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Original Article

Effects of Counseling on the Quality of Life of MDR Lung TB Patients

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ABSTRACT

Research shows initiatives to combat the TB virus. Patients with MDR-Lung Tuberculosis are worried about their quality of life, according to recently completed research in Indonesia. Patients with MDR-TB may benefit from counseling to enhance their quality of life. Study aims to analyze effect of counseling on changes in the quality of life of MDR-TB patients. A quasi-experimental design with a randomized pretest and posttest control group is used in this kind of research. 38 patients from the Undata Palu Hospital who were randomly chosen between May and November 2022 made up the study's samples. The data were then analyzed using the Wilcoxon test, the Mann Whitney test, and the two mean difference tests. Each participant receives counseling sessions seven times over the course of a six-month period. Counseling using the SOWAN approach is supported by observation, well-being, action, and nursing. The research ethics number for this study is 0011.7/KEPK-KPK/IV/2022 This research received a research ethics number 0011.7/KEPK-KPK/IV/2022 from the Research Ethics Commission of the Ministry of Health Poltekkes Palu. The result of this research show it has been shown that counseling MDR lung TB patients at Undata Palu Hospital improves their quality of life to the point that ongoing counseling is necessary for MDR lung TB patients and can reduce the occurrence of MDR TB.

Keywords: MDR-TB, Quality of Life, Counseling Model.

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INTRODUCTION

Even if efforts to control the DOTS approach have been made, tuberculosis remains one of the major public health issues in the world. Research in a number of nations, including India, Zambia, Peru, Morocco, Uganda, and Vietnam [1–9], demonstrates efforts to control the TB disease. According to recent research conducted in Indonesia, patients with MDR-Lung TB have concerns with their quality of life[10–17]. Counseling is useful for improving the quality of life of MDR-TB patients[18–27].

There are an estimated 10.4 million new TB cases (incidents) in 2017, of which 5.9 million (56%) are among men, 3.05 million (34%) are women, and 1 million (10%) are children. Data are available for 202 nations and regions, which account for more than 99% of the world's population. 1.2 million (11%) of all new TB cases were among people living with HIV. India, Indonesia, China, Nigeria, Pakistan, and South Africa have the highest prevalence rates, accounting for 60% of all new cases. The success of TB control in the six countries will determine global advancement[28]. TB is a significant issue in

Indonesia. According to TB, TB/HIV, and MDR-TB (Multi-Drug Resistant) indices, Indonesia has a significant burden. Indonesia was the second-largest contributor to TB cases worldwide, behind India, according to the 2014 tuberculosis prevalence survey. The prevalence of TB with bacteriological proof is 759 per 100,000 people aged 15 and older, compared to 338 per 100,000 people in the Palu region[29].

A significant public health issue, TB medications represent a threat to the advancement of TB treatment and control. Antibiotics are misused in chemotherapy for TB patients who are susceptible to the treatment, which leads to the development of drug resistance. In general, places with inadequate TB control programs are where drug resistance develops. A drug-resistant TB patient can spread the disease to others. According to WHO estimations, there were approximately 480,000 cases of MDR-TB in 2013 with a 150,000 case annual death rate. After heart disease, stroke, diabetes, and hypertension, TB is the sixth most common cause of mortality. According to estimates, between 2002 and 2020, 2 billion people will be infected with tuberculosis, of those, 5 to 10 percent will acquire the disease, and 40 percent of those already ill will survive[30].

Tuberculosis needs special treatment to prevent transmission and higher mortality. In addition, the treatment phase for MDR-TB sufferers is longer compared to cases of pulmonary TB that are not resistant to Anti Tuberculosis (OAT) drugs. Drug resistance is a problem in tuberculosis management strategies and is currently a global public health problem that requires follow-up efforts. Basically, this resistance results from the treatment of inadequate TB patients as well as transmission from OAT-resistant TB patients[31].

Proper identification and diagnosis of MDR-TB patients can help in the care and recovery of MDR-TB patients. Long treatment will be very tedious for patients by consuming OAT for approximately 2 years, so the support from the next of kin will provide life support for MDR-TB patients so that this affects medication adherence and quality of life. Counselingor psychotherapy can be used in dealing with MDR TB patients. This technique can be chosen to meet the needs of a case, use systematically from a broader range of interventions to deal with specific problems such as MDR-TB patients so that patients have a good quality of life and improve their health status[32].

