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## REPORT ON VISITING ACTIVITIES FOR PULMONARY TUBERCULOSIS CASES WITH SHORT STITCH IN AN. S WITH A FAMILY MEDICAL APPROACH

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KEYWORDS	ABSTRACT
tuberculosis, stunting, family medicine.	Tuberculosis (TB) is still a serious health problem in the world. TB in children is an important indicator of transmission. Tuberculosis in children occurs at the age of 0-14 years. Indonesia has a high burden of TB disease, especially in Banten Province. The global prevalence of TB in 2021 increased by around 600,000 cases compared to 2022 of 10.6 million cases. The purpose of this study is to know, analyze and help solve problems faced by patients. The methods in this report are used to confirm the diagnosis of RO TB based on the Mtb susceptibility test using phenotypic and genotypic TCM and LPA methods. Diagnosis of tuberculosis in suspected TB is carried out by TCM examination. Based on the plotting results, there is a girl with the initials S who is diagnosed with pulmonary tuberculosis and is short in stature, so it is necessary to intervene through a family medicine approach. After intervening holistically and comprehensively, An's complaint. S is showing improvement and is currently still undergoing treatment. The source of TB transmission in An is known to S is thought to come from the patient's grandfather. TB infection experienced by patients has an impact on inhibiting patient growth so that the patient's height and weight do not increase. After thorough treatment and education, the patient's family understands TB disease, transmission, and prevention. It is hoped that treatment can be carried out completely and can achieve age-appropriate growth.

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DOI: 10.58860/ijsh.v2i9.102

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### INTRODUCTION

Family medicine is a branch of medical science that provides sustainable and comprehensive health services for an individual or family (Sari & Sibuea, 2019). This medical science is a broad branch that combines biological, clinical, and behavioral sciences. Family medicine covers all age groups, all genders, all organ systems, and all diseases ( Syalfina et al., 2017). Family physicians have a responsibility to provide personalized health services to their patients in a comprehensive, ongoing, and proactive manner. They also pay attention to the patient's role as a member of the family and community in which they live. The services provided include efforts to improve health (promotive), prevention (preventive), treatment (curative), and rehabilitation (Rosyanti & Hadi, 2020).

Until now, Tuberculosis (TB) is still a serious health problem in the world. Tuberculosis is an infectious disease that most often attacks the lungs and is caused by the bacteria *Mycobacterium tuberculosis*. The disease spreads through the air when an infected person coughs, sneezes, or spits. *The World Health Organization* (WHO) estimates that one million children suffer from TB disease every year. Children and young adolescents represent approximately 11% of TB cases globally. TB in children occurs at the age of 0-15 years and is an important indicator of transmission. The highest number of pediatric TB cases occurs in children under 5 years of age and in adolescents over 10 years old (Mardiati & Fitri, 2023).

Factors that influence TB infection include host *factors*, exposure factors, and the home environment. A risk factor for TB infection in children is household contact with adults suffering from active TB. Environmental risk factors include ventilation, room temperature, natural lighting, humidity, and population density. Nutritional status has a significant relationship with the incidence of TB. Malnutrition impacts the body's immune system, making it susceptible to infection (Sulaiman et al., 2023).

WHO findings in 2021 reported that TB is the second deadliest infectious disease in the world after Covid-19 (Pradipta et al., 2023). The global prevalence reported in 2021 was 10.6 million cases, an increase of around 600,000 cases compared to 2020, which recorded 10 million cases. Of the total 10.6 million cases, 60.3% of individuals have received treatment. There are 6 million adult male cases, 3.4 million cases in adult female patients, and 1.2 million cases in children. The WHO region of Southeast Asia and the Western Pacific accounted for most of the global reduction (compared with 2019): 84% of the total in 2020, and 99% in 2021.

Indonesia is ranked third with the highest number of TB cases in the world after India and China, with 824 thousand cases and 93 thousand deaths each year (Utami et al., 2019). In 2022, the Ministry of Health identified more than 700 thousand TB cases. WHO classifies Indonesia as one of the countries with a high burden of TB (HBC). There were 29,153 TB cases in children aged 0-14 years reported by the national TB program in 2019. As many as 35% of TB cases in children were not reported to the national TB program.

