



MDR-TB PATIENT'S EXPERIENCE WHILE CONSUMING ANTI TB DRUGS IN MEDAN

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ABSTRACT

Drug-resistant TB threatens global TB care and prevention. It remains a major public health problem in many countries. Nurses are front line personnel who have contact with patients, and because of their role as other medical care providers, in the prevention and monitoring of adverse drug reactions caused by Anti-TB Drugs to improve the quality of care. The aim of the study was to explore in depth the experiences of MDR TB patients taking anti-TB drugs. This type of research is qualitative with a descriptive phenomenological approach. There were 10 participants, selected by purposive sampling technique. Methods of data collection with in-depth interviews. The data were analyzed by the Colaizzi analysis method. The themes obtained were 7 themes, namely the psychological response of MDR TB patients, lifestyle of MDR TB patients undergoing treatment, side effects of anti-TB drugs that occur in MDR TB patients, efforts to overcome side effects, expectations of MDR TB patients, perceptions of MDR TB patients in consuming drugs. Anti-TB, and the support needed by MDR TB patients while taking Anti-TB drugs. Based on the results of the study, it is recommended that nurses provide nursing education related to the side effects of anti-TB drugs, treatment planning and information about things that may occur during treatment need to be emphasized so that patients and families can prepare physically and mentally to complete treatment.

Keywords: *anti TB drugs; MDR-TB; patient's experience*

INTRODUCTION

A total of 30 countries with a high TB disease burden accounted for 86% of all estimated incidences worldwide, and of the 30 countries with the most TB cases, 2/3 of the total was dominated by India (26%), Indonesia (8.5%), China (8.4%), Philippines (6%), Pakistan (5.7%), Nigeria (4.4%), Bangladesh (3.6%) and South Africa (3.6%) (WHO, 2020). There are about 1.7 million people die in the world due to TB disease, while in Indonesia it is estimated that as many as 92,700 people die from TB disease, or around 11 people die from TB every hour (TB Indonesia, 2021). Globally the number of TB patients reported receiving treatment is increasing every year, from about 6 million in 2015 to 7 million in 2018 and 7.1 million in 2019. The annual number of patients reported to be treated with drug-resistant TB or rifampin (MDR/RR-TB) also increased from a total of 122,726 in 2015 to 156,205 in 2018 and 177,099 in 2019 (WHO, 2020).

The mechanism of drug resistance can be caused by genetic factors, factors related to previous treatment and other factors such as comorbidities with diabetes mellitus (Rumende, 2018). Factors related to treatment if treatment was incomplete or inadequate and also poor adherence. MDR TB develops due to errors in previous TB management such as initiation of inadequate regimens using first-line anti-TB drugs, addition of a single drug to a failed regimen, failure to identify pre-existing resistance and variations in the bioavailability of anti-TB drugs. (Rumende, 2018). The use of anti-TB drugs causes several side effects that can harm the patient. This is evidenced in research reported by El Hamdouni et al., (2020), in Morocco the results of

his research said 7.4%, of the adverse side effects were gastrointestinal disorders, 3.7% were cutaneous, 2.0% were hepatic, 1.14% were articular, 1.07% were immunoallergic, 0.7 % are neuropsychiatric, and 0.1% are ocular.

Although TB is a curable disease, adherence to treatment is paramount in treatment. If the patient is not obedient in taking the drug, it will lead to treatment failure. This can be a public health crisis and a health threat as it can infect other people easily. Failure of this treatment can also result in death in pulmonary TB patients (WHO, 2019). Nurses are front line personnel who have contact with patients, and because of their role as other medical care providers, in the prevention and monitoring of adverse drug reactions caused by Anti-TB Drugs to improve the quality of care. Approaches to and control of TB disease continue to evolve in all parts of the country regardless of different socio-economic and cultural contexts. Severe adverse side effects to drugs are especially critical factors affecting patient compliance with TB (WHO, 2019). Therefore, it is necessary to explore the implications of the patient's experience in taking anti-TB drugs to be able to develop MDR TB treatment management so that the success of patients undergoing treatment can be achieved.

