



## Data Article

# Survey data of multidrug-resistant tuberculosis, Tuberculosis patients characteristics and stress resilience during COVID-19 pandemic in West Sumatera Province, Indonesia



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## ABSTRACT

This set of data presents a survey data describing multidrug-resistant tuberculosis, tuberculosis patients characteristics and stress resilience during COVID-19 pandemic in West Sumatera Province, Indonesia. The data were gathered from multidrug-resistant tuberculosis, tuberculosis patients through a survey distributed by an online questionnaire, assessing patients characteristics (age, sex, level of education, working status, history of close contact to patients with multidrug resistant tuberculosis and tuberculosis, smoking, alco-

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hol consumption, cavitary pulmonary, diabetes mellitus, nutritional status and tuberculosis outside the lung) and stress resilience (3 items), from 15th July until 7th August 2020. The samples were collected 73 multidrug resistant tuberculosis patients and 219 tuberculosis patients in West Sumatera Province, Indonesia who were willing to fill an online questionnaire. SPSS version 23.0 was used to analyzed the data by descriptive and inferential statistics. The data will help to identify mental health problems and potentially as a warning sign that can support for health education interventions among multidrug-resistant tuberculosis and tuberculosis patients during COVID-19 pandemic.

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## Specifications Table

Subject	Public health
Specific subject area	Health education, health promotion
Type of data	Primary data Tables
How data were acquired	Data was collected using an online survey platform (google forms). The questionnaire is provided as a supplementary file
Data format	Raw Analyzed Filtered (descriptive and inferential statistics)
Parameters for data collection	The multidrug-resistant tuberculosis and tuberculosis patients collected through medical records review at Dr. M. Djamil General Hospital Padang, Achmad Muchtar Hospital Bukittinggi and Lubuk Alung Hospital Pariaman. The survey data was conducted from 73 multidrug resistant tuberculosis patients and 219 tuberculosis patients in West Sumatera, Indonesia to assessing patients characteristics (age, sex, level of education, working status, history of close contact to patients with multidrug resistant tuberculosis and tuberculosis, smoking, alcohol consumption, cavitary pulmonary, diabetes mellitus, nutritional status and tuberculosis outside the lung) and stress resilience.
Description of data collection	The survey data was conducted through an online questionnaire, which was delivered to multidrug-resistant tuberculosis, tuberculosis patients in West Sumatera, Indonesia with convenience sampling technique.
Data source location	Region: Southeast Asia Country: Indonesia
Data accessibility	The data are available in Mendeley Data

## Value of the Data

- These data are useful because resilience is important to cope with stress and vital to stay in balance especially among multidrug-resistant tuberculosis and tuberculosis patients during COVID-19 pandemic. This is survey that involved hundreds of respondents that describe patients characteristics (age, sex, level of education, working status, history of close contact to patients with multidrug-resistant tuberculosis and tuberculosis, smoking, alcohol consumption, cavitary pulmonary, diabetes mellitus, nutritional status and tuberculosis outside the lung) and stress resilience among multidrug-resistant tuberculosis and tuberculosis patients in Indonesia.
- All researchers in epidemiology, psychiatry and neuropsychology can benefit from these data because by using this data to recommend for improved concern on mental health problems during the COVID-19 pandemic, but also attention the priority need of increasing concern on resilience and on actions to gain it as resilience is fundamental to cope with the stress

enforce by the COVID-19 pandemic at the personal and population level among multidrug-resistant tuberculosis and tuberculosis patients and can advocate for health education and promotion interventions in their country.

- The data will be valuable to researchers who want to compare with similar studies on multidrug-resistant tuberculosis, tuberculosis patients characteristics and stress resilience during COVID-19 pandemic from other countries or developing to systematic review and also meta-analysis in the future
- These data could potentially make an impact on population, involving other variables that effect of resilience during COVID-19 outbreak among multidrug-resistant tuberculosis and tuberculosis patients to prevent the stress and mental health problems during COVID-19 pandemic.

## 1. Data Description

The set of data presents an insightful evidence based on survey data on multidrug-resistant tuberculosis, tuberculosis patients characteristics and stress resilience during COVID-19 pandemic in West Sumatera Province, Indonesia. The multidrug-resistant tuberculosis and tuberculosis patients gathered through medical records review at Dr. M. Djamil General Hospital Padang, Achmad Muchtar Hospital Bukittinggi and Lubuk Alung Hospital Pariaman. The survey data was conducted from 73 multidrug resistant tuberculosis patients and 219 tuberculosis patients in West Sumatera, Indonesia to explaining multidrug-resistant tuberculosis, tuberculosis patients characteristics and stress resilience during COVID-19 pandemic. The data include two major group of variable: a) patients characteristics, including age, sex, level of education, working status, history of close contact to patients with multidrug resistant tuberculosis and tuberculosis, smoking, alcohol consumption, cavitary pulmonary, diabetes mellitus, nutritional status and tuberculosis outside the lung; b) three items for COVID-19 stress resilience including information about hard time making it through COVID-19 stressful, take a long time to recover from COVID-19 stressful and hard to snap back when something bad happens. The instrument is provided as a supplementary file. Patients characteristics are performed in [Table 1](#).

