been given counseling and then run the leprosy early detection program. A person who has been diagnosed with leprosy will be given MDT (Multi Drug Therapy) and to prevent disability, POD (Prevention of Disability) is done every month during the treatment period. In undergoing treatment for 12 months and requiring high regularity, the family usually has a role as a drug supervisor whose job is to ensure that sufferers take medication according to schedule. In addition, counseling was also carried out to patients and their families regarding leprosy, but some of the patients still believed that leprosy was not contagious due to the experience that so far they had used equipment together but other family members were not infected.

From January 2016 to April 2022, there were 35 patients who had participated in the treatment program. 30 of them were declared RFT, 1 person DO and 4 people are undergoing treatment

### 3.1.1 Specific Data

**1. Disease detection and early treatment**

**Table 5.1 Distribution of Findings of MB Type Leprosy Patients in May 2022 in the Work Area of the Jenu Health Center, Tuban Regency**

| No | The Invention of illness | Frequency | Procentage (%) |
|----|--------------------------|-----------|----------------|
| 1. | No disability | 29 | 82,9 % |
| 2. | Disability | 6 | 17,1 % |
| | ∑ | 35 | 100% |
| No | Early cured | Frequency | Procentage (%) |
| 1. | **Direct cure** | 35 | 100 % |

| 2. | Indirect cure | 0 | 0 |
|---|---|---|---|
| | ∑ | 35 | 100% |

Based on table 5.1, it was found that almost all MB type leprosy patients were found to be without disability (82.9%) and all MB type leprosy patients immediately took treatment after being diagnosed with leprosy (100%).

### 2. Personal Characteristics (Age, Gender, Education, Income)
**Table 5.2 Distribution of Personal Characteristics of Leprosy Type MB Patients in May 2022 in the Working Area of the Jenu Health Center, Tuban Regency**

| No. | Age | Frequency | Procentage(%) |
|---|---|---|---|
| 1. | 12-25 year | 4 | 11,4% |
| 2. | 25-45 year | 13 | 37,2% |
| 3. | 46-65 year | 18 | 51,4% |
| | ∑ | 35 | 100% |
| | **gender** | | |
| 1. | Men | 27 | 77,1 % |
| 2. | Women | 8 | 22,9 % |
| | ∑ | 35 | 100% |
| | **Education** | | |
| 1. | College | 1 | 2,9 % |
| 2. | Senior High School | 4 | 11,4 % |
| 3. | Junior High School | 6 | 17,1% |
| 4. | Elementary Schoool | 24 | 68,6% |
| | ∑ | 35 | 100 % |
| | **Salary** | | |
| 1. | >Rp.500.000 | 17 | 48,6 % |
| 2. | <Rp.500.000 | 18 | 51,4 % |
| | ∑ | 35 | 100 % |

From table 5.2 it was found that the majority of MB type leprosy in the age group of 46-65 years (54.1%), almost all of them were male (77.1%), the education level of most of them was elementary school (68, 6%), income mostly <Rp. 500,000 (51.4%).

### 3. Knowledge of Medicine

**Table 5.3 Knowledge Distribution of MB Type Leprosy Patients in May 2022 in the Work Area of the Jenu Health Center, Tuban Regency**

| No | Knowledge | Frequency | Procentage (%) |
|---|---|---|---|
| 1. | Good knowledge | 10 | 28,6 % |
| 2. | Less Knowledge | 25 | 71,4 % |
| | ∑ | 35 | 100 % |

From table 5.3 it is found that most of the MB type leprosy sufferers are less knowledgeable (71.4%), especially on questions regarding the transmission of leprosy.

### 4. Medication Compliance

**Table 5.4 Distribution of Compliance with Taking Medication for Leprosy Patients Type MB in May 2022 in the Working Area of the Jenu Health Center, Tuban Regency**

| No | Medication Compliance | Frequency | Procentage (%) |
|----|----|----|----|
| 1. | Good compliance | 4 | 11,4 % |
| 2. | Less Compliance | 30 | 88,6 % |
| | ∑ | 35 | 100% |

Based on table 5.4, it was found that almost all MB type leprosy patients had poor adherence (88.6%) in terms of taking MDT medication.