*The rate* (CNR) of new cases of Acid-Resistant Bacillus (BTA) in Banten Province in 2022 is 168 per 100,000 population, with Tangerang Regency being the highest with the number of cases at 5,503 per 100,000 population. Tangerang City is in second place with the number of cases at 3,166 per 100,000 population. The proportion of TB cases recorded in children in Banten in 2020 was 1,551 cases out of a total of 19,979 cases of pulmonary TB reported. South Tangerang City tops the list with 442 cases, followed by Tangerang City with 358 cases, and Tangerang Regency with 357 cases. (Kusnowibowo, 2021). In the working area of the Kresek Community Health Center, in the period January 2022 – June 2022, 5 new cases of pediatric pulmonary TB were found. In July 2022 – December 2022, 3 new cases were found, and this increased in the period January 2023 – May 2023 with 7 new cases.

A link between malnutrition and Tuberculosis has been demonstrated. However, a causal relationship is difficult to prove because TB can have an insidious onset, and the duration of the disease before diagnosis is difficult to determine, making it difficult to know which occurred first. (Pewa, 2019). Weight loss and malnutrition in tuberculosis sufferers can be caused by decreased food intake or factors resulting from Tuberculosis. The altered metabolism of Tuberculosis can cause a so-called anabolic block, where dietary protein is used more for energy production than anabolism. (ALAINA et al., 2019). Malnutrition itself can cause *stunting*. *Stunting* is a growth and development disorder experienced by children due to chronic malnutrition, recurrent infections, and inadequate psychosocial stimulation (Mukhsin et al., 2023).

A 3-year-old boy was a patient from the Kresek Community Health Center who came with complaints of shortness of breath. Then, the patient was diagnosed with pulmonary TB in January 2023 and is currently in the fifth month of treatment. Apart from that, it was also found that the patient had growth problems, where, based on the *plotting results*, it was found that the patient had a short stature. *Stunting* and TB are interconnected cases; apart from that, the source of infection transmission to the child is not yet known, and the family lacks knowledge, so this case is interesting for family case visits. (Sumantri, nd).

Based on the background above, the aim of this research is to find out and analyze. This visit can help solve the problems faced by patients. A series of interventions are needed with the aim of healing from pulmonary Tuberculosis, preventing worsening of the patient's condition, and treating growth problems, as well as finding the source of infection to prevent transmission of the disease to people around them.

The benefits of this study are to increase understanding of pulmonary tuberculosis and short stature, improved early diagnosis, more holistic health management, recommendations for best practices, increased public awareness and education, contribution to scientific research, and improved quality of life for patients.

### **CASE REPORT**

A male patient aged 3 years 10 months was examined on June 13, 2023, at 10:00 WIB at the children's clinic at the Kresek Community Health Center with the main complaint of cough accompanied by shortness of breath and fever since 3 days ago. Shortness of breath appears if the cough becomes worse. Cough and shortness of breath are not affected by activity and do not improve with rest. History of asthma denied (Danu et al., 2021). Fever is felt especially at night. The patient's mother also said that the patient sweats a lot at night. Currently, the patient is undergoing OAT therapy, which will start in January 2023. OAT medication is taken every day after breakfast at 07.00 in the morning. The mother also complained that the child's height and weight had not increased since 5 months ago. The patient eats large meals 3 times a day with a less varied menu, namely white rice with fish or chicken eggs. The patient does not like to eat vegetables and does not drink milk (Makbalin, 2019). From the results of the physical examination carried out on June 13, 2023, it was found that the patient appeared mildly ill, pulse 87x/min, respiratory rate 22x/min, temperature 36.6OC, weight 11.5 kg, TB 93 cm, BMI 13.2 kg/m<sup>2</sup>. From the plotting results, it was found that BB/U was between -2 and -3 (low weight), TB/U was between -2 and -3 (short), BB/TB was between -1 and -2 (good nutrition), and BMI/U was below -1 (Good Nutrition).

