



Healthcare-Seeking Behavior among Tuberculosis Patients during the Covid-19 Pandemic in Padang City

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ABSTRACT

Pulmonary TB has symptoms similar to covid-19 and also the easy way of spreading causes people to be reluctant to go to health services for fear of contracting or being diagnosed with covid-19. This has caused the number of case discoveries and the success of TB treatment to decrease. This study aims to determine the behavioral picture of health care search in pulmonary TB patients during the COVID-19 pandemic. This study is a cross-sectional study conducted on 100 pulmonary TB patients in Padang City aged more than 17 years, who are or have completed treatment at the Puskesmas Anak Air and Lubuk Buaya in January-June 2022 which were randomly selected. Data were collected through a modified questionnaire of healthcare-seeking behavior on pulmonary TB patients. The results showed that most respondents first visited public health services (51%), especially Puskesmas (52.9%), because they believed that pulmonary TB could be cured (62.7) and wanted to get health services from health workers (56.9%). However, there are still people who do not visit health services for the first time (49%) for fear of being diagnosed (55.1%) or contracting covid-19 (46.9%). For this reason, as nurses, we must continue to actively educate the public so that public knowledge about pulmonary TB and covid-19 increases and there is no negative perception of disease or anxiety in the community.

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ABSTRAK

TB paru mempunyai gejala yang mirip dengan covid-19 dan juga cara penyebaran yang mudah menyebabkan orang enggan ke pelayanan kesehatan karena takut tertular maupun terdiagnosis covid-19. Hal ini menyebabkan angka penemuan kasus dan keberhasilan pengobatan TB menurun. Untuk itu, penelitian ini bertujuan untuk mengetahui gambaran perilaku pencarian pelayanan kesehatan pada pasien TB paru selama pandemi covid-19. Penelitian ini merupakan studi cross-sectional yang dilakukan pada 100 pasien TB paru di Kota Padang berusia lebih dari 17 tahun, yang sedang atau telah menyelesaikan pengobatan di Puskesmas Anak Air dan Lubuk Buaya pada Januari-Juni 2022 yang dipilih secara acak. Data dikumpulkan melalui kuisioner perilaku pencarian pelayanan kesehatan pada pasien TB paru yang telah dimodifikasi. Hasil penelitian menunjukkan sebagian besar responden pertama kali mengunjungi pelayanan kesehatan umum (51%), khususnya Puskesmas (52,9%), karena mereka percaya bahwa TB paru dapat disembuhkan (62,7) dan ingin mendapatkan layanan kesehatan dari tenaga kesehatan (56,9%). Namun, masih ada masyarakat yang tidak mengunjungi layanan kesehatan untuk pertama kalinya (49%) karena takut terdiagnosis (55,1%) atau tertular covid-19 (46,9%). Untuk itu, sebagai perawat, kita harus terus aktif memberikan edukasi kepada masyarakat agar pengetahuan masyarakat tentang TB paru dan covid-19 meningkat serta tidak ada persepsi negatif terhadap penyakit atau kecemasan di masyarakat.

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INTRODUCTION

Pulmonary tuberculosis (TB) is one of the most common types of infectious disease in the world caused by *Mycobacterium Tuberculosis*. In 2020 the number of TB cases in Indonesia reached 845,000 cases with an estimated death rate of 12,649 deaths (TB Indonesia, 2021). The unresolved TB problem both in the world and in Indonesia is further exacerbated by the Covid-19 pandemic that has hit the world. The number of COVID-19 cases until 2021 has not shown a significant decline. Based on available data, as of May 4, 2021, there were 644,685 new cases, a total of 153,187,889 cases of COVID-19 with a total death of 3,209,109 people in the world (WHO, 2021c). In Indonesia alone, there were 1,686,373 positive cases and 46,137 deaths as of May 4, 2021 (Komite Penanganan Covid-19 dan Pemulihan Ekonomi Nasional, 2021). Meanwhile, in Sumatra alone, the total number of positive cases until May 4 2021 reached 37,845 people and as many as 824 people died (Pemerintah Provinsi Sumbar, 2020).