### 5. Family Support

**Table 5.5 Distribution of Support for Families of Leprosy Type MB in May 2022 in the Work Area of the Jenu Health Center, Tuban Regency**

| No | Family Support | Frequence | Procentage (%) |
|----|----|----|----|
| 1. | Good Support | 35 | 100 % |
| 2. | Less Support | 0 | 0 |
| | ∑ | 35 | 100% |

From table 5.5 it was found that all sufferers received good family support (100%) in assessment, instrumental, informative and emotional support.

### 6. Access to Health Services

**Table 5.6 Distribution of Access to Health Services for Leprosy Type MB Patients in May 2022 in the Work Area of the Jenu Health Center, Tuban Regency**

| No | Access to health service | Frequence | Procentage (%) |
|----|----|----|----|
| 1. | Good Access | 0 | 0 |
| 2. | Bad Access | 35 | 100 % |
| | ∑ | 35 | 100% |

From table 5.6 it is found that all access to poor health services (> 2 Km) is (100%).

### 7. The Role of Health Officers in Providing Information

**Table 5.7 Distribution of the Role of Health Officers in Providing Information to MB Type Leprosy Patients in May 2022 in the Working Area of the Jenu Health Center, Tuban Regency**

| No. | The Role of Health Officers | Frequency | Procentage (%) |
|----|----|----|----|
| 1. | Good Role | 35 | 100 % |
| 2. | Bad Role | 0 | 0 |
| | ∑ | 35 | 100% |

From table 5.7 it is found that all roles of health workers are good (100%)

### 3.2 Research Discussion

### 3.2.1 Disease detection and early treatment

Based on the results of the study, it was known that almost all MB type leprosy patients were found without any disability and all underwent immediate treatment after being diagnosed with leprosy.

Treatment-seeking behavior (Health Seeking Behavior) is the behavior of people or people who are experiencing illness or health problems, to obtain treatment in order to recover or overcome their health problems (S, 2010). In Rustam's 2014 study, leprosy treatment is very important in eradicating leprosy because the key to recovery is regular treatment. MDT treatment is proven to control leprosy. Especially when patients are detected early and start treatment without delay (Fatmala, 2016).

Disability occurs when patients with MB type leprosy are diagnosed late and do not receive MDT, so they have a high risk of experiencing nerve damage(Noviastuti & Soleha, 2017). The magnitude of the risk of disability in patients with leprosy reactions is 9 times compared to patients who have never experienced a reaction. This is because in the reversal reaction there is an increase in the cellular immune response resulting in damage and disability that occurs within days if not handled adequately. This is one of the factors that causes disability to occur more frequently in early adulthood (18-40 years) (Catrina et al., 2016). The small number of patients with leprosy reactions who are recorded as experiencing complications may be due to cases of leprosy reactions that are monitored and immediately referred to and treated with leprosy reactions.

The results of Cardona and Castro's (2013) study stated that the disability rate reached 30% (grades 1 and 2) when it was first discovered. This figure is indicated as a consequence of the delay in finding new cases (Kamal & Martini, 2015). According to research by Amrina Yulita (2021), health workers explain that if they find a patient positive for leprosy, they will immediately be treated. In general, sufferers come when the condition is severe (Amrina Yulita, 2021).

The success of treatment is influenced by disease detection and early treatment, patient adherence to treatment, family and community support, and the skills of staff in preventing disabilities (Rimbi, 2014).

Factors that cause sufferers to be late for treatment at the puskesmas/health facility, namely

1) not knowing the early signs of leprosy, 2) being embarrassed to come to the puskesmas/health facility, 3) having a puskesmas that is not ready, 4) not knowing that medicine is available free of charge in puskesmas, and 5) the distance of the patient to the health facility is too far (Kemenkes RI, 2012).

From this description, it shows that early detection of leprosy cases, before disability occurs is very important because if disability occurs, it will leave remnants or scars, even if treated and healed, and not contagious. However, it is this residue that causes stigma in the community, so that leprosy sufferers of the MB type feel ashamed to be honest with their families, let alone come to have a check-up at a health service. For this reason, it is necessary to add insight for the community about leprosy so that it does not create a bad stigma about leprosy so that sufferers who experience signs and symptoms of leprosy can come to health services themselves, besides this can help health workers in efforts to find and treat early . There is awareness and motivation of sufferers to seek treatment as well as the role of the family to help lepers in undergoing treatment until the treatment is successful.

