

The Relationship Between Coping Ability And Anxiety Levels In Pulmonary Tuberculosis Patients At Rantau Parapat General Hospital

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ABSTRACT

The inability of TB sufferers to carry out treatment can have an impact on the emergence of TB sufferers' concerns about their condition. The emergence of feelings of fear experienced by TB sufferers caused by their inability to carry out TB treatment properly will cause anxiety in TB sufferers. The purpose of the study was to determine the relationship between coping ability and anxiety levels in Pulmonary TB patients at Rantau Parapat General Hospital. Type of quantitative research with a *cross sectional approach*. The research was conducted at Rantau Parapat General Hospital in June-July 2021. The study population was 95 Pulmonary TB patients, The sampling technique in this study used *Total Sampling*, the study sample was 95 Pulmonary TB patients. Univariate and bivariate, bivariate data analysis techniques using *Chi Square test*. The results of the study There was a relationship between coping ability and anxiety levels in Pulmonary TB patients with a *P-Value* value of 0.001 <0.05. Advice as input to patients to continue to run Pulmonary TB treatment to get maximum treatment.

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INTRODUCTION

Pulmonary tuberculosis (pulmonary TB) is one of the highest prevalence infectious diseases in the world. Based on the report of the *World Health Organization* (WHO, 2012) one-third of the world's population, which is around two billion people, is infected with *Mycobacterium Tuberculosis*. More than 8 million people are affected by active TB each year and about 2 million die. More than 90% of TB cases and deaths come from developing countries, one of which is Indonesia (Ministry of Health of the Republic of Indonesia, 2012).

According to the *World Health Organization* from 2010 to March 2011, in Indonesia there were 430,000 patients with pulmonary TB with a death toll of 61,000. This number is smaller than the incidence in 2009 which reached 528,063 patients with pulmonary TB with 91,369 people died (WHO *Tuberculosis Profile*, 2012).

Based on data from the *World Health Organization* (WHO) in 2016 showed the number of new cases of tuberculosis (TB) reached 10.4 million people, Indonesia ranks second in the number of TB patients in the world at 1.2 million cases. Data in Indonesia shows the prevalence of pulmonary TB disease in 2016 amounted to 274 cases (Dinkes RI 2016).

In Indonesia, *tuberculosis* is a major public health problem with the number ranking 3rd highest in the world after China and India, with about 10% of the total number of tuberculosis patients in the world. There are an estimated 539,000 new cases and 101,000 deaths each year. The number of cases of pulmonary TB in Indonesia characterized by the presence of positive Acid-Resistant Babacilli (BTA) in patients is 110 per 100,000 population (Risksedas, 2013).

The inability of TB sufferers to carry out treatment can have an impact on the emergence of TB sufferers' concerns about their condition. The emergence of feelings of fear experienced by TB

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sufferers caused by their inability to carry out TB treatment properly will cause anxiety in TB sufferers. Nurjanah (2008) states that one of the precipitating factors of anxiety is a threat to one's integrity. Anxiety is an unpleasant feeling of fear accompanied by increased physiological tension, where there is a push between threatening situations but must be faced or avoided. In someone who experiences anxiety will show several symptoms. Anxiety triggers not only physical, but also psychological symptoms. In addition to experiencing symptoms such as palpitations, diarrhea, dizziness, cold sweats, and shortness of breath, anxious people can also have psychological symptoms, such as worry, anxiety, nervousness, or fear (Sosrosumihardjo, 2015).

Anxiety is neurotic helplessness, insecurity, immaturity, and inability to face the demands of reality (environment), difficulties and pressures of daily life (Syamsu Yusuf, 2009). Another opinion explains that anxiety is a manifestation of various emotions that are felt when a person feels depressed feelings and minds. This situation causes feelings of anxiety, fear and guilt (Supriyantini, 2010).

The results of Basic Health Research (Riskesdas) in 2018 showed that the increase in the proportion of anxiety disorders in the data obtained was quite significant compared to Riskesdas 2013, which rose to 7%.