The COVID-19 pandemic had an impact on all aspects of life, including the handling of TB cases around the world, both case detection and treatment of TB cases. Based on the 2020 annual TB report, there was a 25–50% decrease in TB case finding during the 3-months of the COVID-19 pandemic. In addition, some countries with a high TB burden will have a mortality rate of between 200,000 and 400,000 TB deaths in 2020, bringing the total to around 1.6–1.8 million. An increase of 200,000 will bring the world back to the level of 2015 and an increase of 400,000 to the level of 2012 which means that the handling of TB cases has experienced a setback during the covid-19 pandemic (WHO, 2020b).

The main key to having a successful treatment of TB cases is early detection and complete treatment. If TB cases are late in diagnosing and late in getting treatment, this can increase the possibility of transmitting bacteria to people around people with pulmonary TB, worsening the disease, and burdening the family (Cheng, 2012). Individuals with TB have an important role in case detection, namely by visiting health services after experiencing symptoms of TB which is commonly referred to as health-seeking behavior (Oberoi, S., Chaudhary, N., Patnaik, S., and Sing, 2016). Health-seeking behavior in patients with pulmonary TB is important to increase case-finding rates and provide timely treatment.

However, with the Covid-19 pandemic, many things have changed in the order of life. This pandemic has added to the weight of health problems, including TB. Covid has symptoms such as cough, fever, and shortness of breath similar to TB. However, TB has a longer incubation period with slower disease onset (WHO, 2020a). This raises concerns in the community where people who have signs of symptoms such as fever and cough are afraid to check themselves to health services for fear of being infected or afraid of being diagnosed with COVID-19 (Kompas, 2020). Of course, this can be an inhibiting factor in health-seeking behavior. Therefore, researchers are interested in conducting a study with the title "Health Seeking Behavior among Tuberculosis Patients during the Covid-19 Pandemic in Padang City".

METHOD

This study is a cross-sectional study conducted on pulmonary TB patients in Padang City. The study was conducted on 100 participants who were calculated using

the Slovin formula with inclusion criteria such as pulmonary TB patients aged more than 17 years, undergoing treatment, or completing treatment at the Primary Health Centre on January-June 2022. The study was conducted at the Lubuk Buaya and Anak Air Health Centers which were selected randomly.

The data collection tool used in this study was a questionnaire modified based on the guidelines of previous research about health-seeking behavior among tuberculosis patients (Hidayat, Setiawati, and Soeroto 2017; Ukwaja et al. 2013; Yimer et al. 2009). Validity and reliability test were conducted. The result of the validity and reliability test showed that the instrument is valid and reliable as a measure of health-seeking behavior among tuberculosis patients, with 9 questions of symptoms and duration for seeking healthcare service (R table $> 0,312$); Cronbach's $\alpha = 0,830$, and the first facility visited and the reason for choosing that facility (content validity with expert). Data were analyzed using data processing analysis software by performing univariate analysis.

RESULTS AND DISCUSSION

The results showed that pulmonary TB mostly affects productive age ($36.02 \pm 12,587$ years) and most of them are male (75%) (Table 1). This result is similar to the results of a previous study in Nigeria which had a mean age of 35.68 ± 14.05 years and 68.1 of them were male (Kolapo & Famuyiwa, 2018). In both of these studies, the participants used is someone who comes to health services to get treatment for TB. Based on WHO (2021a) reports, pulmonary TB is most common in productive age. This can be due to the many risk factors for pulmonary TB of productive age such as alcohol consumption, smoking, and HIV/AIDS infection (WHO, 2021a).

Most participants have completed secondary education (62%), are married (62%), and work in the informal sector (96%) like daily laborer, entrepreneur, privat employee and salesman (Table 1). The results of this study are similar to previous studies in Bengkulu Indonesia, that most of the participants were married (74.6%), 46.5% graduated from high school, 87.3% worked in the informal sector such as trade, labor, household workers, farmers/ fisherman. This similarity can happen because the characteristics of the participants have in common which are TB patients who seek treatment at primary health services (Wulan, 2019).

Most of the participants have income less than Padang City's Minimum Regional Wage (83%) (Table 1). More than 95% of cases and deaths from pulmonary TB occur in developing countries (WHO, 2021b). Indirectly, economic factors are closely related to the incidence of pulmonary TB for several reasons, including people with low economics will live and work in conditions that are poorly ventilated and crowded, which provides ideal conditions for TB bacteria to spread. A person with a low economy is also at great risk of suffering from malnutrition which reduces resistance to TB. In addition, the limited economic conditions result in a lack of limited access to health services (TB Alert Organization n.d.).