Principally, complete individual counseling, interviews carried out are all stages of counseling starting from the stage of relationship development, the preparation of counseling problem models, the preparation of counseling objectives for strategy implementation and follow-up or evaluation[33]. The quality of life of MDR-TB patients is greatly influenced by several factors, but studies on the quality of life of patients who are also seen from changes in conversion are still lacking. The implementation of counseling in Indonesia has been running for more than 30 years, however, the problems that occur in the world of guidance and counseling now are not much different from the problems that occurred in the past society. Often the guidance and counseling programs that are organized are ignored and not even desirable.

One of the factors causing the above problems occurs because the patient does not understand the disease makes the various counseling and guidance programs unattractive and not needed by the patient. For that reason, before we discuss more in guidance and counseling we need to discuss the problems in organizing the counseling program and the problems regarding counseling itself. Guidance and counseling program problems need to be done to improve the quality of life of patients by using modules or guidelines for guidance counseling. Therefore, this study aims to look at the effect of counseling on changes in thequality of life of MDR-TB patients.

METHOD

A quasi-experimental design with a randomized pretest and posttest control group is used in this kind of research. 38 patients from the Undata Palu Hospital who were randomly chosen between May and November 2022 made up the study's samples. The data were then analyzed using the Wilcoxon test, the Mann Whitney test, and the two mean difference tests. Each participant receives counseling sessions seven times over the course of a six-month period. Counseling using the SOWAN approach is supported by observation, well-

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RESULTS

The results of research conducted at the Undata Hospital in Palu from May-November 2022, the number of MDR Pulmonary TB patients as many as 38 patients, obtained the following results:

Table 1. Characteristics of MDR Lung TB Patients.

Variable	n	%
Groups		
Interventions	20	52,6
Controls	18	47,4
Sex		
Males	21	55,3
Females	17	44,7
Ages (years)		
20-30	6	15,8
31-40	13	34,2
41-50	8	21,1
51-60	11	28,9
Education		
Elementary	8	21,1
Junior High School	5	13,2
Senior High School	17	44,7
Higher Education	8	21,1
Profession		
Housewives	12	31,6
Civil Servants	5	13,2
Private jobs	21	55,3
Earning		
Enough	29	76,3
Less	9	23,7
Smoking Habit		
Smoking	12	31,6
Not smoking	26	68,4
Total	**38**	**100**

MDR Lung TB patients from the intervention group were 20 (52.6%) patients and from the control group were 18 (47.4%) patients. MDR Lung TB patients are male as many as 21patients (55.3%) while female patients are 17 patients (44.7%). Most MDR pulmonary TB patients came from the age group of 31-40 years as many as 13 (34.2%) patients and the least of the 20-30 years age category were 6 (15.8%) patients. The highest level of education in pulmonary TB patients is SMA as many as 17 patients (44.7%) and the least number of SMPis 5 (13.2%) patients. Most MDR pulmonary TB patients have private sector work in 21 (55.3%) patients, and the fewest are PNS 5 (13.2%) patients. Patients who had the highest income were 29 (76.3%) and low income were 9 (23.7%). Patients who had the habit of smoking were 12 (31.6%) and not smoking 26 (68.4%).

Table 2. Mann Whitney Test Results from Post-test Intervention and Quality Control Groups for MDR TB Patients.

Two groups independent test	Sig.
Interventions and controls Groups	0,001

Table 2 explains that the p-value (0.001) is smaller than 0.05, so there is a significant difference between the quality of life of MDR TB patients who are counseled with the control group, so it can be concluded that the counseling given has an influence on the quality of life of MDR TB patients.

Table 3. Results of the Wilcoxon Quality of Life Test for the MDR TB Patient Intervention Group.

Two groups dependent test	Sig.
Quality of life	0,001

Table 3 explains that the p-value (0.001) is smaller than the value of 0.05, so there is a significant difference between the quality of life of MDR TB patients before and after being given counseling, meaning that counseling given to MDR TB patients has a good influence on the quality of life.