It is estimated that the incidence of anxiety is 15% of the entire population in the world (Kessler, 2009). Women are 2 times more anxious than men (Hawari, 2011). Based on the results of a survey conducted by *World Mental Health* in developed countries, developing countries, and underdeveloped countries, psychiatric disorders are found in each country, but the highest is anxiety. As a result of this, anxiety problems are a constant problem encountered in various countries (Kessler, 2009). In Indonesia, the prevalence of mental emotional disorders such as anxiety disorders and depression has decreased from 11.6% (Riskesdas, 2007) to 6% of the population aged over 15 years (Riskesdas, 2013). Meanwhile, for the West Sumatra region, the prevalence of anxiety disorders was also found to have decreased from 13.9% (Riskesdas, 2007) to 4.5% of the population aged over 15 years (Riskesdas, 2013). The peak age for someone experiencing an anxiety disorder is at the age of 13-21 years (Kessler, 2009).

The level of anxiety is influenced by several factors, both biological factors, which are sourced or determined by congenital and physiological factors, namely those that affect or manifest in physical symptoms, especially in the function of the central nervous system, both from within the patient and from outside the patient, acceptance of the implementation of hemodialysis, socioeconomic, age of the patient, patient's condition, duration and frequency of undergoing hemodialysis arise due to threats from the patient so as to cause psychological responses and Patient behavior can be observed, while self-threat in hemodialysis patients can come from human responses (nurses), human interaction and the environment exposed by the tools used. Patients who experience long-term dialysis will feel worried about their pain conditions that cannot be predicted and have an effect on lifestyle (Rahman, Heldawati & Sudirman, 2014).

An effort that a person can make to cope with stress and anxiety is with coping strategies. Coping is an attempt made by individuals to overcome anxiety or psychological stress (Potter & Perry, 2010). The coping mechanism is one way to adapt to stress (Saam & Wahyuni in Taluta, Mulyadi & Hamel, 2014). A person can overcome stress and anxiety by mobilizing coping resources in the environment in the form of economic capital, problem-solving abilities, social support and cultural beliefs (Stuart in Taluta, Mulyadi & Hamel, 2014).

METHOD

This research is a quantitative research with the design of this study is descriptive correlational. The research was conducted at Rantau Parapat General Hospital in June-July 2021. The population in this study was Pulmonary TB patients at Rantau Parapat General Hospital

which amounted to 95 patients obtained from medical record data of Rantau Parapat General Hospital. The sampling technique in this study used *Total Sampling*. Bivariate test using *Chi Square Test*.

RESULTS AND DISCUSSION

Hasil Univariat Characteristics of Respondents

Table 1. Frequency distribution based on respondent characteristics

Data	n	%
Age		
Early Adult (26-35 Years)	11	11,6
Late Adult (36-45 Years)	59	62,1
Early Elderly (46-55 years)	24	25,3
Late Elderly (56-65 Years)	1	1,1
Total	95	100
Gender		
Man	80	84,2
Woman	15	15,8
Total	95	100
Recent Education		
SD	24	25,3
SMP	36	37,9
SMA	29	30,5
D-3	3	3,2
S-1	3	3,2
Total	95	100
Work		
Farmer	2	2,1
Wiraswasta	62	65,3
Private Employees	20	21,1
Teacher	4	4,2
Honorary	5	5,3
IRT	2	2,1
Total	95	100

Based on table 1 above, it is known that from 95 respondents, the majority of Pulmonary TB respondents aged 36-45 years (late adults) were 59 people (62.1%), followed by those aged 46-55 years (early elderly) as many as 24 people (25.3%), aged 26-35 years (early adults) as many as 11 people (11.6%), aged 56-65 years (late elderly) as many as 1 person (1.1%). Based on the gender of Pulmonary TB respondents, it was found that the majority of respondents were male as many as 80 people (84.2%), followed by female sex as many as 15 people (15.8%). Based on the latest education of Pulmonary TB respondents, it was found that the majority of respondents had 36 years of junior high school education (37.9%), followed by respondents with high school education as many as 29 people (30.5%), respondents with elementary school education as many as 24 people (25.3%), respondents with D-3 and S-1 education as many as 3 people each (3.2%). Based on the work of Pulmonary TB respondents, it was found that the majority of respondents had jobs as self-employed as many as 62 people (65.3%), followed by respondents who worked as private

employees as many as 20 people (21.1%), respondents who worked as honoraries as many as 5 people (5.2%), respondents who worked as farmers and IRT each as many as 2 people (2.1%).

