QUALITY OF LIFE OF DOTS TUBERCULOSIS PATIENTS BASED ON DOMAIN REVIEW

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ABSTRACT

Pulmonary tuberculosis was a chronic and contagious disease. In 2022, the Ministry of Health identified more than 700.000 cases of tuberculosis, the highest number since the tuberculosis program became a national priority. Tuberculosis disease affected the quality of life in all aspects of life: physical, psychological, social and environmental. Low quality of life was one of the factors causing the low recovery rate of tuberculosis. The aim of this study is to analyze the quality of life in tuberculosis patients based on domain review at the DOTS-TB Polyclinic dr. Soedarso Hospital. Descriptive research with a quantitative approach and sampling using accidental sampling technique. The sample in this study amounted to 40 people and had met the inclusion criteria, namely tuberculosis patients who were undergoing treatment in the initial phase and advanced phase at the DOTS-TB Polyclinic dr. Soedarso Hospital, patients who could read in Indonesian and were willing to become respondents and follow the research stages until the end by first filling out informed consent. Statistical tests found that most respondents were in the late elderly age group (27.5%), male (62.5%), the last education was high school and college (42.5%), married (70%), working (55%) and a long history of treatment for ≤ 2 months and 3-6 months (35%). In general, patients at the DOTS-TB Polyclinic dr. Soedarso Hospital had a bad quality of life category in the domain of physical function, physical role, emotional role, energy, social function, pain and general health, while in the mental health domain most respondents had a good quality of life category.

Keywords: Quality of Life, TB-DOTS and Short Form-36

INTRODUCTION

Pulmonary tuberculosis is a long-term infectious and contagious disease and can spread from one person to another through the air (Oktaviani et al., 2023). The results of the WHO (World Health Organization) survey in 2018, this bacterial infectious disease became one of the 10 leading causes of death after HIV / AIDS and became a global concern.

Based on the Global TB Report data in 2022, Indonesia is the second position of countries with the highest tuberculosis cases in the world with an estimated 969.000 cases with an incidence rate of 354 per 100.000 population (WHO, 2022). In 2022, the Ministry of Health and all medical personnel managed to identify more than 700.000 cases of tuberculosis, the highest number since the tuberculosis program

became a national priority (Kemenkes, 2023). Based on the report of the tuberculosis control program in 2022, West Kalimantan was recorded to have an estimated TB incidence of 19.586 cases and confirmed TB cases of 12.899 cases.

Based on the Pontianak City Health Department profile, the total number of TB cases in 2021 was 1.621 cases and increased in 2022 with 2.262 cases with details of cases in each sub-district, namely West Pontianak with 384 cases, Pontianak Kota with 266 cases, South Pontianak with 176 cases, Southeast Pontianak with 117 cases, East Pontianak with 261 cases and North Pontianak with 300 cases and outside the region with 758 cases (Dinkes Pontianak, 2023).

Based on the results of preliminary studies at the *at the DOTS-TB Polyclinic dr. Soedarso Pontianak Hospital*, which is a referral regional hospital in West Kalimantan, it was found that the number of TB cases in the 2021 period was 239 cases and in the 2022 period there were 448 cases, while in the 2023 period from January-November there were 443 cases.

Based on PERPRES Number 67 of 2021, the achievement of cases is 65 per 100.000 and a decrease in mortality rate to 6 per 100.000 people. Meanwhile, according to data from the Indonesian Health Profile in 2021, it is known that the number of tuberculosis cases was 141 per 100.000 people in West Kalimantan Province, so it can be seen that tuberculosis cases in West Kalimantan still do not reach the national target (Kemenkes RI, 2022).

Quality of life is one of the criteria used to determine the application of health services, which includes birth, morbidity, mortality and disability (Fitriyadi & Era, 2023). Low quality of life can cause complications and lead to disability or even death, so it is important to measure quality of life in patients. Tuberculosis can affect various aspects of life, such as physical, functional, psychological, and social life. Based on the findings of the Health Research and Development Agency of the Republic of Indonesia, one of the factors causing the low recovery rate of tuberculosis is a decrease in the patient's quality of life.