METHOD

The study participants were MDR TB patients who were monitored by H. Adam Malik Hospital. Sampling in this study used a purposive sampling technique, namely setting criteria based on the characteristics of the selected subject in accordance with the research objectives (Polit & Beck, 2018). The number of participants in this study was 10 people. according to Polit & Beck (2018), the number of participants required in a qualitative study is 10 or less than 10 participants. The inclusion criteria in this study had the following criteria: 1) Patients aged > 18 years, 2) Patients with a definite diagnosis of MDR TB, 3) Patients who had experience taking anti-TB drugs at H. Adam Malik Hospital, 4) MDR TB patients who are not being hospitalized, and 5) Willing to be an informant. While the exclusion criteria in this study were: 1) MDR TB patients who did not undergo TB treatment, 2) Non-MDR TB patients, and 3) MDR TB patients in children.

The study was conducted from April to June 2021 at the H. Adam Malik Central General Hospital Medan. The study was conducted using in-depth interviews with MDR TB patients. Interviews were conducted by asking open-ended questions related to the experiences of MDR TB patients in taking anti-TB drugs. The validity of the data in this study was achieved in two ways, namely by using field notes during interviews and asking other researchers to re-read all transcripts and match existing themes from the transcripts that had been made by the researcher.

Data collection tools in this study were questionnaires to find out demographic data, interview guides, field notes, voice recorders and the researchers themselves. The main instrument in this research is the researcher himself (Polit & Beck, 2018). Researchers as a research instrument in the data collection process to maximize the data obtained related to the experience of MDR TB patients in consuming anti-TB drugs. Data analysis in qualitative research with phenomenological design, researchers used the method created by Colaizzi. This method provides simple, clear and detailed steps (Streubert & Carpenter, 2011).

RESULTS

Characteristics

Based on the demographic data found in this study, it was found that 50% of participants were aged > 60 years. With increasing age, physiological functions decrease due to the aging process, not only that, degenerative problems reduce the body's resistance so that it is susceptible to

infectious disease infections. (Kemenkes RI, 2016). Based on demographic data on gender in this study it was found that 70% of male participants suffered from MDR TB. This is in line with research conducted Azhar & Perwitasari, (2014), The tendency of the incidence of pulmonary TB in men (66.7%) is influenced by life style, differences in gender roles and differences in risk of exposure. Based on the length of time the patients took anti-TB drugs, the majority of participants had taken anti TB Drugs > 6 months, which was 70%, where participants had undergone > 6 months of taking anti-TB drugs so that they had received more information during the continuation phase of MDR TB treatment.

Theme

The results of this study describe the overall theme formed from the results of the analysis based on the participants' answers when the researchers conducted interviews that referred to the research objectives. Based on the thematic analysis, there were seven themes that were generated related to the experiences of participants of MDR TB patients in consuming Anti-TB drugs, namely: 1) Psychological responses of MDR TB patients, 2) Lifestyles of MDR TB patients undergoing treatment, 3) Side effects of Anti-TB drugs that occurred in patients. MDR TB, 4) Efforts to overcome the perceived side effects, 5) Expectations of MDR TB patients, 6) MDR TB patients' perceptions of taking Anti-TB drugs, 7) Support needed by MDR TB patients while taking anti-TB drugs.

Theme 1: Psychological Response of MDR TB Patients

Based on the results of data analysis that has been done, the researchers found that the psychological responses experienced by MDR TB patients were crying, despair and fear. These three psychological responses were expressed by participants during treatment and taking anti-TB drugs. This statement is in accordance with the expressions of some of the participants below:

“Until 3 months and 4 months, you know we just cry” (P1 L177)

“At first it feels like people want to die, lose, spirit of life” (P9 L73)

“I'm afraid ma'am” (P10 L14)

Theme 2: The Lifestyle of MDR TB Patients Undergoing Treatment

MDR TB patients undergoing treatment experience lifestyle changes by changing habits that can interfere with health, where previously most of the participants had habits that could interfere with their health before being diagnosed with MDR TB.

a. Changing behavior that can interfere with health

Based on the data obtained from the results of this study several participants revealed that participants changed behavior that could interfere with their health, including quitting smoking, quitting drinking alcohol, stop taking drugs and stop staying up late. This statement is in accordance with the expressions of some of the participants below:

“I quit smoking usually I stay up late or something at the shop, drink alcohol once in a while, we live here too, right? environment of the Batak people so it's like this. So the usual time to go home at 12 o'clock he doesn't stay up anymore, it's stopped. Anyway, time the past has stopped, let's start something new.” (P2 L255)

