

FAMILY SUPPORT IN INCREASING ADHERENCE TO TREATMENT OF TUBERCULOSIS PATIENTS

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Abstract

Pulmonary tuberculosis is a global health problem that can impact productivity and quality of life. The prevalence of pulmonary tuberculosis was 929 patients while those taking medication were only 48.87%. Family support in increasing compliance of pulmonary tuberculosis patients in taking medication is the key to the success of tuberculosis treatment. This study aims to determine family support in increasing adherence to the treatment of tuberculosis patients. This research is qualitative research with a phenomenological approach. Data collection used in-depth interviews and then analyzed by content analysis. Informants in this study consisted of 10 tuberculosis patients. The results of this study found three themes, namely (1) prolonged illness and long treatment, (2) family support, and (3) interaction patterns. It was concluded that a better understanding of tuberculosis and treatment adherence could contribute to treatment success. It is suggested that families can be aware of and encourage medication adherence.

Keywords: Family Support, Increasing Adherence, Tuberculosis.

A. INTRODUCTION

Tuberculosis (TB) is currently still a public health problem both in Indonesia and internationally and is one of the goals of sustainable health development (SDGs). Tuberculosis is one of the top 10 causes of death and the world's primary cause of infectious agents. The prevalence of tuberculosis patients in 2020 was 929 patients who took regular medication for less than 6 months, amounting to 48.87%. Tuberculosis is a disease caused by Mycobacterium bacteria and until now it is still a disease with a high burden for the Indonesian people. The increasing burden of TB is caused by poverty, the failure of TB activities that has so far been caused by inadequate political commitment and funding, unavailability of services in the community causing reduced problem innovation and inappropriate diagnosis, reduced supply of medicines, and, reduced reporting of tuberculosis patients. Lack of surveillance, lack of discourse on recording and reporting of cases, treatment management and, unreported movements of people (Director General of Disease Control and Environmental Health, 2015).

The TB Control Program in the world aims to reduce the TB burden and create a healthy and TB-free global, WHO sparked a new strategy that accompanies the SDGs with the name End TB Strategy (World Health Assembly 2014). The principle strategy used by WHO is to include the role of the government in evaluating and monitoring the course of this art of management; Utilizing coalitions with existing social and community organizations; ensuring protection of

human rights and promotility among citizens; Adapting tactics and targets in each country, in cooperation with the world. Various kinds of programs, methods and approaches have been carried out by the government, including drug swallowing supervision programs (PMO), door knocking, and find a cure until recovery (TOSS) events. DOTS has been recommended to ensure drug adherence and requires skilled health care or treatment supporters to observe daily drug consumption (WHO, 2014; Rurua et al., 2018; Sajjad, SS., Sajid, N.). According to the 2016 TB prevention regulation, namely the implementation of TB prevention needs support by sharing efforts and strengthening coordination procedures, as well as partnerships between TB program managers and government agencies across sectors and across programs, stakeholders, health insurance also use community organizations.

According to the 2018 North Sumatra Regional Health Working Meeting, there were 73,488 TB patients (6.5%), the origin of the total number of Indonesian TB patients, namely 1,020,000 TB cases. of 73,488 TB patients in North Sumatra, only 34,898 people were found (March 2018). There are many factors that influence the success of TB treatment including compliance, education, perception, socioeconomic status of patients, health workers at puskesmas (Pasek & Satyawan, 2013; Umiasih, S., Handayani, O., W., K. 2018; Cadosch D., Abel Zur Wiesch P, Kouyos R, Bonhoeffer S. 2016). Whether or not recovery is achieved is caused by irregularities or non-compliance with treatment so that efforts to increase adherence to treatment mean priority dilemmas in pulmonary TB control programs (Nugroho, Randy Adhi. 2011; Prasetyo YA, Preechawong S, Yunibhand J. 2014; Fang X.Y, and Liu, Jun et al., 2017). The knowledge factor significantly affects the regularity of taking medication for TB patients (Ariani, Ni Wayan., Rattu, A. J. M., & Ratag, B. 2015). psycho-emotional (PE) and socio-economic (SE) interventions provided to TB patients and to assess the effects of this hegemony on treatment and medication adherence (van Hoorn R, Jaramillo E, Collins D, Gebhard A, van den Hof S (2016).