### **METHOD**

The method in this report is used to confirm the diagnosis of RO TB based on Mtb susceptibility testing using both phenotypic and genotypic TCM and LPA methods. The diagnosis of TB in suspected TB is carried out by TCM examination. Diagnosis of TB is carried out by microscopic examination. Suppose the TB suspect is in the RO TB suspect group. In that case, efforts must still be made to establish a TB diagnosis with TCM TB by making a referral to the nearest TCM service. Patients with Mtb Rif Res results from the low TB RO risk group must undergo TCM re-examination using a new sputum specimen of better quality. If the TCM results are indeterminate, carry out another TCM examination. If the results remain the same, give 1st line treatment and perform culture and sensitivity testing (Ministry of Health of the Republic of Indonesia, 2020a).

### **RESULTS AND DISCUSSION**

#### **Holistic Diagnostics**

1. Aspect I (Personal Aspect)
  1. Cough with phlegm
  2. Out of breath
  3. Fever
  4. Weight and height are difficult to increase
2. Aspect II (Clinical Aspect)

1. Diagnosis: Pulmonary Tuberculosis
2. Additional diagnosis: Short Stature
3. Aspect III (Internal Aspect)
  - 1) An. S does not like drinking milk.
  - 2) An's endurance. S is not doing well because immunization is incomplete, and he often experiences coughs and colds.
4. Aspect IV (External Aspect)
  - 1) An's family. S does not know much about Tuberculosis.
  - 2) An. Takes medicine regularly and goes to the Puskesmas for regular check-ups before the medicine runs out.
  - 3) The father and uncle are active smokers who live in the same house as the patient and sometimes smoke around the house.
  - 4) There is a neighbor, An. S experienced a similar complaint, but the disease was not yet known.
  - 5) The patient's grandfather died 1 year ago due to lung disease.
  - 6) The patient's daily calorie needs are less, and the patient's eating habits are less varied.
  - 7) Poor living environmental conditions, such as ventilation not being opened and doors often being closed.
  - 8) An's home lighting. S is not completely exposed to sunlight in the morning and afternoon.
5. Functional Aspect
 

Functional status An. S is 5, that is, you can carry out daily tasks in full.

**Family Diagnosis**

1. Family Form
 

Ancestry : Matrilinear  
 Marriage : Monogamous  
 Settlement : Matrilocal  
 Type of family members: Nuclear Family  
 Power: Patriarchal

**Family Functions**

1. Holistic
  - 1) The family's biological function, some patients experience the same complaints.
  - 2) The psychological function of the patient's family is in good condition.
  - 3) The patient's family's economic status is in the lower middle class.
2. Physiological (APGAR)

**Table 1. Apgar Score**

Assessment Aspects	0 (rarely/not at all)	1 (sometimes)	2 (often/always)
<i>Adaptations:</i> Ability to adapt to members' families as well as reception support and suggestions from members' families.		√	
<i>Partnerships:</i> Communication, each other for, mutually content between inner family members all problem Which experienced family		√	
<i>Growth:</i> Support family to things new Which done memberfamily other			√
<i>Affection:</i> Connection, love Darling, And interaction with members, family, and other			√
<i>Resolve</i> Satisfaction among members of the family about togetherness And time spent together with one another.		√	

An's family's total APGAR score. S = 7 (mild or no family dysfunction)

From the APGAR score results, family An. S has good physiological function where family members are in close and harmonious relationships, supporting and helping each other.

3. Pathological (SCREAM)

- Social (S)  
An. S lives with his father and mother. Interaction An. S is good with friends his age and neighbors.
- Culture (C)  
An's family. They respect each other, appreciate the culture in society, and always apply good manners.
- Religious (R)  
An's family. S is Muslim and often worships and recites the Koran at home or the mosque near the house.
- Education (E)  
An. S still needs to go to school, father, and mother An's last education. S is middle school.
- Economics (E)  
Mrs An. S only works as a housewife and gets money for her daily needs from her husband. Family Income An. S is below the UMK (District et al.), and his monthly income is only enough to meet his daily needs.
- Medical (M)  
An's family. S uses BPJS and uses his costs for treatment.