“What's clear is eeeee I don't smoke anymore than the smoker I'm strong, I haven't smoked in a long time last night I was lacking” (P3 L155)

“Yes, smoke, drink no more, I used to be a heavy smoker 3 packs 1 day so I am an alcoholic” (P8 L270)

b. Regulating nutritional intake

Based on the data obtained from the results of this study several participants revealed that participants regulate nutritional intake during undergoing treatment and taking anti-TB drugs. Participants consume milk, egg whites, fruits, coconut water, eat the patient's favorite food if decreased appetite, do not overeat and eat on time. This statement is in accordance with the expressions of some of the participants below:

“Oh, I eat a lot of food, take medicine, eat fruit, drink milk” (P1 L44)

“What kind of milk is that bread, that is, I just eat it, I eat a little bit, because if I eat a lot, I don't have any appetite and I immediately throw up” (P2 L176)

“Drink goat's milk twice a week. Just ensure it's these people turn it over. Usually, what kind of protein is gold protein, that's delicious too, right?” (P5 L340)

“No, that's why sometimes the kids buy them or not pokat juice. Sometimes drink coconut water” (P5 L370)

“Well, I'm making this, sometimes I don't know if it's me mung bean porridge want, so what's the name of the juice made by children” (P7 L115)

c. Obey the advice of health workers

Based on the data obtained from the results of this study several participants revealed that participants were obedient to follow the advice of health, persist in taking anti-TB drugs despite experiencing side effects. This statement is in accordance with the expressions of some of the participants below:

“I have to follow everything the doctor says yes, follow all the restrictions.” (P3 L233)

“Only the doctor said don't be afraid because the treatment comes from father want to consume and eat what we say will be cured. Yes, we have to obey” (P4 L18)

“In the past, the first time, I wasn't surprised, I don't know how or what hard times. Until the child is angry, what medicine is this, do you throw away? You are afraid throw away the rules like that” (P5 L174)

“What's important is what it's called, you have to obey the medicine you have to eat somewhat nutritious too” (P7 L110)

Theme 3: Anti-TB drugs side effects that occur in MDR TB patients

Based on the data obtained from the participants stated that the effect of The side effects felt during taking anti-TB drugs are: mild side effects, mild to moderate side effects, severe side effects.

a. Mild side effects

Based on the data obtained from the results of this study several participants revealed that participants experienced side effects in the form of no appetite, flu syndrome (fever, chills, weakness, headache, pain bones), cold sweats, palpitations, and itching. This statement is in accordance with the expressions of some of the participants below:

“I'm like staggering, then my nose is blocked, sometimes it's tight, then sometimes want to shiver, constipation, nausea. As soon as I get home yes yes, about an hour he arrived at the house that's what I feel anyway whether there is a stuffy, dry throat, stuffy nose, that's it that's fever, chills, sweating, then heart palpitations, The hand like a stroke person is shaking aaaaaa that's how it is. Then nausea, that there are about 3 days if I'm not mistaken” (P3 L48)

“Sometimes it's like this when you're gone, what's the name of eating? don't want to” (P7 L114)

“His nature is so restless. Lack of appetite. But helped by the same sweet to want to eat” (P9 L95)

b. Mild-moderate side effects

Based on the data obtained from the results of this study several participants revealed that participants experienced mild to moderate side effects in the form of confusion, mild nausea and vomiting, severe nausea and vomiting, skin reactions moderate allergies, vertigo, sleep disturbances, depression, gastritis, pain at the site injections, tremors, decreased consciousness, hallucinations, decreased Hb and aging skin color. This statement is in accordance with the expressions of some of the participants below:

“Before I wasn't black, you know, I wasn't black at all. The doctor said, ma'am you will burn her skin. So you don't have to treat it, it will go away on its own after finishing taking the medicine” (P1 L217)

“The second day, I'm already badly nauseous, can't help it already everything hurts, everything hurts, the head hurts, everything is over our nausea is so strong that we sweat what we want vomiting sweating wow that's the only thing I've ever felt I think it's better to just die like that” (P2 L145)