The proportion of TB patients taking routine medication for less than 6 months in the Serdang Bedagai area is 48.87% or lower than North Sumatra Province, which is 72.6%). As for the reasons TB patients don't take medication regularly, the most common are drugs not available at the health facility using a percentage of 5.00%, often forgetting 6.54%, not being able to buy TB drugs regularly 12.4%, not taking medication regularly 27, 28% and so on such as not being able to stand the side effects, the treatment period feels old and feels healthy. This study aims to explore family support in increasing adherence to treatment of tuberculosis patients.

B. METHOD

This research was conducted in the work area of the Serdang Bedagai Health Office in 2022. This research used a qualitative approach with data analysis techniques using qualitative content analysis. Data collection uses in-depth interviews. The sampling technique used purposive sampling. There were 10 informants with tuberculosis and currently taking DOTS medication. The researcher first produces a framework for the subject matter that will be conveyed to informants in the form of an interview guide. The interview questions addressed to the subject are open-ended and do not lead directly to research questions. The process of

collecting data through interviews was carried out using a voice recorder. Recording was done with the subject's consent. The results of the interview were in the form of voice recordings, which were then converted into written form (transcript). The designed transcripts were analyzed using qualitative content analysis. Qualitative content analysis is carried out by elaborating or filtering text or word terms into a number of categories that represent a variety of specific contents. The results of content analysis are a method for analyzing text content flexibly. The qualitative results of the content analysis can be used to evaluate the findings resulting from the analysis itself.

C. RESULT AND DISCUSSION

This study used 8 participants who came from families with tuberculosis. In detail can be seen in the following demographic data.

Table 1. Informant Demographic Data

Participant	Gender	Age (Year)	Education	Occupation
KP ₁	Male	44	Junior High School	Construction Workers
KP ₂	Male	40	Junior High School	Construction Workers
KP ₃	Female	55	Junior High School	House wife
KP ₄	Female	48	Junior High School	House wife
KP ₅	Female	32	Senior High School	House wife
KP ₆	Female	48	Primary School	House wife
KP ₇	Male	42	Junior High School	Construction Workers
KP ₈	Female	36	Junior High School	Entrepreneur

The results of the analysis and verbatim transcripts found 3 themes and 8 categorik. The details can be seen in table 2.

Table 2. Theme and category

Theme	Category
Prolonged illness and long treatment	1. Family knowledge of TB patients is not optimal 2. Family coping mechanisms
Family support	1. Emotional support 2. Instrumental support 3. Information support 4. Award support
Interaction patterns	1. Interaction in the family 2. Community interaction

Prolonged Illness and Long Treatment

Tuberculosis is a disease that requires at least 6 months to take the drug regularly. A long time, side effects, taking medication every day and feeling recovered make tuberculosis sufferers abandon their treatment or drop out midway. This happens because TB patient's knowledge about their disease is not optimal and family perceptions are still low

Family knowledge of TB patients is not optimal. Knowledge of families of TB patients about the illness they are experiencing is still not optimal.

"...Maybe I got dust because my father works by driving a car, he keeps smoking too, doc..." (KP1; KP3; KP5-KP6; KP9)

"...He said it was because of germs, sir, when someone coughed, they sprayed us right in front of him, so we can get hit, sir..." (KP4; KP7; KP10)

Family coping mechanisms. The family is the part that is most affected when a family member has tuberculosis. Motivation and family support are needed by tuberculosis patients in terms of adherence. Compliance with tuberculosis patients to adhere to taking medication will increase success in the treatment of tuberculosis.

"...The place for eating and the cup is set aside, the spoon is also set aside, not mixed..." (KP1-KP10)

"...If you cough up phlegm, don't throw it down the toilet carelessly..." (KP1; KP5-KP10)

"...Keep your distance from your family..." (KP3)

Family Support

In this theme there are two sub-themes, namely emotional support, instrumental support, information support, and appreciation support. The government program seeks to eliminate TB by 2030 with the motto TB free starting from us.