Nurses as providers of nursing care that includes patients bioholistics have a vital role in helping to improve the quality of life of tuberculosis patients. The role of the nurse can also help the Indonesian government's efforts to overcome tuberculosis. Based on the description above, the author is interested in compiling research on "Quality of life of DOTS Tuberculosis patients based on domain review at the DOTS-TB Polyclinic dr. Soedarso Hospital".

LITERATURE REVIEW
Concept Of Tuberculosis

Tuberculosis is an infectious and chronic disease. It is caused by the obligate aerobic bacterium *Mycobacterium tuberculosis*. The bacteria are rod-shaped and acid-resistant. Tuberculosis bacteria can survive for months in a humid, cool and dark environment (Yuningsih et al., 2022).

Tuberculosis is divided into two terms, latent TB and active TB. Latent TB is an individual who has been infected with *Mycobacterium tuberculosis* in their body but has not shown clinical manifestations and cannot spread to others. However, if the individual takes a tuberculin test and blood test, a positive result will be obtained. Active TB is an individual who has been infected with *Mycobacterium tuberculosis*, has shown signs and symptoms of

tuberculosis and can transmit to others (Centers for Disease Control and Prevention, 2022).

Based on the definition above, it can be concluded that tuberculosis is a contagious infectious disease with long-term effects caused by Mycobacterium *tuberculosis* bacteria. This bacterium is very easy to find in tissues that are rich in oxygen content, so the lungs are the prediction site for tuberculosis disease. Generally, *Mycobacterium tuberculosis* infects the lungs and a small percentage infects other organs.

Quality Of Life

Quality of life is an individual's perception of their position in life, both in terms of the cultural context and the value system in which they live, and life has to do with the goals, expectations, standards, and focus of life, which includes several aspects at once, including aspects of physical conditions and psychological, social, and environmental aspects of daily life (Ariyanto et al., 2020). Based on the previous definition, it can be concluded that quality of life is an evaluation of an individual's life and includes complex matters of health, mental condition, belief in self-assessment and ability, socializing relationships and relationships with the surrounding environment.

The physical health domain explains that being physically healthy can affect a human's physical activity. Individual physical health can be evaluated based on seven important factors, including dependence on drugs both alternative medicines and herbal medicines as well as medical treatment, individual energy and weakness, physical mobility and ability to move, comfort and pain, rest, ability to use maximum energy in work and ability to move in daily activities.

The psychological domain explains that mental states include positive emotions, physical performance and images, negative emotions, thinking, learning, concentration, memory, self-esteem and individual beliefs (Supriani et al., 2021). So, low quality of life in an individual can be seen by not accepting the state of the body and its performance, often feeling anxious, lonely, hopeless or depressed, disturbed concentration in doing work, lack of spiritual belief and being unable to enjoy the life.

The social relationships domain relates to a person's ability to relate to others and includes personal relationships, social support and sexual relationships. Within the social domain, relationships occur when individuals establish socialization relationships between at least two people and influence others. The life of someone who has a good quality of life is in line with relationships with others because, by communicating, an individual can find themselves (Yunianti & Budiani, 2016).

The environmental domain is all things related to the environment that affect a person's quality of life. The environmental domain includes eight important items, including physical security and safety, home environment, financial support that will support daily life, health care and socialisation, access to new information, recreation/leisure opportunities, physical environment such as noise, pollution, traffic, and weather, transportation provision (Theofilou, 2013).

Short Form-36

The SF-36 questionnaire is one of the standardized instruments for assessing quality of life, especially for patients with chronic diseases.

The SF-36 questionnaire consists of eight domains, namely physical function, physical role, body pain, general health, vitality, social function, emotional role, and mental health. Furthermore, this domain is divided into two, namely the physical component and the emotional component.

This questionnaire has a total of 36 questions, consisting of physical domain (10 questions), emotional function domain (5 questions), social function domain (2 questions), physical state domain (4 questions), emotional state domain (3 questions), pain domain (2 questions), fatigue domain (4 questions), and general health domain (6 questions).