“Half a day imagine that you are aware you don't know you want to be rolled over, you want to be in it Look, after eating this eye medicine, it's only us who can open it he doesn't sleep well, he wants to be rolled over, right, don't we? will feel” (P4 L212)

“Treatment for two weeks I'm allergic to this skin is black skin black this blisters the drug is discontinued the drug is discontinued” (P6 L37)

“No, his Hb went down because he didn't want to eat. Less eat, less Continue to take medication and drink a lot, that's what the doctor said” (P7 L146)

c. Severe side effects

Based on the data obtained from the results of this study several participants revealed that participants experienced severe side effects including gastric bleeding, impaired renal function, and psychotic disorders (suicidal tendencies). This statement is in accordance with the expressions of some of the participants below:

“After I inject for 2 weeks aiiihhh I'm bleeding bleeding” (P1 L403)

“Yes, especially if you add your complaint of gout, you're eating there you can't eat this you can't drink that you can't” (P2 L260)

“It was carried out, it was said that I wanted to hang myself, even if I sinned, In religion hanging yourself is a sin, right, but I can't stand it at that time it was all thanks to all praying what was the last family support I can live” (P4 L205)

“Because of these side effects, I want to kill myself” (P4 L205)

Theme 4: Efforts to overcome the perceived side effects

Based on the data obtained from the participants stated that the efforts What is done to overcome the perceived side effects are: non-pharmacological therapy and overcoming complaints of side effects with medical therapy.

a. Using non-pharmacological therapy

Based on the data obtained from the results of this study several participants revealed that participants used non-pharmacology in overcoming the side effects felt during consuming anti-TB drugs, namely: consuming royal jelly, consuming aloe vera, giving massage to the knee joint, distracting with sleep rest, drink water, sort out similar drugs when taken, calm the mind, pray for healing and use lotion skin moisturizer. This statement is in accordance with the expressions of some of the participants below:

“At that time, it was suggested by the Puskesmas employee at that time that jelly was not wrong” (P4 L181)

“Yes, once a day so I made a trick I shared the medicine with one is the name, the one is my type, I take the medicine first approx. two types first, now it's half an hour or more or less half

an hour or an hour I drink two more types huh so that's it the tablet is neat, with the same type, but does not separate between types this will be one more endak so it's like his name. 3 tablets I immediately took 3 tablets” (P2 L211)

“That's it, people say that aloe vera is good for the stomach he said so. So what should I try to find? This is what I said cut off if you have a sister there, it's already big” (P5 L380)

“Mother gave me some slightly warm oils that I rubbed with them That's all alone because it's just like what the doctor said there is few side effects to it” (P7 L70)

b. Overcoming complaints of side effects with medical therapy

Based on the data obtained from the results of this study several participants revealed that participants used medical therapy in overcome the side effects that are felt while taking anti-TB drugs, namely: Infusions, antiemetic drugs, and blood transfusions. This statement is in accordance with the expressions of some of the participants below:

“Yes, adding a third day like that, it's even worse, I even arrived, I drop because of nausea and vomiting, so I put in my own IV” (P2 L150)

“He's nauseous, shaking, yes the doctor said. Monday I check here last week because I can't stand my medicine consult with this person then give this person medicine for heartburn if not it's wrong, it's a little better, what's wrong with the nausea, the stomach is a little better, so before my stomach I took the medicine its effect on the stomach” (P3 L56)

“Sometimes you want your Hb to go down because of the drug. Have you ever had time? add 2 bags of blood too” (P7 L116)

Theme 5: MDR TB patient expectations

Based on the data obtained from the participants stated that The expectations of MDR TB patients in consuming are: can recover after undergo treatment, get professional health services, end of TB disease in the world.

a. Can recover after undergoing treatment

The participants revealed that participants hoped to recover after undergoing treatment. This statement is in accordance with the expressions of some of the participants below:

“I'm sure I'm cured because of how many months I've been taking medicine I guess there is a change” (P1 L99)

“If you can, I hope you get well soon. Because it's the last stage. The rules are actual hospitalization” (P9 L152)

b. Get professional health services

The participants revealed that participants hope to get health services professional one. The attitudes of health workers they face give experience to patients in undergoing treatment for MDR TB. Officer attitude health that participants expect that health workers will provide friendly service, providing education about treatment and drug administration, and understanding the process of disease transmission. This statement is in accordance with the expressions of some of the participants below:

“I beg you, I ask my brothers and sisters later, please, let's fix it” the way we work, we have to really learn, that's our principle you have to be safe, it's only right that you learn how to transmit a disease don't take it a little bit, oh, oh, oh, it's dangerous to fight, it's contagious so we have to underestimate the patient suffering the patient like that's what happened” (P2 L197)

“Yes, hopefully my hope will continue to be even better if” can it be haa even this person is good what's the name of serving us really because we are patients, many don't know us, right how to do it, what is the medicine” (P7 L204)

“So if the medical people are the people from the health center, it's gentle, right? serve, don't yell, right?” (P8 L342)

c. End of TB disease in the world

Someone of the participants revealed that participants hope TB disease in the world can end soon. This statement is in accordance with the expressions of some of the participants below: *“Oh if I don't exist anymore I just want it as it's written, where yesterday was 2000, here it is (pointing to the vision board WHO mission) the plans of the medical department are said to be 2030 what they want it must be finished, there is no more TB disease” (P4 L305)*

Theme 6: Perception of MDR TB patients in taking anti-TB drugs

Based on the data obtained from the participants stated that the perception of MDR TB patients in consuming anti-TB drugs, namely anti-TB drugs helps patients recover from MDR TB, the side effects of anti-TB drugs can be disturbing activity and can even kill the patient.

a. Positive perception of MDR TB patients on anti-TB drugs

The participants revealed a positive perception of MDR TB patients on anti-TB drugs. Participants expressed feeling good development after consuming anti-TB drugs. This statement is in accordance with the expressions of some of the participants below:

“It's a bit better, isn't it, even though it hasn't recovered a bit better” (P3 L334)

“But after taking the medicine, there has been progress, is it okay? activity, usually just sleep uuuurrrrrrr” (P9 L74)

“Alhamdulillah, after being carried out it feels good” (P10 L20)

b. Negative perception of MDR TB patients on anti-TB drugs

The participants expressed their negative perception of anti-TB drugs. Participants in research This reveals scary because it is massive, increasing complaints With regard to side effects, the drug that must be consumed also increases, it can die because medicine is not because of disease, and the treatment that is being undertaken feels like hurt yourself. This statement is in accordance with the expressions of some of the participants below:

“The medicine for TB is terrifying and exaggerated” (P1 L179)

“This is why I will not die later because of illness, I will die because of That's medicine, right?” (P2 L191)

“Actually, we don't have treatment but we hurt ourselves. What is we don't experience it, we experience it, maybe it's true what that person said because I have experienced it” (P3 L133)

“Hahaha, that's how it is. What is this, why is it like killing what? how do you feel? Because of the effect of the drug earlier” (P5 L165)

Theme 7: Support needed by MDR TB patients while taking anti-TB drugs

Based on the data obtained from the participants stated that The support needed by MDR TB patients while taking anti-TB drugs are: family support, health worker support, PESAT organizational support and financial support.

a. Family support

The participants expressing family support is the main reason the patient remains enthusiastic undergoing treatment and taking anti-TB drugs despite experiencing side effects side. The motivation given by children, husbands, wives and parents strengthens patients undergoing treatment. This statement is in accordance with the expressions of some of the participants below:

“Children calling us will be more enthusiastic” (P1 L334)

“Only because I was given encouragement by my wife and children and the officers, This health, Ms. Yuyu, who often calls me, I have to the spirit must be enthusiastic, the wife must come again, the spirit must be strong” (P2 L155)

“Father, all are children. Cheer up mom, all the kids are excited. Don't want to be slack. Don't want it, it's true too” (P7 L161)

b. Health worker support

The participants revealing the support of health workers is the reason the patient stays enthusiasm to undergo treatment and consume anti-TB drugs. Officer role health workers who contact patients during medication hours and their motivation given by health workers to give encouragement and confidence to participants to recover from their illness. This statement is in accordance with the expressions of some of the participants below:

“Only because I was given encouragement by my wife and children and the officers, This health, Ms. Yuyu, who often calls me, I have to the spirit must be enthusiastic, the wife must come again, the spirit must be strong” (P2 L155)