Frequency Distribution Based on Research Variables

Table 2. Frequency Distribution Based on Research Variables

Data	n	%
Koping Mechanism		
Adaptive Sickness (25-61)	37	38,9
Adaptive (62-100)	58	61,1
Total	95	100
Anxiety Level		
Mild Anxiety (20-39)	49	51,6
Emergency In (40-59)	11	11,6
Heavy Emergency (60-80)	35	36,8
Total	95	100

Based on table 2, it was found that of the 95 respondents with pulmonary TB, the majority had adaptive coping mechanisms (62-100) as many as 58 respondents (61.1%), followed by respondents with adaptive mal coping mechanisms (25-61) as many as 37 respondents (38.9%). Based on the level of anxiety, data were obtained that respondents of Pulmonary TB from 95 people, the majority had mild anxiety levels (20-39) as many as 49 respondents (51.6%), followed by respondents in the severe anxiety category (60-80) as many as 35 people (36.8%) and respondents with moderate anxiety category (40-59) as many as 11 people (11.6%).

Bivariate Results

The relationship between coping ability and anxiety levels in pulmonary TB patients

Table 3. The relationship between coping ability and anxiety levels in pulmonary TB patients

Coping Capabilities	Anxiety Level			Total	P-Value
	Light (20-39)	Keep (40-59)	Heavy (60-80)		
Adaptive Sickness (25-61)	17	3	7	27	0,001
Adaptive (62-100)	47	9	12	68	
Total	64	12	19	95	

Based on table 3, it is known that there is a relationship between coping ability and anxiety levels in Pulmonary TB patients with a *P-Value* value of 0.001 <0.05.

DISCUSSION

Characteristics of Respondents

Respondent's Age

Based on research data conducted by researchers, it is known that from 95 respondents, the majority of Pulmonary TB respondents aged 36-45 years (late adults) were 59 people (62.1%), followed by those aged 46-55 years (early elderly) as many as 24 people (25.3%), aged 26-35 years (early adults) as many as 11 people (11.6%), aged 56-65 years (late elderly) as many as 1 person (1.1%). The results of Mustafa's research, (2019) showed that of the 40 respondents, the productive age group had the largest number of respondents, namely 36 respondents (90%). This illustrates

that respondents of productive age are more than respondents of non-productive age, which is as many as 4 respondents (10%).

Respondent's Gender

Based on research data conducted by researchers, the sex of Pulmonary TB respondents found that the majority of respondents were male as many as 80 people (84.2%), followed by female sex as many as 15 people (15.8%). The results of Mustafa's research, (2019) showed that of the 40 respondents, the male respondent group had the highest number of respondents, namely 23 respondents (57.5%). This illustrates that there are more male respondents than female respondents, which is as many as 17 respondents (42.5%).

Respondent's Last Education

Based on research data conducted by researchers, the last education of Pulmonary TB respondents was found that the majority of respondents had 36 years of junior high school education (37.9%), followed by respondents with high school education as many as 29 people (30.5%), respondents with elementary school education as many as 24 people (25.3%), respondents with D-3 and S-1 education as many as 3 people each (3.2%). The results of Mustafa's research, (2019) showed that of the 40 respondents, the group with further education (PL) had the highest number of respondents, namely 33 respondents (82.5%). This shows that the further education (OT) group is more than the basic education group (PD) as many as 7 respondents (17.5%).

Respondent's Occupation

Based on research data conducted by researchers, the work of Pulmonary TB respondents found that the majority of respondents had jobs as self-employed as many as 62 people (65.3%), followed by respondents who worked as private employees as many as 20 people (21.1%), respondents who worked as honoraries as many as 5 people (5.2%), respondents who worked as farmers and IRT each as many as 2 people (2.1%). The results of Mustafa's research, (2019) showed that of the 40 respondents, the working group had the highest number of respondents, namely 21 respondents (52.5%). This shows that the group that works more than the group that does not work is as many as 19 respondents (47.5%).