**Family Life Cycle (Duvall)**

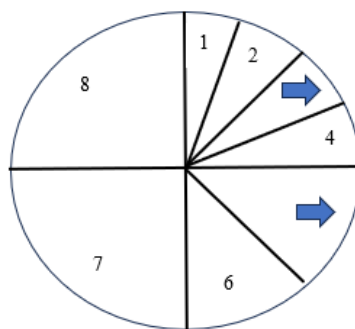


Figure 1. The life cycle of Mrs. A Based on the Duvall Cycle

Caption:

1. Early stages of marriage
2. Family stage with baby
3. Family stage with pre-school age children
4. Family stage with school-age children
5. Family stage with teenage children
6. The family stage with children leaving the family
7. Middle age parenthood stage
8. Old age family stage

Impression: family life cycle (Duvall) An. S is currently in stages 3 and 5, namely the family stage with pre-school-age children and the family stage with teenage children.

### **Coping Score**

1. The family is unaware of the problem
2. Knowing there is a problem but not knowing the solution.
3. Know the problems and solutions but still need to do so due to certain limitations.
4. Knowing the problems and solutions, some have been done but still need assistance.
5. Know that the problem, solution, and solution have been implemented completely and independently.
6. Conclusion: An's family's coping score. S is 4.

### **Holistic and Comprehensive Management Plan**

#### 1. Aspect I (Personal Aspect)

##### 1) Cough with phlegm

###### Management plan:

- Pharmacological: Ambroxol syrup dose 15 mg 3 times 1 teaspoon
- Nonpharmacological:

Educate the family about An's cough. S is a symptom of TB and will improve with regular OAT consumption.

Educate the family to limit the patient's consumption of foods or snacks that trigger recurring coughs, such as ice cream, fried foods, and chili.

##### 2) Congested

###### Management plan:

- Pharmacological: Not given.
- Nonpharmacological:

Educate the patient's parents that on physical examination, An. S does not look cramped. The shortness of breath experienced by the child is due to excessive coughing, so the child looks as if he is short of breath.

Explain to the patient's parents about shortness of breath, causes of shortness of breath, symptoms of shortness of breath, and how to treat shortness of breath.

Avoid exposure that can cause coughing, such as dust, cigarette smoke, and others.

##### 3) Fever

###### Management plan:

- Pharmacological: Paracetamol syrup, 3 times 1 teaspoon if fever.
- Nonpharmacological:

Educate families to measure temperature when they have a fever and give fever-reducing medication if the temperature exceeds 37.5OC.

Educate families about other ways to reduce fever, such as compressing the patient with a warm towel when they have a fever.

##### 4) Height and weight are difficult to increase

###### Management plan:

- Pharmacological: Not given.
- Nonpharmacological:

Educate the family that difficulty gaining weight is a sign of the patient's TB disease.

Education to families about the negative impacts that can occur if weight and height do not increase, namely the risk of impaired growth and development, increasing the risk of contracting disease, and reducing children's productivity (Kurniawati & Sari, 2020).

Education for families to deal with this condition is by treating TB and meeting proper nutritional needs. The food consumed must contain macro and micronutrients with a varied diet.

2. Aspect II (Clinical Aspect)

Primary Diagnosis: Pulmonary Tuberculosis

Additional Diagnosis: Short stature

1) Pulmonary Tuberculosis

Management plan

- Pharmacological: OAT RH 1x1 tablet
- Nonpharmacological:

Explained to An's family. S regarding Tuberculosis includes causes, risk factors, transmission, signs and symptoms, course of the disease, prevention, management, and complications that can occur.

Explained to An's family. S that TB can be cured by obediently taking the regular dose of medication given and regular control.

Explained to An's family. S for routine control according to the schedule determined through educational media in the form of "Healthy Calendar to Free Pulmonary TB".

Explained to An's family. S regarding clean and healthy living behavior (PHBS), namely washing hands, eating nutritious food, cough etiquette, and opening windows and doors every morning.

Motivate An's family. S to evaluate disease recovery at the Community Health Center when treatment is complete.

2) Short Stature

Management plan

- Pharmacological: Not administered
- Nonpharmacological:
  - a. Explained to An's family. S regarding short stature includes causes, risk factors, signs and symptoms, disease course, prevention, management, and complications that can occur.
  - b. Explained to An's family. S that by treating Tuberculosis and adequate nutrition, it is hoped that the patient's height can increase.
  - c. Explained to An's family. S regarding a balanced nutritional and high-calorie high protein (TKTP) food menu.
  - d. Provide suggestions for changing the food menu to be more varied according to balanced nutrition and high-calorie high protein (TKTP) to be applied to patients.
  - e. Motivate the patient's family to bring An routinely. S regularly goes to the Community Health Center or Posyandu for regular anthropometric measurements.