Table 4. Wilcoxon Quality of Life Test Results Based on Domain Intervention Groups for MDR TB Patients.

Two groups dependent test	Sig.
Domain One	0,007
Domain Two	0,001
Domain Three	0,001
Domain Four	0,001

Table 4 explains that the p-value of the four domains of quality of life for MDR TB patients is smaller than the value of 0.05, so there is a significant difference between the quality of life of MDR TB patients before and after being given counseling, meaning that counseling given to MDR TB patients has a good influence on quality of life-based on the four domains of quality of life.

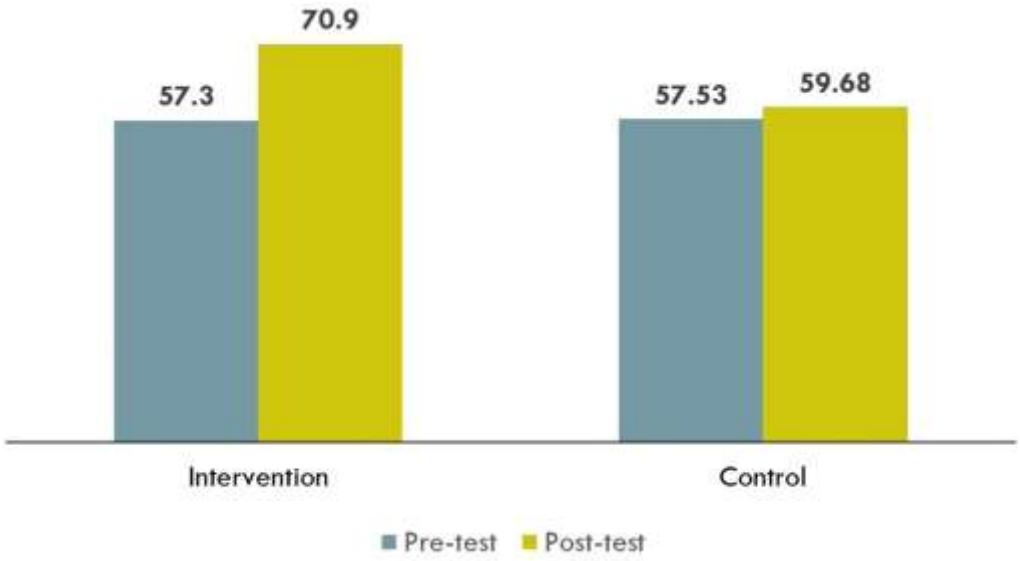

Figure 1. Graphic Comparison of Mean Quality of Life of MDR-TB Patients before and after counseling.

DISCUSSION

Because it is linked to social and economic issues, the TB problem in Indonesia is still challenging to control. It is brought on by poverty, malnutrition, endurance, slum living conditions, inadequate health facilities, delay or lack of TB program fees, and many other factors. Men are more likely than women to be MDR Lung TB patients because men are at higher risk. Male patients smoke more frequently than female patients, which worsens a variety of health issues, including lung ailments. TB affects many productive ages and raises the community's mortality rate, particularly in underdeveloped nations. The age at which a person is ready to work or generate something for both themselves and others is known as the productive age. Patients with MDR pulmonary TB over the age of 40 may become unproductive or even a burden to their families if they get pulmonary TB at that time.

Due to the stigma associated with the illness, certain nations, including Bangladesh, Vietnam, and Thailand, have different notification policies for pulmonary TB in men and women. Women avoid using health care because they fear receiving a negative assessment from the community. Men are more likely than women to smoke, which increases the risk of developing pulmonary TB. Smoking decreases the lungs' ability to fight off bacteria, which can make TB symptoms worse. Passive smokers who breathe in cigarette smoke will also be more susceptible to TB infection[34].

In Indonesia, TB is a serious public health concern. Poverty difficulties and public health issues are interrelated. At least about 1.3 billion people in the world are poor people, those who have to live on less than 1 US $ per day. The relationship between disease and poverty can be like vicious cycles. Because it is poor, a person will be malnourished, live in an unhealthy place, and cannot properly maintain health. Income is a measure that is often used to look at economic conditions in a group of people. The better the socio-economic conditions of the community the higher the percentage of people who use health services. The use of health services will improve one's health status so that it improves the quality of life[35].