“It was the new wife of the nurse from the health center who gave me the motivation, Don't be afraid, don't be afraid, get excited, that's the new first wife from The health center is the one that motivates the family, just go for treatment don't be afraid don't be afraid of age, God, you know” (P6 L317)

c. Social support

The participants express support from friends, neighbors and members of the PESAT organization where members in the organization are former MDR TB patients who have been declared cured. Their role in assisting with feeding control Medication helps patients to be on time in taking medication. They too as a place to share participants' experiences in discussing side effects that happened. This statement is in accordance with the expressions of some of the participants below:

“Yes, the neighbors often come too, even though they come, met me wearing a mask but they said it was fine so go sunbathe. Yes, it makes us excited” (P1 L302)

“That day at that time she was a girl, that person is an ex who is already an ex It's been 9 months since this girl has been healed, one Muslim and one Christian Well, that's what backed me up until I was called a cemen, brother, when I'm a boy a man like this, only me, a woman can say all kinds of things this person” (P4 L 253)

“Through this fast pace, there are a lot of inputs from them because right? Coincidentally, I feel that my companion has our first communication the first companion or not” (P8 L301)

DISCUSSION

The psychological response of MDR TB patients appears due to the patient's lack of knowledge about the disease and the treatment process. Participants revealed that they lost their enthusiasm for life. Tuberculosis often results in a poor quality of life, due to poor physical and mental health in patients suffering from the disease (Rebeiro et al., 2020). These psychological responses are largely related to the diagnosis and are often rooted in patients' fears of their own morbidity (Aibana et al., 2020). Changing behavior that can interfere with health begins with stopping smoking, drinking alcohol, staying up late and using drugs. In this study, it was found that 5 participants had quit smoking after being diagnosed with MDR TB. Education provided by health workers to participants during treatment affects smoking habits so that participants stop smoking. Smoking is a major risk factor for several chronic diseases (WHO, 2019). A study by Chuang et al., (2015) found smokers had the highest failure rate (33%) for TB treatment, and smokers had the most severe lung lesions based on chest x-ray assessment. Quitting the habit of drinking alcohol and using drugs was also revealed by participants in this study. Where these habits are factors that can affect non-adherence to treatment (Rumende, 2018).

TB infection is a disease known to affect nutritional status (Bacelo et al., 2017). Regulating nutritional intake is done by regulating the type of food and drink consumed. Participants consume milk, egg whites, fruits, coconut water, eat the patient's favorite food if there is a decrease in appetite, do not overeat and eat on time. In line with the research conducted Bacelo et al., (2017) Prevention of gastrointestinal disorders in TB patients can be done by eating on time, eating fresh foods with high protein and low fat. 7 participants in this study revealed consuming foods and drinks that contain protein. Nutritional management in tuberculosis patients is to provide adequate energy, high protein and supplementation that helps improve immunity (Toding, 2017). Adequate protein intake is essential for optimal antibody production (Iddir et al., 2020). Participants' inability to meet nutritional intake becomes a challenge in following the treatment process. Nutrition plays a big role in the treatment process, if protein intake is not met the drug cannot work optimally (Mussie et al., 2019).

MDR TB treatment is long-lasting, has severe side effects and poses adherence challenges. Patient compliance in following the treatment process has a positive impact on the success of MDR TB treatment. Participants in this study said taking anti-TB drugs everyday. Counseling conducted with health workers supports them to comply with taking anti-TB drugs. Patients need to be informed before undergoing treatment about the potential side effects that will occur so that they can prepare for the side effects they may experience. A total of three participants in this study experienced mild side effects in the form of no appetite, flu syndrome (fever, chills, weakness, headache, bone pain), cold sweats, palpitations, and itching. Research conducted Pachi et al., (2013) reported that cycloserine can cause neurological side effects because it is able to penetrate into the central nervous system where it acts as a partial N-Methyl-D-aspartate agonist which can cause headaches, dysarthria, hyperirritability (National Institutes of Health, 2014: Intini et al., 2019).

