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# Demographic Characteristics and the Performance of Supervisors of Swallowing Drugs in Parepare, Indonesia

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#### **ABSTRACT**

Pulmonary tuberculosis is a disease of global concern. This research was carried out in the work area of the City Health Center in Parepare, South Sulawesi, Indonesia. The purpose of this study was to analyze the influence of characteristics of supervisors swallowing drugs participants including demographic characteristics (age, sex, education, socio-economic), knowledge, attitudes and practices; on the performance of "supervisors swallowing drugs" in an effort to build adherence to patients with pulmonary tuberculosis in the treatment process, using a cross sectional design. The population of this study were all "drug swallowing supervisors" in the Parepare City Health Center Work Area, South Sulawesi, Indonesia. The sample in this study were 88 people selected by purposive sampling technique. Data on the characteristics of respondents, knowledge, attitude and practice were collected through questionnaires. After being collected, the data were analyzed by using logistic regression test. Based on the results of the study it was concluded that the performance of supervisors swallowing drugs related to work status.

Keywords: Tuberculosis, Supervisors swallowing drugs

## INTRODUCTION

According to WHO, pulmonary tuberculosis is a disease of global concern. In accordance with the 2030 Sustainable Development Goals, WHO targets to reduce the mortality caused by pulmonary tuberculosis by 90%. In 2015 there were an estimated 10.4 million new cases or 142 cases / 100,000 population. The highest number of new cases is in Indonesia, which is the second largest country in the world after India. 60% of new cases were found in 6 countries, namely India, Indonesia, China, Pakistan and South Africa. An estimated 1.4 million deaths are caused by pulmonary tuberculosis and remain the highest cause of death in the world<sup>(1)</sup>.

The success rate of pulmonary tuberculosis treatment is influenced by several factors, namely: 1). Patients do not adhere to taking anti-tuberculosis drugs, patients change health care facilities and drug-resistant bacteria, 2). The supervisor swallows the drug does not carry out his role correctly, 3). Patients delay taking medication and the quality of drugs decreases because storage is not standardized<sup>(2)</sup>.

#### **METHODS**

This research was carried out in the work area of the City Health Center in Parepare, South Sulawesi, Indonesia. The purpose of this study was to analyze the influence of characteristics of supervisors swallowing drugs participants including demographic characteristics (age, sex, education, socio-economic), knowledge, attitudes and practices; on the performance of "supervisors swallowing drugs" in an effort to build adherence to patients with pulmonary tuberculosis in the treatment process, using a cross sectional design. The population of this study were all "drug swallowing supervisors" in the Parepare City Health Center Work Area, South Sulawesi, Indonesia. The sample in this study were 88 people selected by purposive sampling technique. Data on the characteristics of respondents, knowledge, attitude and practice were collected through questionnaires. After being collected, the data were analyzed by using logistic regression test.

#### **RESULTS**

Table 1 shows that the average age of respondents was 39.73. The youngest respondent was 16 years old and the oldest was 71 years old.

Table 1. The characteristics of respondent

Characteristics of respondent	Frequency	Percentage
Age		
≤20	6	6.8
21-30	21	23.9
31-40	19	21.6
41-50	24	27.3
51-60	11	12.5
>60	7	8.0
Gender		
Male	31	35.2
Female	57	64.8
Education		
Elementari school	8	9.1
Junior high school	21	23.9
Senior high school	45	51.1
Diploma	3	3.4
Under-graduate	10	11.4
Graduate	1	1.1
Job		
Housewife	45	51.1
State employee	8	9.1
Private employees	5	5.7
Honorary employee	4	4.5
Farmer	2	2.3
Labor	4	4.5
Driver	2	2.3
Entrepreneur	17	19.3
Retired	1	1.1
Income		
≤1.500.000	31	35.2
1.500.001-3.000.000	55	62.5
>3.000.000	2	2.3

Table 2. The relationship between knowledge, attitudes and practices about pulmonary tuberculosis is based on the characteristics of respondents