### 3.2.2 Personal Characteristics

From the research that has been done, it was found that most of the MB type leprosy patients were in the age group of 46-65. Almost all patients with type MB leprosy are male. The educational level of leprosy type MB is mostly elementary school. The majority of leprosy patients with the MB type have an income of <Rp. 500,000.

Productive age can be infected with leprosy because at this age a person is able to interact socially and interact with his environment. If the body's immune system is weak, it is easy to get infected. High mobility and a lot of social interaction with the environment also make it easier for someone to contract leprosy if their immune system is weakened (Pringgandani et al., n.d.). The slow multiplication of leprosy germs takes up to 20 hours, therefore the incubation period in the human body reaches 5-7 years so that leprosy rarely attacks the age group 0- 14 years (Darmada, 2018). Based on research (Zakiyyah et al., 2015) that age does not affect adherence to treatment because the desire/motivation to seek treatment is not only carried out in certain age groups.

Gender has a close relationship with determining attitudes and behavior. Differences in status and social roles between men and women result in the emergence of different patterns of behavior (Madyasari et al., 2017). Leprosy is more common in men than in women, the ratio is almost 2:1. Transmission in men related to daily activities. One of the factors that can transmit leprosy, men generally work more than women, this is related to customs, men as heads of families are required to work to meet the needs of the family Manyullei & Deddy, (Yusuf & Paramata, 2018).

Education affects a person, including behavior towards lifestyle, especially motivating the attitude of participation in development (Notoatmojdo, 2003).

Family income is the accumulation of the work of all family members who are used to meet common needs. Income is an important thing in survival which will affect the level of welfare Astuti (2016) as quoted from (Yusuf & Paramata, 2018).

Grigoriev & Grigorieva (2011) as quoted from (Rakasiwi & Kautsar, 2021) stated in their research if someone with low income tends to have worse health status compared to someone with high income. Based on research (Fatmala, 2016), patients with low income are more adherent to taking medication than those who are not adherent to taking medication.

The success of leprosy treatment is not influenced by a certain age group because adherence to treatment is influenced by the patient's motivation to seek treatment. There are more male patients with type MB leprosy, this is because men have a higher risk of leprosy transmission due to their activities in earning a living. The regularity of the treatment of MB type leprosy is not influenced by the level of education because education can be meaningful if the education taken is active, active in terms of understanding the lessons learned. In addition, patients with income <Rp. 500,000 do not affect patient adherence to taking medication because MDT treatment depends on the patient's awareness and willingness and leprosy treatment is provided by the puskesmas free of charge so that the patient only needs to come to the puskesmas to pick up medicine.

### 3.2.3 Knowledge of Medicine

Most of the leprosy type MB have knowledge about the treatment of leprosy in the less category, especially on questions regarding the transmission of leprosy.

Knowledge is a result obtained by someone based on the senses they have about an object (T, 2018). Knowledge is all that is known according to experience and knowledge can increase according to the series of experiences experienced (Mubarak, 2011). According to Wawan Dewi 2011 there are 2 factors that influence knowledge, namely internal factors including education, employment, age and external factors in the form of environmental and socio- cultural factors (Wawan & Dewi, 2011). Rustam's 2018 research shows that there is a relationship between knowledge and medication adherence (Rustam, 2018). Based on Fatmala's research, it was found that the risk of patients not adhering to taking medication in patients with low knowledge was 7.36 times greater than patients with high knowledge (Fatmala, 2016).

According to the Indonesian Ministry of Health (2008), a drug taking supervisor (PMO) is someone who is appointed and trusted to supervise and monitor MB type leprosy patients taking medication regularly and thoroughly. The Drug Supervisory Board (PMO) comes from family, neighbours, cadres, community leaders or health workers. The Medication Supervisor (PMO) plays a role in observing the regularity of patients taking medication according to a predetermined dose and time (Departemen Kesehatan R.I, 2008).