[Table 1](#) showed that of the known patient characteristics for multidrug-resistant tuberculosis and tuberculosis patients, cavitary pulmonary had the highest odds ratio (OR = 113.54 [95% CI 15.02–858.54]), followed by TB outside the lung (OR = 38,68 [95% CI 4.89–305.43]), nutritional status (OR = 10.92 [95% CI 5.79–20.56]), alcohol consumption (OR = 6.45 [95% CI 1.57–26.48]), working status (OR = 4.08 [95% CI 2.33–7.17]), level of education (OR = 2.79 [95% CI 1.61–4.85]), history of close contact to patients with MDR-TB and TB (OR = 2.35 [95% CI 1.30–4.22]) and diabetes mellitus (OR = 2.12 [95% CI 1.15–3.91]). While sex, age and smoking are not associated with multidrug-resistant tuberculosis and tuberculosis patients. The detailed measurement of responses on stress resilience during COVID-19 pandemic among multidrug-resistant tuberculosis and tuberculosis patients in West Sumatera Province, Indonesia in [Table 2](#). Association between multidrug-resistant tuberculosis and tuberculosis patients characteristics with stress resilience during COVID-19 pandemic in West Sumatera Province, Indonesia are described in [Table 3](#).

## 2. Experimental Design, Materials and Methods

This survey data was conducted using a cross sectional survey design to determine multidrug-resistant tuberculosis, tuberculosis patients characteristics and stress resilience during COVID-19 pandemic in West Sumatera Province, Indonesia. The dataset in this survey were 73 multidrug resistant tuberculosis patients and 219 tuberculosis patients collected through medical records review at Dr. M. Djamil General Hospital Padang, Achmad Muchtar Hospital Bukittinggi and Lubuk Alung Hospital Pariaman, by the written online informed consent. The data responses collected between 15th July until 7th August 2020. The main researchers selected to

**Table 1**  
Multidrug-resistant tuberculosis and tuberculosis patients characteristics.

Characteristics	Groups		p-value	OR (95% CI)
	MDR-TB (f%) (n = 73)	TB (f%) (n = 219)		
<b>Sex</b>				
Male	47 (64.4)	149 (68.0)	0.666	0.85 (0.49–1.48)
Female	26 (35.6)	70 (32.0)		Ref
<b>Age (years)</b>				
≥ 45	51 (69.9)	137 (62.6)	0.323	1.39 (0.79–2.45)
< 45	22 (30.1)	82 (37.4)		Ref
<b>Level of education</b>				
Low	47 (64.4)	86 (39.3)	<0.001*	2.79 (1.61–4.85)
High	26 (35.6)	133 (60.7)		Ref
<b>Working status</b>				
Work	49 (67.1)	73 (33.3)	<0.001*	4.08 (2.33–7.17)
Not work	24 (32.9)	146 (66.7)		Ref
<b>History of close contact to patients with MDR-TB and TB</b>				
Yes	54 (74.0)	120 (54.8)	0.006*	2.35 (1.30–4.22)
No	19 (26.0)	99 (45.2)		Ref
<b>Smoking</b>				
Yes	35 (47.9)	91 (41.6)	0.413	1.29 (0.76–2.21)
No	38 (52.1)	128 (58.4)		Ref
<b>Alcohol consumption</b>				
Yes	6 (8.2)	3 (1.4)	0.009*	6.45 (1.57–26.48)
No	67 (91.8)	216 (98.6)		Ref
<b>Cavitary pulmonary</b>				
Yes	25 (34.2)	1 (0.5)	<0.001*	113.54 (15.02–858.54)
No	48 (65.8)	218 (99.5)		Ref
<b>Diabetes mellitus</b>				
Yes	22 (30.1)	37 (16.9)	0.023*	2.12 (1.15–3.91)
No	51 (69.9)	182 (83.1)		Ref
<b>Nutritional status</b>				
Underweight	41 (56.2)	23 (10.5)	<0.001*	10.92 (5.79–20.56)
Normal	32 (43.8)	196 (89.5)		Ref
<b>TB outside the lung</b>				
Yes	11 (15.1)	1 (0.5)	<0.001*	38.68 (4.89–305.43)
No	62 (84.9)	218 (99.5)		Ref

**Abbreviation:** CI, Confidence Interval; MDR TB, Multidrug-Resistant Tuberculosis; TB, Tuberculosis; OR, Odds Ratio; \*,statistically significant.

**Table 2**  
Responses to stress resilience during COVID-19 pandemic among multidrug-resistant tuberculosis and tuberculosis patients in West Sumatera Province, Indonesia.