Questions from each domain are averaged to create eight main scores, and questions that are not answered (left blank) are not taken into account when calculating the main score. The SF-36 manual recommends using norm-based scores (NBS) or normative mean scores instead of using 0-100 scores to simplify data interpretation. A general population normative mean score can be built into the scoring algorithm so that clinicians and researchers do not need to remember the normative score for each domain. With the normative mean score, each domain is assigned the same mean score of 50 and the same standard deviation of 10. Any domain score below 50 is said to be below average, and vice versa (Koleangan et al., 2019).

The significance of this research is to increase knowledge about the quality of life of tuberculosis patients. In addition, this research is expected to develop the science of medical-surgical nursing, especially in the respiratory system with the respiratory system disease "Tuberculosis." In addition, the results of the study can provide

input for health care institutions in helping patients with tuberculosis improve their quality of life so that they can provide the best health services and increase the recovery rate of tuberculosis.

The formulation of the questions in this research included identifying the characteristics of respondents at the DOTS-TB Polyclinic of dr. Soedarso hospital based on age, gender, education, marital status, employment status, and length of treatment. In addition, this research also identifying the description of the quality of life of tuberculosis patients during the treatment program at the DOTS-TB Polyclinic of dr. Soedarso hospital based on domain review.

RESEARCH METHODS

This research method is descriptive with a quantitative analytic approach to determine the quality of life in tuberculosis patients based on a review of the domain of tuberculosis patients at *at the DOTS-TB Polyclinic dr. Soedarso Hospital* Pontianak City. This research was conducted at the TB-DOTS Polyclinic of RSUD dr. Soedarso Pontianak City. This hospital is located at Jl. dr. Soedarso No. 1, Bangka Belitung Laut, Southeast Pontianak District, Pontianak City, West Kalimantan.

The target population of this reasearch were all tuberculosis patients who received treatment at the DOTS-TB Polyclinic dr. Soedarso Hospital Pontianak City. The total population who received treatment at the Pontianak City in 2023 (January-November) was recorded at as many as 443 people, for an average of 40 patients per month. The samples of this research were tuberculosis patients at the DOTS-TB Polyclinic of dr. Soedarso hospital who received treatment for

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pulmonary TB in the early and advanced phases during the data collection process, which took place in February 2024.

The sampling technique used in this research is accidental sampling. In this study, researchers set the research time for two weeks during the data collection process. Based on the criteria that have been determined, the number of samples obtained was 40 people.

The measuring instrument used in the research was the Short Form-36 questionnaire. The SF-36 questionnaire is a standardized tool for assessing quality of life, especially for patients with long-term illnesses. The SF-36 questionnaire consists of eight main domains, namely physical function, physical role, pain in the body, general health, energy/vitality, social function, emotional role, and mental health. Furthermore, these domains are divided into two, namely the physical component and the mental component.

In the Short Form-36 questionnaire, the reliability and validity test were conducted by researcher Oki Nugraha in 2022. The reliability test of the Indonesian-language SF-36 questionnaire was conducted using *Cronbach alpha* analysis and found that the questionnaire was reliable and valid. Data analysis used univariate analysis, which aims to see the frequency distribution of the variables studied using the SPSS version 25 application.

RESEARCH RESULT

Table 1. Characteristics of Respondents Based on Age, Gender, Education, Marital Status, Employments Status and Length of Treatment (f=40)

Respondent Characteristics	F	%
Age Group		
17-25 Years	9	22.5
26-35 Years	5	12.5
36-45 Years	7	17.5
46-55 Years	7	17.5
56-65 Years	11	27.5
>65 Years	1	2.5
Total	40	100
Gender		
Female	15	37.5
Male	25	62.5
Total	40	100
Education		
Not in School	0	0
Graduated from Elementary School	0	0
Graduated from Junior High School	6	15
Graduated from High School	17	42.5

Respondent Characteristics	F	%
Age Group		
Graduated from Collage	17	42.5
Total	40	100
Marriage Status		
Unmarried	8	20
Married	28	70
Widower/Widow	4	10
Total	40	100
Employment Status		
Not Working	18	45
Work	22	55
Total	40	100
Duration of Treatment		
≤ 2 Months	14	35
3-6 Months	14	35
> 6 Months	12	30
Total	40	100

Based on the age group, the highest percentage of respondents was obtained in the range of 56–65 years, namely 27.5%, or as many as 11 people. In addition, the age group with the lowest percentage is > 65 years, namely 2.5% as many as 1 person, besides that, most of the respondents are male, at 62.5%, namely 25 people. In addition, almost half of the respondents were female, namely 37.5%, or as many as 15 people.