Characteristic	Category —	K	p-value	
		Less	Fair Good	
Age	≤20	0 (0.0%)	6 (100.0%) 0 (0.0%)	)
	21-30	3 (14.3%)	16 (76.2%) 2 (9.5%)	)
	31-40	5 (26.3%)	14 (73.7%) 0 (0.0%)	0.105
	41-50	6 (25.0%)	18 (75.0%) 0 (0.0%)	0.103
	51-60	5 (45.5%)	6 (54.5%) 0 (0.0%)	)
	>60	4 (57.1%)	3 (42.9%) 0 (0.0%)	)
Gender	Male	8 (25.8%)	21 (67.7%) 2 (6.5%)	0.209
	Female	15 (26.3%)	42 (73.7%) 0 (0.0%)	0.209
Education	Elementary school	3 (37.5%)	4 (50.0%) 1 (12.5%	)
	Junior high school	5 (23.8%)	16 (76.2%) 0 (0.0%)	0.167
	Senior high school	14 (31.1%)	30 (66.7%) 1 (2.2%)	0.167
	College	1 (7.1%)	13 (92.9%) 0 (0.0%)	)
Income	≤1.500.000	10 (32.3%)	20 (64.5%) 1 (3.2%)	0.660
	>1.500.000	13 (22.8%)	43 (75.4%) 1 (1.8%)	0.660
Job	No job	14 (31.1%)	31 (68.9%) 0 (0.0%)	)
	State employee	3 (37.5%)	5 (62.5%) 0 (0.0%)	)
	Private employee/	4 (18.2%)	17 (77.3%) 1 (4.5%)	0.468
	Entrepreneur	` ,		
	Others	2 (15.4%)	10 (76.9%) 1 (7.7%)	)

Table 3. The relationship between respondents' attitudes about pulmonary tuberculosis based on the characteristics of respondents

Characteristic	Category -	Attitude			p-value
		Not support	Less support	Support	
Age	≤20	0 (0.0%)	5 (83.3%)	1 (16.7%)	
	21-30	0 (0.0%)	13 (61.9%)	8 (38.1%)	
	31-40	0 (0.0%)	14 (73.7%)	5 (26.3%)	0.651
	41-50	0 (0.0%)	17 (70.8%)	7 (29.2%)	0.031
	51-60	0(0.0%)	10 (90.9%)	1 (9.1%)	
	>60	0(0.0%)	5 (71.4%)	2 (28.6%)	
Gender	Male	0 (0.0%)	25 (80.6%)	6 (19.4%)	0.327
	Female	0(0.0%)	39 (68.4%)	18 (31.6%)	
Education	Elementary school	0 (0.0%)	6 (75.0%)	2 (25.0%)	
	Junior high school	0(0.0%)	15 (71.4%)	6 (28.6%)	0.686
	Senior high school	0(0.0%)	31 (68.9%)	14 (31.1%)	0.080
	College	0 (0.0%)	12 (85.7%)	2 (14.3%)	
Income	≤1.500.000	0 (0.0%)	22 (71.0%)	9 (29.0%)	0.002
	>1.500.000	0 (0.0%)	43 (75.4%)	1 (1.8%)	0.982
Job	No job	0 (0.0%)	29 (64.4%)	16 (35.6%)	
	State employee	0 (0.0%)	6 (75.0%)	2 (25.0%)	
	Private employee/	0 (0.0%)	18 (81.8%)	4 (18.2%)	0.338
	Entrepreneur	` ,	` '	` ,	
	Others	0 (0.0%)	11 (84.6%)	2 (15.4%)	

Table 4. The relationship between respondents' practice about pulmonary tuberculosis based on the characteristics of respondents

Characteristic	Category —	Practice			p-value
		Less	Fair	Good	
Age	≤20	0 (0.0%)	6 (100.0%)	0 (0.0%)	
	21-30	1 (4.8%)	20 (95.2%)	0(0.0%)	
	31-40	0 (0.0%)	18 (94.7%)	1 (5.3%)	0.873
	41-50	0 (0.0%)	23 (95.8%)	1 (4.2%)	0.673
	51-60	0(0.0%)	11 (100.0%)	0(0.0%)	
	>60	0 (0.0%)	7 (100.0%)	0 (0.0%)	
Gender	Male	0 (0.0%)	30 (96.8%)	1 (3.2%)	1.000
	Female	1 (1.8%)	55 (96.5%)	1 (1.8%)	
Education	Elementary school	0 (0.0%)	8 (100.0%)	0 (0.0%)	
	Junior high school	0 (0.0%)	20 (95.2%)	1 (4.8%)	1 000
	Senior high school	1 (2.2%)	43 (95.6%)	1 (2.2%)	1.000
	College	0 (0.0%)	14 (100.0%)	0(0.0%)	
Income	≤1.500.000	1 (3.2%)	30 (96.8%)	0 (0.0%)	0.272
	>1.500.000	0 (0.0%)	55 (96.5%)	2 (3.5%)	0.272
Job	No job	1 (2.2%)	43 (95.6%)	1 (2.2%)	
	State employee	0 (0.0%)	7 (87.5%)	1 (12.5%)	
	Private employee/ Entrepreneur	0 (0.0%)	22 (100.0%)	0 (0.0%)	0.453
	Others	0 (0.0%)	13 (100.0%)	0 (0.0%)	

## DISCUSSION

The results showed that the highest respondent age was 41-50. The results showed that age factors were not a determinant of patient disobedience in treatment, because those who were young and old had the motivation to live healthy and always pay attention to their health. This is not in line with the statement of Robbins (2003) which states that the age group of 15-55 years is the age group that has a very high mobility so that the possibility of being exposed to Micobacterium bacteria is greater. In addition, endogenous reactivity can occur at an old age<sup>(3)</sup>.