3. Aspect III (Internal Aspect)

a. An. S does not like drinking milk

Management plan:

Family education to motivate An. S to drink milk, you can try various variations of milk available, using a glass or straw according to the child's wishes.

b. An's endurance. S is not good because immunization is incomplete, so he often experiences coughs and colds.

Management plan:

Education for families to implement PHBS (Clean and Healthy Living Behavior), complete immunizations, and fulfill vitamin needs by consuming fruit and vegetables.

- c. An. Takes medicine regularly and goes to the health center regularly before the medicine runs out.

Management plan:

An's family education. S for regular check-ups at the Community Health Center, complete treatment to avoid drug withdrawal, and carry out evaluations after completing treatment.

4. Aspect IV (External Aspect)

- 1) An's family. S does not know much about Tuberculosis

Management plan:

Providing education to An's family. S regarding the disease he is suffering from (understanding, causes, risk factors, signs and symptoms, management carried out including how to take nonpharmacological management medication such as implementing PHBS, and complications that can occur and their prevention (Alatas, 2019 ).

- 2) The patient's father and uncle are active smokers who live in the same house as the patient and sometimes smoke around the house.

Management plan:

Providing education to An's family. S, if you smoke, try not to do it at home, stay away from children, and educate family members about the dangers of cigarette smoke.

- 3) There is a neighbor, An. S experienced a similar complaint, but the disease was not yet known.

Management plan:

Providing education to An's family. S to wear a mask and temporarily avoid children playing with sick neighbors. Educate An's neighbors. S is to wear a mask, apply cough etiquette, and carry out screening at the Community Health Center.

- 4) The patient's grandfather died 1 year ago due to lung disease.

Management plan:

Providing education to An's family. S to carry out TB screening on all household members who live together.

- 5) The patient's daily calorie needs are less, and the patient's eating habits are less varied.

Management plan:

Providing education for An's family. S to provide food with a varied menu according to balanced nutrition, increasing the patient's meal portions, and providing snacks more often.

- 6) Poor living environmental conditions, such as ventilation not being opened and doors often being closed

Management plan:

Educating the patient's mother always to provide access to good air circulation in the bedroom can be done by opening the doors and windows wide in the morning. Optimize your air ventilation; make sure it is clean from dust and not blocked.

- 7) An's home lighting. S is not completely exposed to sunlight in the morning and afternoon.

Management plan:

Education to turn on the house lights when doing activities and open windows and doors in the morning and afternoon so that sunlight can enter the house.

5. Aspect V (Functional Aspect)

An.S can carry out daily activities without obstacles (score 5)



Management plan: Motivate An's family. S is to take medication and have regular check-ups at the Community Health Center until the treatment is finished.

### **Intervention, Intervention Results, and Prognosis**

#### **Interventions and Outcomes**

##### 1. Personal Aspect

###### 1) Cough with phlegm

Management plan:

- Pharmacological: Ambroxol syrup dose 15 mg 3 times 1 teaspoon

- Nonpharmacological:

Educate the family about An's cough. S is a symptom of TB and will improve with regular OAT consumption.

Educate families to limit patients from consuming foods or snacks that trigger recurring coughs, such as ice cream, fried foods, and chili.

- Intervention Results: There was a clinical improvement; coughing decreased in An. S.

###### 2) Congested

Management plan:

- Pharmacological: Not given.

- Nonpharmacological:

Educate the patient's parents that on physical examination, there is no shortness of breath. The child's shortness of breath is due to excessive coughing, so the mother sees that the child looks short of breath.

Explain to the patient's parents about shortness of breath, causes of shortness of breath, and symptoms of shortness of breath. Avoid exposure that can cause coughing, such as dust, cigarette smoke, and others.

- Intervention Results: There was an increase in An's family knowledge. S is about tightness.

###### 3) Fever

Management plan:

- Pharmacological: Paracetamol syrup, 3 times 1 teaspoon if fever.

- Nonpharmacological:

Educate families to measure temperature when they have a fever and give fever-reducing medication if the temperature exceeds 37.5OC.