The distribution of characteristics based on the latest education found that almost half of the respondents had a history of education with high school and college graduates, namely with the same percentage of 42.5% as many as 17 people. A small proportion of respondents had a history of junior high school of 15%, as many as 6 people. The distribution of characteristics based on marital status found that most respondents had a marital status in the married category, with a percentage of 70%, namely 28 people. While a small proportion of respondents had a marital status of widower or widow, with a percentage of 20%, as many as 4 people.

The distribution of respondents' employment status found that most respondents work at 55%, or as many as 22 people. In addition, almost half of the respondents did not work, with a percentage of 45%, or as many as 18 people. Based on the history of the length of treatment, the highest percentage was the length of treatment for ≤ 2 months at 35%, namely 14 people. This is the same as respondents with a history of 3-6 months of treatment. While the lowest percentage is the length of treatment with a time of > 6 months by 30%, namely 12 people.

Table 2. Characteristics of Respondent's Quality of Life (f=40)

Quality of Life Domain	Frequency (f)	Percentage (%)
Physical Function		
Good	10	25
Bad	30	75
Physical Role		
Good	5	12.5
Bad	35	87.5
The Role of Emotions		
Good	18	45
Bad	22	55
Energy		
Good	7	17.5
Bad	33	82.5
Mental Health		
Good	23	57.5
Bad	17	42.5
Social Function		
Good	11	27.5
Bad	29	72.5
Pain		
Good	13	32.5
Bad	27	67.5
General Health		
Good	8	20
Bad	32	80
Total	40	100

The characteristics of respondents based on quality of life showed that most had a bad quality of life (physical function) of 75%, namely 30 people. While a small proportion had a good quality of life (physical function) of 25%, namely 10 people, In addition, of the 40 respondents, almost all respondents had a bad quality of life (physical role) of 87.5%, namely 35 people. While a small proportion of respondents had a good quality of life (physical role) of 12.5%, namely 5 people.

Based on the role of emotions domain, most respondents had a bad quality of life (role of emotions) of 55%, as many as 22 people. In addition, almost half of the respondents had a good quality of life (role of emotions), with a percentage of 45% as many as 18 people. In addition, almost all respondents had a bad quality of life (energy) of 82.5%, or as many as 33 people. While a small proportion of respondents had a good quality of life (energy) of 17.5%, namely 7 people.

Based on the mental health domain, most respondents had a good quality of life (mental health) of 57.5%, or as many as 23 people. In addition, almost half of the respondents had a bad quality of life (mental health), with a percentage of 42.5%, or as many as 17 people. In addition, most respondents had a bad quality of life (social function) of 72.5%, or as many as 29 people. While a small proportion of respondents had a good quality of

life (social function) of 27.5%, namely 11 people.

Based on the pain domain, most respondents had a bad quality of life (pain) of 67.5%, as many as 27 people. While almost half of the respondents had a good quality of life (pain) of 32.5%, namely 13 people, In addition, almost all of the respondents had a bad quality of life (general health) of 80%, namely 32 people. While a small proportion of respondents had a good quality of life (general health) of 20%, namely 8 people.

RESEARCH RESULT
Characteristics of Respondents at the DOTS-TB Polyclinic dr. Soedarso

Analysis of the characteristics of respondents based on age, almost half of the respondents were aged in the range of 56–65 years, namely 11 people. Research (Dotulong et al., 2015) states that productive patients are patients with an age range of 15 to 64 years. In this age category, it is easy to be infected with tuberculosis disease.

The immune system at the age of more than 55 years will decrease, so it is very easy to be infected with various types of diseases, including tuberculosis (Sikumbang et al., 2022). Health problems that occur in the elderly will cause difficulties in carrying out activities and fulfilling life needs, which will affect their quality of life in the elderly.