From the description of the theory that people with low knowledge have the possibility of remaining successful in treatment if the supporting roles such as supervisors taking medication and family are good. Besides that, based on the results of the study, the majority of MB type leprosy patients answered the question of transmission of leprosy not according to the answer key. This means that MB type leprosy sufferers lack knowledge in terms of transmission, not knowledge about treatment. So it is necessary to socialize knowledge about leprosy to be better, especially in transmission, prevention and treatment

### 3.2.4 Medication Compliance

Based on the results of the study, it was found that almost all MB type leprosy patients in the working area of the Jenu Public Health Center, Tuban Regency, had poor adherence. Based on the questionnaire, there were many answers that did not match the answer key to the question "Did you take leprosy medicine yesterday?" this is because almost all respondents have completed treatment.

Adherence to taking medication is the activity of patients taking or repeating drug prescriptions on time, in practice it will involve patients and information providers (health workers) (Fauzi & Nishaa, 2018). Compliance is defined as the degree to which the patient is conformity to the drug regimen (interval and dose) as prescribed by a doctor's prescription (Zeber et al., 2013).

According to Kozier (2010) adherence is an individual's behavior in taking medication, adhering to a diet, or changing lifestyles according to therapy and health recommendations. The level of compliance starts from the recommended actions to comply with the plan (Kozier et al., 2009).

There are several factors that affect adherence in using drugs which are divided into three elements, namely Adherence to medications, namely the process of taking/using drugs as previously determined, consisting of: initiation, implementation, and discontinuation. Management of adherence is the process of monitoring and supporting patient adherence to treatment by health systems, service providers, patients and social networks. Adherence-related sciences are disciplines that seek to understand the causes of the discrepancy between prescribed drugs and actual drug use (Aini & Puspitasari, 2021)

. Based on Saskara Edi's research, adherence to taking medication is influenced by several things, namely: socio-demographic factors (age, gender, ethnicity, race, and culture), socio-economic (income, culture, economic and geographical conditions), patient characteristics (health beliefs, discipline, and awareness), psychosocial (psychiatric, low personality, pessimistic, narrow-minded, and lazy), drug characteristics (regimen, duration of therapy, price, side effects, unwanted events), disease characteristics, facilities and health

workers ( ease of accessing health facilities, responsiveness of officers, empathy, and ability of health workers), communication, social capital that influences adherence namely social support, provision of education, counseling programs (Edi, 2015).

From the description it is known that most of the MB type leprosy sufferers lack adherence, this is because of the 35 respondents 30 of them have completed treatment, 1 DO and 4 people are currently undergoing treatment, therefore the question "did you take leprosy medicine yesterday" there are many answers that do not match the answer key and make the assessment of compliance reduced. In MB type leprosy patients who have not had RFT, there are several causes, namely due to drug side effects or reactions that lead to the belief that the drugs being consumed are not suitable. Even though dealing with chronic diseases requires adherence to taking daily medication in order to achieve the desired degree of health. Therefore the family is expected to be the main support system for MB type leprosy. (Erviana et al., 2018)

### 3.2.5 Family Support

From the results of the study it was found that all MB type leprosy patients received good family support (support in the form of assessment, instrumental, informative and emotional).

The family is the smallest unit of society consisting of the head of the family and several people who gather and live in one place under one roof and are interdependent (Widagdo et al., 2016).

Family support is an intervention that involves the family as psychosocial support for sufferers. As is well known, the family is the smallest and closest unit to the sufferer and serves as a caregiver (providing care at home) for the sufferer (Hidayati et al., 2019).

There are 4 types of family support, namely informational support in providing an explanation of the disease and how to treat it, secondly, assessment support in providing motivation to undergo treatment, being a supervisor for taking medication or reminding people to take medication regularly, thirdly, instrumental support as an introduction during control and providing food. , toiletries and other patient needs, the four emotional supports are provided by the availability of the family to listen to the patient's complaints (Watung, 2021).

Based on this description it is known that all leprosy sufferers of the MB type receive good support from their families, in this case family support is intended to provide support for leprosy sufferers to take medicine regularly. This support is in the form of emotional, informational, instrumental, appraisal support. Family support is very necessary for the recovery and motivation of sufferers in undergoing treatment besides that the family also acts as a supervisor for taking medication which is included in the assessment support so that sufferers will continue to be supervised by their families to take medication according to the

time and dosage specified. And will have an impact on the success of treatment of sufferers. In providing support, family knowledge about the disease is also needed because it is hoped that the family will also add insight on leprosy so that it can provide the support as expected by sufferers.

### 3.2.6 Access to Health Services

From the results of the study it was found that access to health services for all MB type leprosy patients in the working area of the Jenu Health Center, Tuban Regency was poor (distance > 2 km).