Educate families about other ways to reduce fever, such as compressing the patient with a towel when they have a fever.

The results of the intervention showed an increase in An's family knowledge. S regarding how to treat fever. There was clinical improvement in fever in An. S

###### 4) Height and weight are difficult to increase.

Management plan:

- Pharmacological: Not given.

- Nonpharmacological:

Educate the family that difficulty gaining weight is a sign of the patient's TB disease.

Educate families about the negative impacts that can occur if weight and height do not increase, namely the risk of impaired growth and development, increasing the risk of contracting disease, and reducing children's productivity.

Education for families to deal with this condition is by treating TB and meeting proper nutritional needs. The food consumed must contain macro and micronutrients with a varied diet.

- **Intervention Results:**

The patient's mother understands An's weight and height. S includes causes, risk factors, signs and symptoms, disease course, prevention, management, and complications that may occur.

The patient's mother understands that by treating the pulmonary Tuberculosis she suffers from, the child's growth and development will be optimized.

There was an increase in body weight of 0.6 kg.

### **Clinical Aspects**

Primary Diagnosis: Pulmonary Tuberculosis

Additional Diagnosis: Short stature

#### 1. Pulmonary Tuberculosis

Management plan;

- Pharmacological: OAT RH 1x1 tablet

- Nonpharmacological:

Explained to An's family. S regarding Tuberculosis includes causes, risk factors, transmission, signs and symptoms, course of the disease, prevention, management, and complications that can occur.

Explained to An's family. S that TB can be cured by obediently taking regular medication according to the dose given and regular control.

Explained to An's family. S for routine control according to the schedule determined through educational media in the form of "Healthy Calendar to Free Pulmonary TB."

Explained to An's family. S regarding clean and healthy living behavior (PHBS) at home, namely by washing hands with soap, using clean water, eating nutritious food, cough etiquette, and opening windows and doors every morning.

Motivate An's family. S to evaluate disease recovery at the Community Health Center when treatment is complete.

- **Intervention Results:**

There is an increase in knowledge from the An family. S regarding pulmonary Tuberculosis includes causes, risk factors, disease transmission, signs and symptoms, course of the disease, prevention, management, and complications that can occur.

The patient's mother already understands that pulmonary Tuberculosis can be cured if she regularly adheres to taking medication and routine control according to the "Healthy Calendar to Free Pulmonary TB" schedule that has been given at the Community Health Center.

There was clinical improvement in An. S includes cough complaints that have decreased.

Patients already understand clean and healthy living behavior (PHBS) at home, namely a nutritious diet, cough etiquette, and washing hands, opening windows and doors every morning.

Mrs An. S will take the child for a recovery evaluation after treatment is complete.

#### 2. Short stature

Management plan

- Pharmacological: Not administered

- Nonpharmacological:

Explaining to Mrs. An. S regarding short stature includes causes, risk factors, signs and symptoms, disease course, prevention, management, and complications that can occur.

Explaining to Mrs. An. S hopes that by treating the Tuberculosis he is suffering from, the patient's height can increase.

Explained to Mrs. An. S regarding a balanced nutritional and high-calorie high protein (TKTP) food menu.

Create an example of a balanced nutritional and high-calorie high protein (TKTP) food menu to be applied to patients.

- **Intervention Results:**

The patient's mother understands An's short stature. S includes causes, risk factors, signs and symptoms, disease course, prevention, management, and complications that may occur.

The patient's mother understands that by treating the pulmonary Tuberculosis she suffers from, she can optimize the child's growth.

### **Internal Aspects**

1. An S. does not like drinking milk

- **Management plan:**

Family education to motivate An. S to drink milk, you can try various variations of milk available, using a glass or straw according to the child's wishes.

- **Intervention results:** An. S started to be interested in drinking milk

2. An's endurance. S is not well, so he often coughs.

- **Management plan:**

Educate families about implementing PHBS, using masks, and meeting vitamin needs by consuming fruit and vegetables.

- **Intervention Results:**

There is an increase in patient family knowledge regarding the importance of using masks to prevent transmission and repeated exposure to TB infection, as well as the importance of implementing PHBS at home and a nutritious diet to increase An's immunity. S.