Emotional support. It is support that provides a sense of comfort, a feeling of being loved in the form of enthusiasm and empathy that is obtained through interactions with other people in their social environment and can come from anyone, including family. The form of family care will greatly affect the patient's adherence to treatment and taking medication regularly.

"...Every morning I prepare the medicine, make sure I take the medicine in front of me, every morning I make it so that the medicine doesn't stop anymore..." (KP1; KP5; KP7-KP8)

"...I said that you can't go to work if you haven't taken the medicine. He also wants sir..." (KP3; KP8)

"...I even threatened him, sir, if he doesn't want to take his medicine regularly; I'll just have to find another one..." (KP2)

Instrumental support. In addition to a spouse, be it a wife or husband, who provides reinforcement to tuberculosis patients, it turns out that children or grandchildren can have an emotional impact on patients.

"...Children often remind me to take their medicine, sir, their grandchildren also remind me, sir. Let the grandfather be more enthusiastic about taking the medicine, sir..." (KP4)

"... If you sometimes have time to go for control, sometimes if you don't have time, I will take the medicine here, doc, so that the medicine doesn't stop, doc..." (KP1; KP7; KP10)

"...So when it's time to pick up the medicine, I always take it to the puskesmas, sir..." (KP3; KP8)

Information support. The length of time needed by tuberculosis patients in taking medication certainly requires not only physical but also patients need psychological assistance. Tuberculosis patients need to be supported, motivated, given advice, suggestions related to recovery in their illness.

"...To get you excited, that's why every morning before you go to work I tell you to take the medicine first..." (KP3)

"...I told the doctor the doctor said that this father's medicine can be cured but you have to take the medicine regularly, don't be lazy, don't get bored, every day you have to want to keep taking the medicine, sometimes your pahompu (his grandson) also tells opung (grandfather) to take medicine..." (KP8)

"...I always remind my grandmother to take her medicine regularly. Grandma took the medicine for 3 docs. I usually give her the medicine to drink after evening prayer because sometimes grandma often sleeps fast..." (KP5)

Award support. When patients want to take medication regularly, the family must also be able to give praise to sufferers as a form of motivation for their success through each day when they are already taking medication. This form of praise can be an encouragement for those who are undergoing long and tiring treatment.

"...Since taking the medicine from the puskesmas the cough has decreased a lot sir, then the blood is gone, his body has also improved yesterday considering he has gained 3 kilos sir..." (KP3)

"...It's like this, the father is not cramped anymore, sometimes he rents a car with his children and takes the father out for a walk, so that the father is happy, he said, sir..." (KP7)

Interaction Patterns

This theme has three sub-themes, namely the interaction of tuberculosis patients in the family, the interaction of patients in the community. The government strongly supports programs to reduce tuberculosis rates in Indonesia. The government is trying to make it easy for TB patients to be able to access their treatment and ensure the availability of drugs on an ongoing basis. In addition, the government is also increasing cooperation with health facilities in the form of government and private hospitals, clinics and private practices that receive BPJS facilities and are spread throughout the region.

Interaction in the family. Interaction in the family is a daily activity in the family environment including husband and wife, parents and children, children and children and across family generations.

"...If you are not allowed to be near children at home just as long as they talk, wear a mask diligently, sir..." (KP1-KP2; KP6; KP7-KP9)

"...That's why, when you talk, you are a bit far away, sir..." (KP3; KP5)

Community interaction. Interaction in society is a reciprocal relationship between individuals or groups to establish relationships, discussions, collaborations that are applied in social life. When the individual is exposed to tuberculosis there are several different views regarding whether or not the patient can interact in society, some feel ashamed to the point of withdrawing and do not want to meet other people except their family

"... Every morning, when you arrive at the workshop, you are immediately asked if your mother has taken the medicine? Every day bro. If that's the case then I'll make food for you and then I'll have breakfast..." (P7)

"...You are ashamed sir. It's like being at home...last night the children were having a party but they couldn't go there..." (KP4)

"...Because he was embarrassed and I was the only one who left while he was sick..." (KP3)

Discussion

Tuberculosis (TBC) is a disease caused by *Mycobacterium tuberculosis*. TB is an infectious disease with symptoms of persistent cough for more than 2 weeks, prolonged fever, and shortness of breath, chest pain, decreased appetite, decreased body weight and sweats at night. It takes a long time, approximately 6-9 months to ensure recovery for TB patients. There is a wrong understanding about procedures and long enough treatment and the presence of infection causes TB patients sometimes not wanting to take their OAT anymore. Patients usually decide on their own to stop taking the drug. The result of not being disciplined in taking medication results in various side effects, complications and drug resistance. Based on the research of Ariani et al stated that knowledge is the most dominant variable in influencing the regularity of taking medication.