Based on the researcher's assumption, the elderly tend to be unaware of the treatment regimen and usually leave the decision-making process to those closest to them, which can lead to less than optimal treatment process and impact on their quality of life and life expectancy.

Based on gender, it was found that the majority of respondents were male, namely 25 people. The result was in accordance with research conducted by Sunarmi and Kurniawaty, (2022) which found that men experienced more tuberculosis disease compared to women.

Males are more susceptible to contracting diseases than females. This is due to men having heavier workloads, unhealthy lifestyles outside the home, such as smoking and drinking alcohol, a lack of rest, more social interaction, and exposure to pollution from the environment.

Based on the researcher's assumption, women tend to seek more information, report symptoms of disease, and consult for treatment because women tend to have more persistent behavior and are more interested in their own health status for the sake of improving their health status than men.

Analysis of the characteristics of respondents based on educational background, almost half of the respondents had a history of education, including high school and college graduates. This is in accordance with the research of Priambada et al., (2019) which found that tuberculosis patients in Kupang City had the highest distribution of educational history, which was high school graduates.

Research conducted by Abrori and Ahmad, (2018) showed that one of the factors that affected the quality of life of tuberculosis patients was education, because patients with higher education have an expanded cognitive ability to control their coping.

However, this research showed that the educational background levels of tuberculosis patients with a high degree of education were not necessarily able to have self-awareness in taking care of their disease compared to those with a less advanced education.

Based on marital status, the majority of respondents had marital status in the married category. The data was also supported by the research of Nurkumalasari et al., (2016), which revealed that the majority of marital status on tuberculosis patients in Ogan Ilir Regency was married with 88.9% of the total respondents. Married tuberculosis patients have a better self-regulation and a more adequate coping resource from their spouse's support. This can help patients to development an adaptive stressor coping.

In this research, different results were obtained. In general society, whether a patient is married, unmarried, or widowed does not indicate that the patient lives alone in a place of occupancy; it is possible that the patient might live in the same house with other relatives. Patients who live in the same house will be at risk of spreading to their relatives, so they also need a sputum test.

Based on the researcher's assumption, patients who are married and have a family are more sensitive when carrying out activities that require more time and energy, causing roles and performance to be disrupted. Married patients tend to have higher levels of work and family conflicts, potentially leading to stress. Stress that arises can also worsen physical and psychological health, affecting their quality of life.

Based on the respondents' employment status, the majority of respondents worked, namely 22 people. This is in accordance with the research of Sutriyawan et al., (2022), which showed that most of the respondents of tuberculosis patients in the Puskesmas Garuda region had employment status in the working category, namely 68.4%.

Work is an activity carried out to earn a living and fulfill socio-economic needs. In employment, the possibility of special exposure, the amount of risk. Based on the researcher's assumption, type of job of the patient can affect the level of income, which impacts the pattern of daily life and the fulfillment of life needs to support good health status, such as consumption of nutritious food, health maintenance, early diagnosis, limitations on quality drugs, and an adequate health care system.

Based on the length of treatment of respondents, the highest percentage is the history of treatment duration for ≤ 2 months and 3-6 months. The duration of tuberculosis treatment depends on the compliance and discipline of the patient while undergoing therapy (Suriya, 2018).

Based on the researcher's assumption, The treatment process that takes a long time can cause boredom and affect compliance with the consumption of anti-tuberculosis drugs. In addition, the length of tuberculosis treatment can be influenced by the detection of tuberculosis bacteria on a screening, so it is necessary to carry out the complete treatment program because tuberculosis bacteria can reactivate if there is a drug withdrawal, and the patient must repeat the treatment from the early phase. In the treatment of tuberculosis, patients often feel incompatible with the treatment, causing adverse side effects so that tuberculosis patients do not want to continue treatment.

Respondent's Quality of Life

The characteristics of quality of life in the physical function domain are that most patients have a bad quality of life, namely 30 people. Characteristics in the physical role domain are that most patients have a bad quality of life

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with 35 people. The characteristics of the emotional role domain are that most patients have a poor quality of life, as many as 22 people. Characteristics in the energy domain are that most of the patients have a bad quality of life with 33 people.