A total of 5 participants in this study experienced mild to moderate side effects in the form of confusion, mild nausea and vomiting, severe nausea and vomiting, moderate allergic skin reactions, vertigo, sleep disturbances, depression, gastritis, pain at the injection site, tremor, decreased consciousness, hallucinations, decreased Hb. and aging skin color. In line with the qualitative study conducted by Horter et al., (2016) found the side effects of drugs experienced by TB patients in the form of nausea and vomiting, loss of appetite, weakness, joint swelling, and pain, especially pain in the legs. Patients also report dizziness and a feeling like a hangover, changes in appearance through skin changes, blurred vision, burning, itching and diarrhea. In this study, it was also found that one of the participants experienced a decrease in Hb as a side effect that emerged from anti-TB drugs. This is in line with research conducted Sotgiu et al., (2012), who reported that 38.1% of MDR TB patients taking linezolid experienced side effects of anemia.

In participants who experienced side effects of depression in this study, doctors did not stop treatment because the severity of depression experienced by patients was not included in the category of severe depression. This is characterized by the patient not having the desire to hurt himself so that treatment is still given according to the management given by the doctor (Kemenkes RI, 2020). A total of 2 participants experienced severe side effects in the form of gastric bleeding, impaired kidney function and the tendency of participants to attempt suicide. This severe side effect occurred in 2 participants. Where one of the participants revealed that at the beginning of treatment for MDR TB, he wanted to hang himself and asked his family to help him end his life after undergoing treatment on the eighth day. Participants also expressed wanting to end their life because they were unable to withstand the side effects they felt after consuming anti-TB drugs.

One of the adverse drug reactions that occur in MDR TB patients is a psychotic disorder (suicidal tendency) where cycloserine is closely related to suicidal tendencies. These results are reinforced by studies conducted Pachi et al., (2013), who reported cycloserine neuropsychiatric side effects such as anxiety, hallucinations, depression, euphoria, behavioral changes and suicide occurred in 9.7%-50% of patients. The same results were also reported in the study Dela et al., (2017) who found depression and suicidal tendencies to occur in 14.38% of cases in his study. In the vast majority of cases cycloserine will be discontinued for rapid recovery of mental status and no recurrence of symptoms. Cases of increased uric acid levels were also found in this study. Where one participant revealed that the results of his blood laboratory examination found an increase in uric acid levels. Pyrazinamide and ethambutol have been associated with increased uric acid levels (Pham et al., 2014). Although often considered asymptomatic, severe hyperuricemia can lead to renal failure. Therefore, measurement of uric acid levels should be carried out especially in patients with pre-existing conditions.

In this study, it was found that the efforts made by patients in overcoming complaints of side effects from anti-TB drugs were consuming royal jelly, consuming aloe vera, giving massage to the knee joints, distracting by sleeping rest, drinking water, sorting out similar drugs when taken, calming the mind, pray for healing and use skin moisturizing lotion. Non-pharmacological interventions are categorized as body-based modalities (physical), mind-body methods (cognitive behavior), biologic-based therapies, and energy therapies (Bruckenthal, 2010; Brunner & Suddarth, 2014).

Based on the expression of one of the participants in this study, MDR TB patients used aloe vera in overcoming complaints of gastric disorders that occur due to side effects of anti-TB drugs. In a study conducted by Panahi et al., (2015), on the effect of aloe vera in the treatment of GERD, aloe vera was shown to be safe and well tolerated in reducing the frequency of all GERD symptoms without any side effects. Participants also revealed grouping similar drugs when taking medication to reduce nausea after taking anti-TB drugs. This is in line with the qualitative study reported by McNally et al., (2019), sorting out the drugs taken helps reduce complaints of nausea and vomiting that arise after taking the drug. Participants said that they drank lots of water to deal with side effects. Increasing fluid intake promotes systemic hydration which acts as an effective expectorant (Brunner & Suddarth, 2014). One of the participants in this study also revealed giving massage to the knee joint in an effort to overcome complaints of joint pain side effects. In line with the research conducted Ali et al., (2017) reported that participants in his study revealed that they felt relaxed after being given a massage intervention in arthritis patients.

Patients taking anti-TB drugs complain of severe nausea and vomiting. A total of 5 participants in this study said they experienced vomiting when taking anti-TB drugs, so that the fulfillment of nutrition was not adequate. This is in line with a study conducted by Horter et al., (2016) which reported that participants in their study experienced nausea, vomiting, and weakness when taking anti-TB drugs. Patients who experience severe vomiting can lead to dehydration. Participants said that the infusion was able to overcome complaints of weakness due to nausea and vomiting. The purpose of giving infusions to patients who experience severe side effects of nausea and vomiting is to meet the patient's fluid, electrolyte and nutritional needs (Brunner & Suddarth, 2014). Antiemetic administration is a therapy that is prescribed by a doctor in dealing with complaints of side effects of nausea and vomiting. In this study, participants were given antiemetic drugs to overcome complaints of side effects caused by anti-TB drugs.