The findings indicate that family income has an impact on TB patients' quality of life and is frequently linked to a decline in physiological function. Although the government provides free MDR-TB treatment as part of a program, patients and/or their families are still responsible for other costs associated with the sickness and treatment (such as missed income, transport to medical facilities, laboratory tests, emergency management, etc.). In India, one-third of MDR-TB patients are compelled to leave school or start working to help support their families. Patients and their families may occasionally need to sell home belongings, borrow money, or a portion of their savings to pay for medical expenses. Patients have the option of stopping their treatment and going back to work. Patients could decide not to continue their treatment and instead go back to work[36].

A person's view of their situation in life in relation to their objectives, aspirations, standards, and worries is referred to as their quality of life. This perception is influenced by the cultural environment and values in which they live. This is a broad notion that influences a person's physical health, psychological condition, dependency level, social connections, personal views, and relationship with future environmental aspirations[37].

Counseling is a form of psychotherapy that is used to help a patient overcome the psychological problems he faces. Counseling is a process where someone who has difficulty is helped to feel and then act in a way that is more satisfying to him, through interaction with someone who is not involved, namely the counselor. The counselor provides information and reactions to encourage clients to develop behaviors to relate more effectively to themselvesand the environment[38].

The duration of counseling is between 8 to 10 meetings which are usually held 2 or 3 times a week with a meeting time of 30 to 60 minutes, which depends on the dynamics of counseling that occurs. In helping to alleviate problems with the client (counseling usually the counselor will do a good schedule between 8 to 10 meetings that will be held for several weeks to produce a productive counseling[39].

A distinct concept is health-related quality of life (HRQoL), which describes how people's symptoms and medical issues affect their quality of life. Since health is the primary concern, HRQoL is favoured over quality of life in the context of health. Health status is referred

to as HRQoL, which is viewed as an increasingly complicated continuity in patient outcomes, biochemical and physiological parameters, symptoms, and perceptions of general health[40].

A person's view of his or her place in life as seen through the cultural lens and value system of the society in which they reside is referred to as their quality of life. This concept is related to an individual's focus, expectations, level of living, enjoyment, and sense of purpose in life. This is a broad notion that encompasses one's relationship to the environment, as well as their physical and psychological well-being, level of freedom, social relationships, and personal views[41].

A patient's perspective of his or her situation in life, which encompasses four categories, namely the physical, psychological, social, and environmental domains, is referred to as the quality of life of MDR-TB patients. These four domains consist of various factors that are closely related. The physical domain consists of an assessment of his needs in therapy, how far physical pain prevents him from doing activities, vitality in daily activities, work, satisfaction in sleep and ability to get along with the surrounding environment. While the psychological domain consists of accepting one's own condition, assuming that he is meaningful or dissatisfied with himself and in the social domain only consists of support from friends, sexual conditions and satisfaction with personal relationships. Environmental domain how far the patient is comfortable with his environment. Regarding his health, availability of information, finance, recreation and so on.

There are many things that cause poor quality of life in MDR-TB patients so that only 18% contribute to smoking history and medication adherence to the quality of life of MDR- TB patients. Microbiological factors, clinical factors, health worker factors, patient behavior factors or other disease factors are some of the causes of poor quality of life of MDR-TB patients.

Limitations experienced by the study while conducting this research include, the measurement of quality of life is only done at the end of the study, not done at the beginning of the study, retrospective data retrieval is conducted so this research is vulnerable to information bias, some respondents have difficulty in increasing information back that has occurred In the past, records in the hospital status book were still incomplete, so many respondents' addresses were rather difficult to trace, the number of samples in this study was limited, so as to reduce the level of precision in the study results.

CONCLUSION

Counseling MDR Lung TB Patients at Undata Palu Hospital has an impact on enhancing the quality of life of MDR Lung TB Patients in Palu Undata Hospital such that ongoing counseling is required for MDR Lung TB Patients and can lower the incidence of MDR TB.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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