The four symptoms most felt by participants were cough (89%), fever (80%), weight loss (85%), and night sweats (74%) (Table 2).

The four symptoms most felt by participants were cough, fever, weight loss, and night sweats. These symptoms are common symptoms felt by pulmonary TB patients in general.

Previous studies in Nigeria also showed similar results, namely that patients generally had symptoms of cough, weight loss, fever, and night sweats (Ukwaja et al., 2013). Everyone has a different time interval when they feel symptoms to seek health services. Based on the results of this study, the time required for participants to seek TB health services is on average about 4 weeks (1-8 weeks). Another study showed that 14 days is the recommended time to go to the health center but for delays in treatment can be said to be significant if it is more than 30 days (Osei, Akweongo, and Binka, 2015).

Table 1
Socio-Demographic of Study (n=100)

Characteristics	Mean	SD
Age	36,02	12,587
	N	%
Gender		
a. Male	75	75
b. Female	25	25
Education		
a. No School	1	1
b. Primary School	12	12
c. Junior High School	15	15
d. Senior High School	62	62
e. College	10	10
Marital Status		
a. Not married yet	36	36
b. Married	62	62
c. Widow	2	2
Occupation		
a. Government employees	3	3
b. Police/army	1	1
c. Private employees	9	9
d. Salesman	9	9
e. Day Laborer	35	35
f. Entrepreneur	43	43
Penghasilan		
a. < RMW* Padang City	83	83
b. ≥ RMW Padang City	17	17

Table 2
Symptoms Reported by Participants With Pulmonary Tuberculosis (n=100)

Symptoms	Symptom
	N (%)
Cough	89 (89)
Weight Loss	85 (85)
Fever	80 (80)
Night Sweat	74 (74)
Dyspnea	64 (64)
Body Weakness	64 (64)
Chest Pain	57 (57)
Hemoptysis	45 (45)
Other	8 (8%)

* Most participants have at least 2 symptoms

When experiencing these symptoms, everyone has a different response. Some seek health care immediately after symptoms appear, some seek care after disease conditions and symptoms, or even seek care only when they have severe symptoms. In this study, participants sought health care when mild symptoms first appeared (38%) and the rest

seek health services when there are signs of disease and severe symptoms appear (Table 3). This figure is lower than the results of research that has been carried out in Bandung City Indonesia with the percentage who seek health facilities when they have mild symptoms (54%) (Hidayat et al., 2017). This could be because this research was conducted after the Covid-19 pandemic. Several studies have stated that the impact of the Covid-19 pandemic is a decrease in visits to health facilities for fear of contracting Covid-19 or closing health services, so that people with mild symptoms prefer to treat their illness at home (Yulia et al., 2021).

Table 3
Healthcare-Seeking Behavior Factors

Healthcare-seeking behavior factors	N	%
Initial conditions for seeking health		
a. Early after mild symptoms appear	38	38
b. Disease conditions and symptoms	29	29
c. Severe condition	28	28
d. Other	5	5
First health facility visited		
a. Non public health facilities	49	49
b. Public health facility	51	51
Total	100	100
First health facility visited		
	f	%
Non public health facilities		
a. Traditional Medicine	47	95.9
b. Shaman	2	4.1
Total	49	100
Public health facilities		
a. Primary health care	27	52.9
b. Hospital	6	11.8
c. Clinic	17	33.3
d. Private health care	1	2
Total	51	100

Participants who choose public and non-public facilities have almost the same percentage, namely 51% choosing public facilities while 49% choosing non-public health facilities. Of the 49 participants who used non-public health facilities, 95.9% visited traditional medicine for the first time. In addition, of the 51 people who chose public health facilities, most visited the primary health care when they first received treatment (Table 3). The use of traditional medicine in Indonesia is still quite high. Based on previous studies it was said that 24.4% of participants had used traditional medicine and/or traditional medicine in the past four weeks, and 32.9% had used complementary treatment in the last four weeks this could be associated with an unsanitary condition, older age, domiciled in an urban area, or having a chronic condition (Pengpid & Peltzer, 2018). This is similar to the characteristics of participants in this study.