Characteristics in the mental health domain are that most sufferers have a good quality of life, namely 23 people. Characteristics in the social function domain are that most patients have a bad quality of life, as many as 29 people. Characteristics in the pain domain are that most of the patients have a bad quality of life, namely 27 people. In the characteristics of the general health domain, most patients have a bad quality of life, namely 32 people.

According to Nurwidia and Hadi, (2022), tuberculosis patients have a bad quality of life in the category obtained from the domains of physical function, emotional role, and physical role with a total percentage of 100% and bad general health of 84.2%. In Abrori and Ahmad (2018), it was found that the quality of tuberculosis patients has a bad category, especially in the physical role with 81.8%. Research by Jaber and Ibrahim (2019), also showed that overall tuberculosis patients at the beginning of treatment had a bad quality of life by observing the average of all domains that were below the norm-based scores of SF-36.

The analysis conducted by the researcher showed that from the SF-36 quality of life questionnaire that had been filled in by tuberculosis patients at TB-DOTS Poli dr. Soedarso Hospital Pontianak, there were seven (7) quality of life domains that had the highest number of quality of life characteristics in the bad category, namely the domain of physical function, physical role, emotional role, energy, social function, pain, and general health. One quality of life domain with the highest number of quality of life characteristics in the good category is the mental health domain.

In the physical function domain, tuberculosis patients generally feel limited in lifting heavy objects, doing exercise, climbing one ladder, walking more than 1.5 km, and walking through several alleys and one alley. A minority of patients experienced limitations in minor activities such as walking leisurely, lifting or carrying small items, climbing a few stairs, bending over, and bathing or wearing their own clothes. This is because many tuberculosis patients experience symptoms and side effects of OAT that can interfere with activities such as shortness of breath, cough (productive or non-productive), chest pain, joint pain, and abdominal pain, It is not uncommon for patients to experience flu syndrome (weakness, dizziness, fever, and headache) and hemoptysis.

According to Dar et al., (2019), the study concluded that the lowest score was found in the physical domain. Based on the researcher's assumption, it can also be seen that tuberculosis patients in the early stages of treatment experience difficulties adapting to the side effects of drugs and the symptoms they feel, as well as their self-confidence, because they suffer from chronic and infectious diseases. It is also common for patients to come using portable oxygenation support and walking supports such as wheelchairs.

In the physical role domain, patients with tuberculosis commonly experienced significant difficulties in daily activities and spent all of their time engaged in activities due to physical limitations. Based on the researcher's assumption, these

limitations prevented them from completing their work on time and from engaging in some activities. This is because the physical role is related to the disability experienced due to the decline in physical condition. A weak physical role will cause patients to lose the opportunity to self-expression due to physical disabilities. These restrictions will obstruct the achievement of physical well-being, which in turn will have an impact on the quality of life. The results of this study are in line with Nurwidia & Hadi (2022), which state that one of the aspects that can affect the quality of life of tuberculosis patients, in addition to the physical function domain, is the physical disability domain, with a total of 100%.

In the domain of the role of emotions, TB patients generally experience difficulties spending all the time doing work or activities and are not careful in doing work or activities as usual due to emotional problems experienced. This is because TB patients in the last four weeks have experienced anxiety, sadness, or depression, which causes TB patients to be unable to do work or activities as usual.

Based on the researcher's assumption, the emotional distress experienced by TB patients is a consequence of the stimulus regulation stage of emotional distress due to a disease diagnosis. This can manifest as anger, anxiety and self-isolation. It is evident that TB patients require coping support in order to control their emotional stability, as emotional instability can lead to a lack of psychological well-being, which in turn affects a person's quality of life. The research by Salehitali et al., (2019) indicates that tuberculosis and its treatment have an impact on the mental and emotional quality of life of patients.

In the domain of energy, tuberculosis patients exhibit a bad quality of life, as indicated by the majority of patients reporting a lack of enthusiasm and energy, feelings of boredom, and fatigue. These findings are corroborated by research conducted by Thedthong et al., (2021) which revealed that over three-quarters of respondents experienced fatigue, with the majority reporting a moderate level of fatigue.