Patients who experienced a decrease in Hb in this study revealed that they received blood transfusion therapy to overcome the problem of decreasing Hb that occurred. Blood transfusion is an effort to treat anemia. Red blood cell transfusion has been shown to be very effective in treating acute anemia (Melton & Haynes, 2006) in (Brunner & Suddarth, 2014). A total of 4 participants in this study believed that they would recover after undergoing treatment for MDR TB. The discussions they had with former MDR TB patients believed they could recover from their illness. Patient confidence in the progress of treatment believes the patient will be cured after completing MDR TB treatment (Akeju et al., 2017). The attitude of health workers is expected by participants so that health workers provide friendly services, provide education about treatment and drug administration, and understand the process of disease transmission. The perspective of health workers is critical to managing and controlling TB in general. Optimal understanding of health workers and their experience in the smooth treatment of MDR TB patients helps shape the epidemiology of the disease (Mussie et al., 2019). Therefore, the learning process of health workers affects how they view their work as health service providers, especially MDR TB.

In this study, participants expressed their hopes for health workers to understand the transmission process of MDR TB. Based on the experience of participants who underwent treatment, health workers did not understand the process of transmission of MDR TB disease. Some participants in this study also expected to get friendly service from health workers. Studies conducted Tadesse et al., (2013), reported negative attitudes of health workers and lack of social support contributed to patient failure to complete treatment. The end of TB disease in the world is a WHO target which is expected to be realized in 2035. This is a hope for one of the participants in this study. Efforts to accelerate the elimination of TB in 2035 are certainly not an easy thing and there will be many challenges that must be faced. The participation of medical personnel, the establishment of systems and policies related to health and scientific knowledge and new innovations that can affect the prevention and treatment of TB.

A total of 4 participants in this study revealed that they experienced development and felt that their health had improved after consuming anti-TB drugs. In line with the research conducted Akeju et al., (2017), participants in his study expressed feeling better health with the start of treatment, participants in his study also revealed that they believed and believed in the efficacy of medical treatment which was one of the reasons they adhered to treatment. In this study patients expressed positive benefits from MDR TB treatment. Phenomenological studies conducted Aibana et al., (2020), who found a high pill load had a negative impact on patients' experience, one of the participants in his study said that taking 8-20 pills at a time had a negative impact on their experience with TB treatment. The side effects of the drug that the patient feels are worse than the MDR TB disease itself (Isaakidis et al., 2013).

The family is the first source for socialization and teaching about health and disease. The primary role of the family is to provide physical and emotional resources to maintain health and support systems in times of crisis such as illness and disability (Brunner & Suddarth, 2014). 8 participants in this study revealed that family support made participants strong and enthusiastic about undergoing treatment. The type of support that participants get from their families is in the form of attention given, supervising participants taking medication, assisting in fulfilling nutrition, monitoring side effects experienced, accompanying participants to come to health services, as well as providing motivation and prayer to participants. The role of the family in assisting the patient's treatment process has helped the success of treatment. McNally et al., (2019), said important family support that can be provided includes emotional, psychological, nutritional and financial. In this study, one participant kept his illness a secret from his family.

The reason was partly because the participants did not want to make their family worried and afraid of their health condition. This is very unfortunate because it results in participants not getting support from their families. A total of 2 participants in this study revealed that the motivation given by health workers increased their confidence to recover. The importance of health workers discussing treatment, side effects, and the length of the treatment process with patients before starting treatment is necessary so that patients can prepare themselves and know the side effects that may be experienced while consuming anti-TB drugs (Akeju et al., 2017).

CONCLUSION

The social support received by MDR TB patients in undergoing treatment and taking anti-TB drugs plays an important role in the success of treatment. A total of 3 participants in this study revealed that the role of friends and neighbors in strengthening the spirit of participants had increased participants' confidence to recover. The support from the Beneficial Health Fighters organization (PESAT) expressed by the participants also contributed as a Drug Drinking Supervisor (PMO) for MDR TB patients.

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