Dotulong et al (2015) showed that based on age groups, most were found in respondents aged 15-54 years<sup>(4)</sup>. This is connected with a solid work environment. Such working conditions make it easier for someone

who is of productive age to be easier and suffer more from tuberculosis. Widjanarko et al. (2006) showed that at the age of more than 40 years physiologically there was a decrease in physical and mental abilities. Another factor is the increase in activities and family responsibilities along with increasing age, will also increase the economic needs for the increasing costs of their children<sup>(5)</sup>.

Aditama (2005) states that the prevalence of pulmonary tuberculosis mostly affects men because most men have smoking habits. Besides that men are more at risk because they have a higher social interaction than women<sup>(6)</sup>.

Artatananya (2013) which states that education level has a positive effect on work experience. The higher the level of education, the higher the work experience gained<sup>(7)</sup>.

The results of the study show that the average knowledge of respondents is good. This shows that one's knowledge about an object contains two aspects, namely positive and negative. Both scientific aspects will ultimately determine a person's attitude about a particular object. The more positive aspects of known objects, the more positive attitude towards the object will arise.

Jumaelah (2013) reported that there was a positive relationship between knowledge and supervisory practice of ingesting drugs. With good knowledge it will also be good practice of the watchdog to swallow the medicine to monitor pulmonary tuberculosis patients in swallowing the medicine. The higher the level of education of the respondent, the better the reception of information about the treatment of the disease so that the treatment process and healing will become more regular<sup>(8)</sup>.

According to Widjarnako (2006), knowledge, attitude and practice factors have a great influence on the health status of individuals and communities and play an important role in determining the success of a program of prevention, treatment and eradication of a disease, including pulmonary tuberculosis<sup>(5)</sup>.

#### **CONCLUSION**

Based on the results of the study it was concluded that the performance of supervisors swallowing drugs related to work status.

## **REFERENCES**

- 1. Depkes RI. Indonesian Tuberculosis Management Strategy 2006-2010 (Strategi Penanggulangan Tuberkulosis Indonesia 2006-2010). Jakarta: Departemen Kesehatan RI; 2007.
- 2. Kemenkes RI. National Strategy for TB Control in Indonesia 2010-2014 (Strategi Nasional Pengendalian TB di Indonesia 2010-2014). Jakarta: Ditjen P2&PL Kemenkes RI; 2011.
- 3. Robbins SP. Organizational Behavior (Perilaku Organisasi). Jakarta: Indeks; 2003.
- 4. Dotulang JF, Sapulete MR, Kandou GD. Relationship between Age, Gender and Occupancy Risk Factors with Pulmonary TB Disease in Wori Village, Wori District (Hubungan Faktor Risiko Umur, Jenis Kelamin dan Kepadatan Hunian dengan Kejadian Penyakit TB Paru di Desa Wori Kecamatan Wori). 2015.
- 5. Widjanarko B, Prabamurti PN, Widayat E. The Influence of Characteristics, Knowledge and Attitudes of Officers Hold of the Health Center Lung Tuberculosis Program on the Discovery of Pulmonary Tuberculosis in Blora Regency (Pengaruh Karakteristik, Pengetahuan Dan Sikap Petugas Pemegang Program Tuberkulosis Paru Puskesmas Terhadap Penemuan Suspek TB Paru di Kabupaten Blora). Jurnal Promosi Kesehatan Indonesia. 2006;1(1):41-62.
- 6. Aditama TY. Patterns of Symptoms and Trends in Treatment for Patients with Lung Tuberculosis (Pola Gejala dan Kecenderungan Berobat Penderita Tuberkulosis Paru). Jakarta: Cermin Dunia Kedokteran; 2006.
- 7. Artatanaya. The Influence of Education, Work Experience, and Communication on the Performance of the General Manager in Five-Star Hotels in Bali (Pengaruh Pendidikan, Pengalaman Kerja, dan Komunikasi Terhadap Kinerja Sekretaris General Manager pada Hotel Berbintang Lima di Bali). Jurnal Bisnis dan Kewirausahaan. 2013;9(2):1-12.
- 8. Jumaelah N. The Relationship between the Performance of Drug Swallowing Supervisors on the Success of Pulmonary TB Treatment with DOTS in Dr. Kariadi Semarang (Hubungan Kinerja Pengawas Menelan Obat terhadap Keberhasilan Pengobatan TB Paru dengan DOTS di RSUP Dr. Kariadi Semarang). Jurnal Medica Hospitalia. 2013;2(1):54-57.