Respondent's Coping Ability

Based on research data conducted by researchers, it was found that of 95 respondents of Pulmonary TB, the majority had adaptive coping mechanisms (62-100) as many as 58 respondents (61.1%), followed by respondents with adaptive mal coping mechanisms (25-61) as many as 37 respondents (38.9%). Effective coping occupies a central place in the health of the body and the body's rejection power against interference and attacks of a disease and the body's rejection power against interference or attack of a disease both physical and psychological, social, spiritual (Nursalam, 2007 in Indah, 2016). If the chosen coping mechanism is successful, the individual will be able to adapt to the changes that occur. Coping mechanisms can be learned, from the very beginning of the onset of the stressor. An individual's coping ability depends on temperament, perception, and cognition as well as the cultural background or norms in which he or she grew up.

Respondents' Anxiety Levels

Based on research data conducted by researchers, data were obtained that respondents of Pulmonary TB from 95 people, the majority of whom had mild anxiety levels (20-39) as many as 49 respondents (51.6%), followed by respondents in the category of severe anxiety (60-80) as many as 35 people (36.8%) and respondents with moderate anxiety category (40-59) as many as 11 people (11.6%).

The results of Mustafa's research, (2019) showed that out of 40 respondents, the group that experienced moderate anxiety had the highest number of respondents, namely 16 respondents (40.0%). This shows that the moderately anxious group is more than the mild anxious group as many as 15 respondents (37.5%) and severe anxiety as many as 9 respondents (22.5%). According to Putri (2016), anxiety or anxiety is closely related to feelings of uncertainty and helplessness. This state has no specific object. Conditions are subjectively experienced and communicated in interpersonal relationships. Anxiety is an individual's response to an unpleasant situation and is experienced by all living things in everyday life. Anxiety is different from fear, the characteristic of fear is that uncertainty can cause anxiety that manifests in anxiety, insecurity, worry that arises because it is felt that it will experience events that are not exciting. Anxiety arises because of a response to stressful conditions or conflict.

The relationship between coping ability and anxiety levels in pulmonary TB patients

Based on research data conducted by researchers that there is a relationship between coping ability and anxiety levels in Pulmonary TB patients with a *P-Value* value of 0.001 <0.05. Coping mechanisms are ways used by individuals in solving problems, overcoming changes that occur and threatening situations both cognitive and behavioral (Nasir and Muhith, 2011). Stuart (2012) states that coping mechanisms are divided into 2, namely adaptive and maladaptive coping mechanisms. Adaptive coping mechanisms are coping mechanisms that support growth, learning and achieving goals. While maladaptive coping mechanisms are coping mechanisms that inhibit growth, and tend to dominate the environment.

The results of Sartika's study, (2018) showed that almost half of respondents whose coping mechanisms were adaptive, had a mild level of anxiety of 13 respondents with a percentage (36.1%). The results of the *spearman rank* statistical test obtained a significant number or probability number (0.000) much lower than a significant standard of 0.05 or ($p < \alpha$), then the H0 data was rejected and H1 was accepted which means there is a relationship between coping mechanisms and anxiety levels in chronic kidney failure patients undergoing hemodialysis at Bangil Hospital. According to researchers, chronic kidney failure patients who use adaptive coping mechanisms are more likely to experience mild anxiety. In contrast, chronic renal failure patients who use maladaptive coping mechanisms are more likely to experience moderate and severe anxiety. This can be seen in the results of the study, namely the use of coping resources such as social support and individual belief values helps individuals develop adaptive coping so that the anxiety felt by individuals tends to be mild and moderate, and vice versa.

The results of this study are in line with Romani's research (2012) which states that there is a significant relationship between individual coping mechanisms and anxiety levels of chronic kidney failure patients in the Hemodialysis Unit of Dr. Soeradji Tirtonegoro Klaten Hospital. According to Salmawati (2013) anxiety also has an impact on the patient's physical state, where the body will feel bad as a result of increased secretion of adrenaline and non-adrenaline hormones. As a result, the body will feel pain and spasm in the muscles, especially in the muscles of the neck, chest and back.

CONCLUSION

There is a relationship between coping ability and anxiety levels in Pulmonary TB patients with a *P-Value* value of 0.001 <0.05.

REFERENCE

Andika, Surya. (2016). *Hubungan tingkat kecemasan dengan tingkat kualitas hidup pasien tuberkulosis paru di puskesmas perumnas ii kecamatan pontianak barat*. Pontianak.