Access or mileage is a condition that can prevent someone from getting something. Health services are an important form of service in the community environment which aims to improve the degree of health and the ability of the community to maintain health in order to achieve optimal health both independently, family and community. Access has the meaning of entry, which means access to health services can be interpreted as a form of health service with several types of services that can be reached by the community (KBBI, n.d.).

Based on the research of Purbantari, et al. a distance of more than 1 km does not affect the utilization of health services for tuberculosis sufferers to receive health services (A. D. Purbantari, Roesdiyanto, 2019).

Based on this description, it is known that access to health services is poor, does not affer the patient's motivation to seek treatment and the desire to recover from their illness. In addition, if the patient does not take the drug according to schedule, the officer will visit the patient so that the patient can still undergo treatment as they should. So access to health services has no effect on the success of treatment. As another alternative, it is hoped that the family will be able to assist the patient in facilitating access by accompanying the patient when taking medication or control.

### 3.2.7 Success Factors in the Treatment of Type MB Leprosy Patients

Based on the results obtained, almost all of the success factors for the treatment of leprosy were found to be found without any defects, all of them underwent early treatment, all of them received good family support, all of the health workers had a good role.

Detection or discovery of cases of leprosy quickly and early determines the status of treatment (Kamal & Martini, 2015). The discovery of leprosy sufferers for a long time affects the duration of leprosy sufferers, thus making a poor prognosis for future conditions. The recovery time for leprosy sufferers who are diagnosed late takes longer (Tami, 2019). Disability occurs when patients with MB type leprosy are diagnosed late and do not receive MDT, so they have a high risk of nerve damage (Noviastuti & Soleha, 2017). According to research by Nanda

et al (2015), judging from the length of illness, patients who quickly receive treatment have less disability (R. V. Nanda, L. T. Handayani, 2015).

As is well known, the family is the smallest and closest unit to the sufferer, capable of being a caregiver (providing care at home) for the sufferer (Hidayati et al., 2019). There are 4 types of family support namely informational, appraisal, motivational, instrumental support (Watung, 2021). Based on Ama's research, it shows that leprosy sufferers' family support for the irregularity of taking MDT medication for leprosy sufferers has a close relationship. Family is the closest person spiritually, therefore if someone gets family support in any case, it is mentally influential. In terms of adherence to taking medication, family support can be a doctrine for lepers to obey and wish to recover (Ama, 2018). According to Andriani's research, et al, there is a relationship between family support and patient adherence in undergoing treatment (Andriani et al., 2019).

L. Green states that a person's behavior is influenced by driving factors such as the attitude of staff in supporting the treatment of sufferers (Andriani et al., 2019). Based on Rustam's research, there is an influence between the role of health workers and medication adherence. Because officers are able to educate well about information on length of treatment, rules for taking medication, and information about other leprosy using language that is easy to understand (Rustam, 2018).

The successful treatment of MB type leprosy requires support from the family and the surrounding community, the family is the closest person who can supervise and control the patient's condition. Family support will greatly influence the patient's motivation to recover. Treatment of leprosy also requires the role of health workers because health workers can provide encouragement to sufferers, besides that if the patient has not taken the medicine then the health worker will come to give the medicine.

Efforts to find and treat early leprosy in patients with MB type leprosy are very important, besides being able to influence the success of treatment, the prognosis of the disease is getting worse. For this reason, family and community support is needed so that there is no feeling of embarrassment and they immediately come to the nearest health service.

## 4.    CONCLUSION

1. Almost all leprosy patients are found without any disabilities and all of them undergo treatment immediately after being diagnosed with leprosy.
2. Most of the lepers are in the age group of 46-65 years, almost all of the lepers are male, the education level of most of the lepers is elementary school, most of the lepers have an income of <Rp. 500,000.

3. Most of leprosy sufferers have less knowledge about leprosy.

4. Most of the MB type lepers have low adherence.

5. All sufferers get good family support.

6. All access to health services is poor (> 2 Km).

7. All roles of health workers are good

8. The success factors for the treatment of leprosy are almost all finding that leprosy patients are found to be without defects, all receive early treatment, all receive good family support, all the roles of health workers are good.

## ACKNOWLEDGEMENTS

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