When family members are exposed to *mycobacterium tuberculosis* and cause TB disease, it will have implications for the health of family members. Families are required to participate in motivating and supporting patients to comply with their treatment. Based on Acuna Villaorduna's research, it was stated that out of 894 household contacts of 160 patients, 464 people (65%) were found to be infected with TB germs. Family support will motivate the sufferer so that in the end the patient can take his medicine regularly until he recovers. Provision of information about health as well as health promotion as well as support from family and the environment can lead to social support for tuberculosis patients. (Raizada N,

Khaparde SD, Swaminathan S, Sarin S, Salhotra VS, Kalra A, et al. 2018; Hussain T, Tripathy SS, Das S, Satapathy P, Das D, Thomas B, et al. 2020; Li X, Wang B, Tan D, et al., (2018).

TB patients who take routine treatment can reduce the transmission of pulmonary TB. Pulmonary TB treatment takes a long time, as a result, treatment of pulmonary TB patients is prone to drop out, while irregular treatment threatens drug retention and causes problems. What can be done to prevent transmission to family members is to motivate tuberculosis patients to remain compliant in taking medication regularly. Coping mechanisms are all efforts made by individuals in overcoming stressful demands and arousing emotions. The coping mechanism used by the family in this case is the family's perception of tuberculosis and the efforts made by the family as an effort to prevent the transmission of mycobacterium tuberculosis germs to other family members. The family coping mechanism is a way of adjustment used by the family to deal with changes accepted by the family. Families are required not to give negative stigma to tuberculosis patients such as differentiating food menus, staying away from tuberculosis patients or not even being involved in family activities anymore. Family perceptions about tuberculosis will make the family try to prevent other family members from contracting tuberculosis. Michelle Lynn Tubman, 2016 in Uganda, 38.6 percent of families supported their family members in TB treatment and recovered.

Family support is needed by tuberculosis patients in undergoing treatment. Tuberculosis patients will not be able to undergo their own treatment. Family support is needed in order to achieve recovery in tuberculosis patients such as accompanying the control of treatment to the health center, reminding to take medicine, preparing nutrition and also taking medicine to take as well as continuing to provide motivation that the disease can be cured and the family will always help as long as the tuberculosis patient is undergoing treatment. There are many forms of support that can be provided by the family, including emotional support, instrumental support, informational support and appreciation support. Dave's research, 2016 in India found that if families were included in the Family Directly Observed Treatment (DOT) program, the success rate for healing TB patients was 95.8 percent of 344 TB patients. Endo Y et al, 2022; Grigoryan Z, 2022; Mebratu W, 2022) reported by health professionals that patients who have family support and come to the clinic accompanied by a family member or someone from within the community where they live, are usually those who successfully complete their treatment.

Compliance is individual behavior (for example: taking medication, adhering to a diet, or making lifestyle changes) according to therapy and health recommendations. The level of compliance can start from following every aspect of the recommendation to complying with the plan. Compliance with treatment is a behavior that shows the extent to which individuals follow recommendations related to health or disease. The family can be a very influential factor in determining individual health beliefs and values and can also determine the treatment program they can receive. Families also provide support and make decisions regarding the care of sick family members. According to Fang X.Y, Dan, Liu, Jun et al, recovery is achieved or not caused by irregularities or non-compliance with treatment so that efforts to improve adherence to treatment are a priority issue in pulmonary TB control programs.

D. CONCLUSSION

Knowledge plays an important role in the success of tuberculosis treatment. Tuberculosis patients and their families need to always be given counseling when patients make visits or when health workers conduct contact investigations in the field to increase their understanding of tuberculosis. For tuberculosis patients to comply with their treatment, cooperation from various parties is needed including families, communities and private practice

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