Of the 51 participants who visited a public health facility for the first time, the reason they choose a public health facility was because they believed that TB could be cured (62.7%) and because they wanted to get professional care (56.9%) (Table 4). This success is inseparable from the role of government who was very intense in controlling TB through the program Directly Observed Treatment Shortcourse (DOTS). Based on the health profile of Padang City 2021, there are 1,494 cases with a confirmed treatment success rate from complete treatment (90.2%), this figure is higher than the achievement of the previous year (Dinas Kesehatan Kota Padang, 2021). However, the DOTS program is still

experiencing shortcomings such as the lack of health workers responsible for the implementation of the program and the existence of multiple tasks due to the limited health human resources owned, planning has not been clearly illustrated, and there are still Puskesmas that are able to achieve the targets set by the Government, which this should be the government's concern to improve the achievement of TB multiplication (Sanjaya, 2021).

Table 4
Reasons for Choosing Public Health Services (n=51)

Reason for Choosing Public Health Services	N	%
Believe that TB can be cured	32	62.7
Suggestions from cadres / neighbors	17	33.3
Close distance to public facilities	16	31.4
Have health insurance	7	13.7
TB is considered contagious	8	15.7
Want to get professional treatment	29	56.9
Referred by other health services	6	11.8

*Each respondent may have more than one reason

Of the 49 participants who visited non-public health facilities for the first time, the reason for choosing non-public health facilities was because they were afraid of being diagnosed with Covid-19 (55.1%) followed by fear of contracting Covid-19 (46.9%) (Table 5).

Table 5
Reasons for Choosing Non Public Health Services (n=49)

Reason for Choosing Non Public Health Services	N	%
Symptoms are not felt	17	34.7
Distance to public facilities	3	6.1
Long waiting time	3	6.1
Limited facilities	8	16.3
Don't trust public facilities	4	8.2
More trust in traditional medicine	17	34.7
Feeling embarrassed if you have TB	24	49
Fear of contracting covid-19	23	46.9
Fear of being diagnosed with covid-19	27	55.1
Lack of family support	15	30.6
Work pressure (unable to get a work permit)	1	2
Less medical expenses	14	28.6

*Each respondent may have more than one reason

The covid-19 pandemic affects all aspects of life, especially health. Characteristics of diseases that are easily contagious have an impact on restrictions on social, economic, educational and other activities which result in increased public anxiety (Megatsari et al., 2020). It is similar to what was conveyed by Yulia et al. (2021), impact of the Covid-19 pandemic is a decrease in visits to health facilities for fear of contracting Covid-19. Based on an interview with one of the nurses at the Padang City Health Center, during the Covid-19 pandemic, people were reluctant to check themselves at the Primary Health Care because they were afraid of contracting Covid, because the Primary Health Care was one of the places to provide Covid-19 services.

The results of this study also showed that participants were reluctant to go to health services due to fear of being diagnosed with Covid-19 (55.1%) (Table 5). When Covid-19

cases increased in 2020, news on electronic media and social media reported a lot of this case. Including news about forced pick-up for someone who is confirmed positive for Covid-19 which spreads in the media (Wiryo, 2020). Of course, this increases anxiety and fear for the community. Moreover, there are many stories of experiences of recovered covid-19 patients who tell that in the isolation room of the Hospital, it is like feeling in prison, feeling lonely, inattentive, and away from family. Of course, this adds to the mental burden for people with covid-19 (Hadju, 2020).

LIMITATION OF THE STUDY

Limitations in this study with primary data conditions using interviews retrospective, so the data is highly dependent on the respondent's memory or allows the existence of recall bias, even though it has been minimized by researchers with the criteria of the research subject.

CONCLUSIONS AND SUGGESTIONS

The results of this study showed that most of the participants were of productive age, male gender, married, worked in the informal sector and earned below the Padang City' Regional Minimum Wage. TB symptoms that are widely felt are cough, fever, weight loss, and night sweats. Most of the respondents first visited public health services, especially Primary Health Care, because they believed that pulmonary TB could be cured and wanted to get health services from health workers. However, there are still people who do not visit public health services for the first time for fear of being diagnosed or contracting covid-19. For this reason, as a nurse, we must continue to actively provide education to the community so that community knowledge about pulmonary TB and covid-19 increases and there is no negative perception of the disease or anxiety in the community.

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ETHICAL CONSIDERATIONS

This research has passed the ethical test of the Poltekkes Kemenkes Jambi research ethics committee with the number: LB.02.06/2/16/2022.

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Conflict of Interest Statement

There was no conflict of interest in the study

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