Based on the researcher's assumption, this can be attributed to prolonged treatment regimens and complex treatment protocols, which may induce feelings of boredom and helplessness. Furthermore, tuberculosis patients frequently experience fatigue due to systemic symptoms such as persistent cough, pain, shortness of breath, and sleep disturbances, which impede their ability to perform activities, sustain their survival, and recover. This, in turn, results in a decline in their productive level and quality of life.

In the domain of mental health, patients with tuberculosis tend to have a good quality of life. This is because not all tuberculosis patients experience severe mental health problems, such as feelings of hopelessness and sadness, distress, and depression. Some patients report feeling calm, peaceful, and cheerful in their daily lives. This research data is supported by Athiutama et al., (2022), who stated that patients with pulmonary tuberculosis at the Sumatra Province Special Lung Hospital had a good mental domain quality of life (95%).

According to the researcher's assumption, this is supported by the patient's positive thinking and enthusiasm to recover from his illness. In addition, patients were motivated to carry out activities by their families. This is evidenced by the fact that the highest percentage

of answers to the question 'I believe that tuberculosis can be cured' is always with 50% as many as 20 people. The highest percentage of answers to the question 'My family encourages me to carry out activities' was always with 52.5% as many as 21 people.

In the social functioning domain, the quality of life of tuberculosis patients has a bad category, indicated by patients experiencing impaired social activities as a result of physical health problems or emotional problems. In a study by Nurlaela et al., (2024), it was found that tuberculosis patients often experience a decrease in the quality of life in the form of social aspects.

Based on the researcher's assumption, one of the factors that can cause decreased social function in patients is significant interference from social life, including negative stigma and discrimination. If the patient's social activity is reduced, the patient's meaning of life and self-esteem will decrease, which can affect their quality of life.

In the domain of pain, patients with tuberculosis tend to have a bad quality of life, as indicated by the majority of patients reporting moderate pain on the pain scale and experiencing pain that interferes with their daily work over the past four weeks. The findings of this research are supported by those of Rachmawati, (2019), which indicate that patients with tuberculosis experience the biggest problem in the pain/discomfort dimension, with a quality of life score of 57.1%.

According to researchers, Patients with tuberculosis typically experience pain in muscles and joints, the abdomen, bones, and the thorax. The pain experienced by tuberculosis patients is the result of a complex interaction between the disease itself and the various side effects of treatment. The presence of pain will disrupt the patient's activities, thereby disrupting one of the patient's basic needs, which cannot be fulfilled optimally.

In the general health domain, tuberculosis patients have a bad quality of life, indicated by most patients feeling that they are a little easy to suffer from illness, not feeling as healthy as other people. In a study by Aggarwal, (2019) stated that tuberculosis patients generally have a low quality of life and a higher risk of subindromal depression and recurrent short-term depression.

According to researchers, this can occur because tuberculosis patients who undergo treatment tend to have limitations on their physical condition, because the symptoms felt are still quite severe so that patients experience limited roles in daily life. Non-compliance with the treatment process can affect their quality of life as their physical condition changes for the worse.

CONCLUSIONS

Most of the respondents were in the late elderly age group with an age range of 56–65 years, most of them were male, and most of them had an education level with high school and college graduates. Most of the respondents had a marital status in the married category and had a job, and most of the patients had a history of treatment duration for ≤ 2 months and 3-6 months.

In general, patients *at the DOTS-TB Polyclinic dr. Soedarso Hospital* the have a bad quality of life in the domains of physical function, physical role, emotional role, energy, social function, pain, and general health. However, in the mental health domain, most

respondents have a good quality of life.

SUGGESTION

The results of this study are expected to provide benefits for dr. Soedarso hospital and be used as a reference for information and insight, particularly for TB-DOTS patients regarding quality of life improvement. Furthermore, the results are expected to provide additional information and insight for students regarding the factors that can affect the quality of life of TB patients. This will enable the generation of inspirational ideas that are useful for improving the health status of TB patients. It is hoped that future researchers will modify and develop this study so that the information provided can be broader and develop other factors that may affect quality of life.

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