### **External Aspects**

1. An's family. S does not know much about Tuberculosis

Management plan:

- Providing education to An's family. S regarding the disease he is suffering from (understanding, causes, risk factors, signs and symptoms, management including how to take medication).

- Nonpharmacological management, such as implementing PHBS, and complications that can occur and their prevention.

Intervention Results: There was an increase in An's family's knowledge. S regarding Tuberculosis includes understanding risk factors, signs, and symptoms, management, how to take medication, complications that can occur, as well as how to prevent and apply PHBS at home.

2. An. S takes the medicine regularly and goes to the community health center for control before the medicine runs out.

Management plan:

- An's family education. S for regular check-ups at the Community Health Center, complete treatment to avoid drug withdrawal, and carry out evaluations after completing treatment.

Intervention results: An.S's family understands the importance of routine treatment and control and will evaluate An.S' condition. S at the health center after An's treatment. S finished

3. The patient's father and uncle are active smokers who live in the same house as the patient and sometimes smoke around the house.

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Management plan:

- Providing education to An's family. S, if you smoke, try not to do it at home, stay away from children, and educate family members about the dangers of cigarette smoke.

Intervention results: Family An. S understands the dangers of cigarette smoke and keeps children away from cigarette smoke.

4. There is a neighbor, An. S experienced a similar complaint, but the disease was not yet known.

Management plan:

- Providing education to An's family. S to wear a mask and temporarily avoid children playing with sick neighbors. Educate An's neighbors. S is to wear a mask, apply cough etiquette, and carry out screening at the Community Health Center.

Intervention results: There is an increase in the knowledge of An's family and neighbors. S regarding the transmission of TB infection, the importance of screening, as well as the importance of using masks and cough etiquette.

5. The patient's grandfather died 1 year ago due to lung disease.

Management plan:

- Providing education to An's family. S to carry out TB screening on all household members who live together.

Intervention results: An's family. S has understood the importance of TB screening.

6. The patient's daily calorie needs are less, and the patient's eating habits are less varied.

Management plan:

- Providing education for An's family. S to provide food with a varied menu according to balanced nutrition, increasing the patient's meal portions, and providing snacks more often.

Intervention results: An's weight gain. S as much as 0.6 kg

Table 2. Results of Control of Body Weight and Height An. S

Date of visit	Height	Weight
06-19-2023	93 cm	11.5 kg
06-26-2023	93 cm	11.7 kg
07-03-2023	93 cm	12 kg
07-10-2023	93 cm	12.1 kg

7. An's bedroom. S and Mother only have small air vents.

Management plan:

- Educating the patient's mother always to provide access to good air circulation in the bedroom can be done by opening the doors and windows wide in the morning. Optimize your air ventilation; make sure it is clean from dust and not blocked.

Intervention results: The patient's mother opened the doors and windows more often in the morning.

8. An's home lighting. S is not completely exposed to sunlight in the morning and afternoon.

Management plan:

- Education to turn on the house lights when doing activities and open windows and doors in the morning and afternoon so that sunlight can enter the house.

Intervention results: Family An. S turned on the lights and opened the doors and windows in the morning.

Prognosis

Ad Vitam : ad bonam

Ad Sanationam

Tuberculosis : ad bonam

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Fever	: ad bonam
Short stature	: dubia ad bonam
Ad Functionam	: ad bonam.

## CONCLUSION

The results of the family medicine visit to An. S yields several important conclusions. First, the suspected source of transmission of pulmonary TB An. S is a grandfather who died a year ago and a neighbor who also experienced a similar condition, highlighting the importance of screening to determine the source of infection and risk factors. Second, the factors causing pulmonary TB infection and An's short stature. S includes insufficient knowledge about diseases, incomplete immunization, exposure to cigarette smoke, and inadequate PHBS practices at home. Third, management is carried out holistically, including education, drug control, nutritional monitoring, PHBS promotion, and improving housing conditions. Finally, intervention outcomes included completion of pulmonary TB treatment, increased growth of An. S, increased awareness of PHBS, and implementation of PHBS practices at home, as well as an increase in An's weight. S as much as 0.6 kg. This conclusion underscores the importance of holistic care and a family medicine approach in treating pulmonary tuberculosis and short stature in An. S and his family.

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