- Brunner & Suddart. (2013). *Keperawatan Medikal Bedah. Edisi 12.* (Edisi 12). EGC
- Brunner & Suddarth. (2016). *Keperawatan Medikal Bedah Brunner & Suddarth Edisi 12.* Jakarta EGC
- Depkes RI, 2012. *Pedoman Nasional Penanggulangan Tuberculosis.* Jakarta: Depkes RI.
- Hawari, D. (2013). *Manajemen Stres, Cemas, dan Depresi.* Jakarta : Fakultas Kedokteran Universitas Indonesia
- Kementerian Kesehatan Republik Indonesia. (2018). *Data dan Informasi Profil Kesehatan Indonesia 2017. Profil Kesehatan Indonesia 2017, 100.*
- Kementerian Kesehatan Republik Indonesia. (2017). *Data dan Informasi Profil Kesehatan Indonesia 2017.*
- Kementerian Kesehatan RI. *Profil Kesehatan Indonesia 2015.* Jakarta: Kementerian Kesehatan RI, 2016.
- Lestari,T. (2015.) *Kumpulan Teori Untuk Kajian Pustaka Penelitian Kesehatan.* Nuha Medika. Yogyakarta.
- Maliati, Nulwita. (2018.) *Gender dan Jenis Kelamin.* Universitas Malikussaleh – Aceh
- Mansjoer, dkk. (2007). *Kapita Selekta Kedokteran.* Jakarta:Aeskulapius FKUI
- Marni. (2014). *Asuhan Keperawatan Pada Anak dengan Gangguan Pernafasan.* Gosyen publishing. Yogyakarta.
- Nurarif,A.H & Kusuma,H. (2015). *Aplikasi Asuhan Keperawatan Berdasarkan Dignosa Medis Dan Nanda Nic-Noc Edisi Revisi Jilid 3.*Mediaction Jogja. Yogyakarta.
- Nursalam, (2014). *Metodologi Penelitian Ilmu Keperawatan.* Jakarta. Salemba Medika
- Nursalam. (2017). *Metodologi Penelitian Ilmu Keperawatan : Pendekatan Praktis Edisi 4.* Salemba Medika. Jakarta.
- Padila. (2013). *Asuhan Keperawatan Penyakit Dalam.* Nuha Medika.Yogyakarta.
- Potter,P.A, Perry. (2010). *Buku Ajar Fundamental Keperawatan.* Jakarta: EGC
- Putri, Astuti Ardi. (2016). *Stategi Budaya Karakter Caring Of Nursing.* In Media. Bogor.
- Riset Kesehatan Dasar (Riskesdas) (2018). *Badan Penelitian dan Pengembangan Kesehatan Kementerian RI tahun 2018.*
- Riset Kesehatan dasar (Riskesdas) (2018). *Pusat data dan Infoemasi Kementerian Kesehatan RI. Infodatin.* Jakarta Selatan.
- Riset Kesehatan Dasar. 2013. *Badan Penelitian Dan Pengembangan Kesehatan Kementerian Kesehatan RI Tahun 2010.*Jakarta RI.
- Saam, Z dan Wahyuni, S. 2014. *Psikologi Keperawatan.* Cetakan I. Jakarta: PT Raja Grafindo Persada.
- Saptarika, R.(2011).*Klasifikasi Profesi, Pekerjaan yang ada di indonesia Sesuai administrasi kependudukan.*
- Soep. (2014). *Faktor-Faktor Yang mempengaruhi Tingkat Kecemasan Pasien TB paru Di RA 3 RSUD Haji Adam Malik Medan Vol.9 No.2.* Medan
- Sosrosuhardjo, D (2015). *Takut Lebih Berbahaya dari Kecemasan.*
- Supriyantini, S,. 2010. *Perbedaan Kecemasan dalam Menghadapi Ujian Antara Siswa Program Reguler dengan Siswa Program Akselerasi.* Skripsi. Medan: Fakultas Psikologi Universitas Sumatera Utara.
- WHO. 2012. *Tuberculosis Profile.*
- Yusuf, Syamsu, 2009, *Mental Hygiene,* Bandung: Pustaka Bani Quraisy.