Stress resilience during COVID-19 pandemic	Answer	MDR-TB (n-73) f (%)	TB (n = 219) f(%)
I have a hard time making it through stressful during events	Strongly disagree	3 (4.1)	7 (3.2)
	Disagree	3 (4.1)	4 (1.8)
	Neutral	25 (34.2)	36 (16.4)
	Agree	25 (34.2)	88 (40.2)
	Strongly agree	17 (23.3)	84 (38.4)
It does not take me long to recover from a stressful event	Strongly disagree	0	1 (0.5)
	Disagree	3 (4.1)	14 (6.4)
	Neutral	30 (41.1)	45 (20.5)
	Agree	31 (42.5)	111 (50.7)
	Strongly agree	9 (12.3)	48 (21.9)
It is hard for me to snap back when something bad happens	Strongly disagree	0	0
	Disagree	11 (15.1)	32 (14.6)
	Neutral	29 (39.7)	48 (21.9)
	Agree	19 (26.0)	69 (31.5)
	Strongly agree	14 (19.2)	70 (32.0)

**Table 3**

Association between multidrug-resistant tuberculosis and tuberculosis patients characteristics with stress resilience during COVID-19 pandemic in West Sumatera Province, Indonesia.

Characteristics	Stress Resilience					
	MDR-TB (n = 73)			TB (n = 219)		
	Low (f/%) (n = 36)	High (f/%) (n = 37)	p-value	Low (f/%) (n = 153)	High (f/%) (n = 66)	p-value
<b>Sex</b>			0.518			0.147
Male	25 (69.4)	22 (59.5)		99 (64.7)	50 (75.8)	
Female	11 (30.6)	15 (40.5)		54 (35.3)	16 (24.2)	
<b>Age (years)</b>			0.026*			0.811
≥ 45	30 (83.3)	21 (56.8)		97 (63.4)	40 (60.6)	
< 45	6 (16.7)	16 (43.2)		56 (36.6)	26 (39.4)	
<b>Level of education</b>			0.035*			0.466
Low	28 (77.8)	19 (51.4)		63 (41.2)	23 (34.8)	
High	8 (22.2)	18 (48.6)		90 (58.8)	43 (65.2)	
<b>Working status</b>			0.031*			0.160
Work	29 (80.6)	20 (54.1)		56 (36.6)	17 (25.8)	
Not work	7 (19.4)	17 (45.9)		97 (63.4)	49 (74.2)	
<b>History of close contact to patients with MDR-TB and TB</b>			1.000			0.490
Yes	27 (75.0)	27 (73.0)		81 (52.9)	39 (59.1)	
No	9 (25.0)	10 (27.0)		72 (47.1)	27 (40.9)	
<b>Smoking</b>			0.561			0.982
Yes	19 (52.8)	16 (43.2)		63 (41.2)	28 (42.4)	
No	17 (47.2)	21 (56.8)		90 (58.8)	38 (57.6)	
<b>Alcohol consumption</b>			0.432			0.556
Yes	4 (11.1)	2 (5.4)		3 (2.0)	0	
No	32 (88.9)	35 (94.6)		150 (98.0)	66 (100.0)	
<b>Cavitary pulmonary</b>			0.367			0.301
Yes	10 (27.8)	15 (40.5)		0	1 (1.5)	
No	26 (72.2)	22 (59.5)		153 (100.0)	65 (98.5)	
<b>Diabetes mellitus</b>			0.859			0.356
Yes	10 (27.8)	12 (32.4)		23 (15.0)	14 (21.2)	
No	26 (72.2)	25 (67.6)		130 (85.0)	52 (78.8)	
<b>Nutritional status</b>			0.003*			0.087
Underweight	27 (75.0)	14 (37.8)		12 (7.8)	11 (16.7)	
Normal	9 (25.0)	23 (62.2)		141 (92.2)	55 (83.3)	
<b>TB outside the lung</b>			0.545			1.000
Yes	4 (11.1)	7 (18.9)		1 (0.7)	0	
No	32 (88.9)	30 (81.1)		152 (99.3)	66 (100.0)	

Note: \*, statistically significant.

use WhatsApp Messenger for enrolling potential participants. A instrument was created and executed and made using google forms and link generated was shared on Whatsapp messenger after main researchers got the contact number of participants from medical records review and permitted by doctors or team members who treated patients at Dr. M. Djamil General Hospital Padang, Achmad Muchtar Hospital Bukittinggi and Lubuk Alung Hospital Pariaman. The sampling technique in this survey is convenience sampling [1,2]. The inclusion criteria were multidrug resistant tuberculosis and tuberculosis patients with clinical examination and GeneXpert showed positive multidrug resistant tuberculosis and tuberculosis based on medical records review and never infected COVID-19 [3].

The survey items of stress resilience during COVID-19 pandemic were adapted used previous studies [4]. The questionnaire translating to Indonesian.

The stress resilience during COVID-19 pandemic analyzed using frequency and percentage. The association between multidrug-resistant tuberculosis and tuberculosis patients characteristics with stress resilience during COVID-19 pandemic in West Sumatera Province, Indonesia analyzed using chi-square test. P value <0.05 was stated as statistically significant.

## Ethics Statement

This study passed the ethical review by the ethics committee of the Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia. The survey data was conducted according to the Declaration of Helsinki. The online questionnaire was anonymous and the data were coded. On the main page, a summary of the aim of the data collection and an online letter of consent were presented to the respondents. Access to the questionnaire was only given if the respondent consented to participate.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships which have, or could be perceived to have, influenced the work reported in this article.

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## Supplementary Materials

Supplementary material associated with this article can be found, in the online version.

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