Application of Listening to Asmaul Husna to Anxiety in Pulmonary Tuberculosis Patients "Case Study"

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Abstract
Pulmonary tuberculosis is one of the infectious diseases that has become a global health problem and causes a variety of adverse health effects, including psychological factors such as poor socioeconomic conditions, lack of social support, and decreased quality of life due to a diagnosis that causes anxiety in the majority of pulmonary TB patients. Consequently, proper treatment measures are required to limit the prevalence of pulmonary tuberculosis and its potential consequences. This research intends to investigate the effect of listening to Asmaul Husna on anxiety in patients with pulmonary tuberculosis at Makassar’s TK II Pelamonia Hospital. The descriptive technique is a case study of two individuals with pulmonary tuberculosis who meet the following criteria: age > 20 years, Muslim, first 3 months of therapy, willingness to be responders, and excellent orientation. Using a smartphone, patients hear 99 names or traits of Allah that are beneficial for treating the ailment 1 time each day for 10 to 15 minutes. The data were descriptively examined and provided in tabular format. The first responder reported mild anxiety both before and after hearing the Asmaul Husna on the first day of the visit, whereas the second respondent experienced moderate anxiety both before and after hearing the Asmaul Husna. On the second day, the degree of anxiety experienced by the first respondent remained the same as on the first day (moderate scale), however the level of anxiety experienced by the second respondent dropped or eliminated after hearing Asmaul Husna.

Introduction
Pulmonary tuberculosis (pulmonary TB) is an infectious disease and has become a worldwide health problem caused by Mycobacterium tuberculosis and spreads through the air when a patient sneezes, coughs or spits (Fitriani & Pratiwi, 2020; Kendra Brett et al., 2020). Globally, by 2020 it is estimated that pulmonary TB affects about 10 million people, 5.6 million of whom are men, 3.3 million women and 1.1 million are found in children. The World Health Organization (WHO) estimates that the death rate for pulmonary TB will reach 1.5 million and will become the second cause of death after Covid-19 (after HIV/AIDS) in 2020 (WHO, 2021). In Indonesia, the prevalence of pulmonary TB in 2018 was 321/100,000 population (Ministry of Health, 2019). Meanwhile, the incidence of pulmonary TB in South Sulawesi according to doctor's diagnosis was 20,127 (0.36%) and the highest was in Pangkajene Islands Regency with 1,901 (1.03%) (Riskesdas, 2018). The high prevalence of pulmonary TB has caused global ill health every year in millions of people (Duko et al., 2015). To reduce the incidence and mortality of pulmonary TB, the right management strategy for patients is needed.
In Indonesia, treatment guidelines refer to the recommendations of WHO and the International Standard for TB Care (ISTC) (Ministry of Health, 2019). However, during treatment, patients can experience various unpleasant side effects, as a result many TB patients start treatment but do not finish it, causing relapse and contributing to increased morbidity, mortality, costs, duration of treatment and drug resistance at both the individual and community levels (Kulkarni et al., 2013). This condition can interfere with the patient's self-confidence both physically and emotionally in the social environment because pulmonary TB is known as a social disease and a stigmatizing disease (Yılmaz & Dedeli, 2016). In addition, certain psychological factors such as poor socioeconomic conditions, lack of social support, decreased quality of life due to diagnosis have caused anxiety in most people with pulmonary TB (Amreen & Rizvi, 2016).

Anxiety is a person's emotional response resulting from managing conflicts, problems and tensions. Individuals usually do not have a clear understanding of the causes of their anxiety, which leads to chaos in their lives (Stanton et al., 2020). Anxiety is associated with decreased function and quality of life that can occur in the context of medical illness as one of the most frequent reactions that accompany the onset or recurrence of respiratory disease (Amreen & Rizvi, 2016). In many cases of pulmonary TB, the cause of anxiety is associated with social factors and risk factors such as medical comorbidities and so on (Lara-Espinosa & Hernández-Pando, 2021). Evidence shows that between 7.14% to 74% of people with pulmonary TB experience anxiety due to symptom severity, number of symptoms reported, higher rates of use of health services, low medication adherence, wider travel, medication, lack of disease control and fear of mortality (Shyamala et al., 2018; Duko et al., 2015). Two previous cross-sectional studies conducted in Brazil and Ethiopia respectively showed that tuberculosis patients had a high probability of experiencing depression and anxiety due to stigma and treatment (Santos et al., 2017; Mohammedhussein et al., 2020). Unresolved anxiety will have a negative impact on patients such as decreased adherence to treatment which is the main obstacle in controlling pulmonary TB (Yılmaz & Dedeli, 2016). Therefore, it is important for patients to be given alternative therapies to prevent or overcome the feelings of anxiety they experience.

Alternative therapies that can be given to pulmonary TB patients to overcome or prevent anxiety, one of which is the spiritual method, because this approach will create adaptive coping that will help patients to manage their feelings of anxiety (Yosep & Sutini, 2016). In this study, the spiritual approach given is listening to Asmaul Husna which can make the patient sincere, grateful and induce a state of relaxation that will minimize anxiety and help control emotions. Literally, Asmaul Husna is the name and title of Allah SWT who is good and great based on his attributes. Asmaul Husna readings are heard to patients, can overcome anxiety or fear and heal pain due to illness. Applicatively, this therapy is very easy and fast to do (Hafizhal-Ashqiya, 2011). A previous case study conducted at RSI Jemursari Surabaya on one patient has shown that listening to Asmaul Husna has an effect on reducing anxiety in TB patients (Sari et al., 2020), but these results cannot be generalized to all populations because they only use one patient as a sample in the study. Therefore, this study was conducted to determine the application of listening to Asmaul Husna on anxiety in pulmonary TB patients.

Methods

This study uses a case study descriptive approach to explore the application of listening to Asmaul Husna on anxiety in pulmonary TB patients. The samples in this study were two pulmonary TB patients, with the following criteria: >20 years old; are Muslim; first 3 months of treatment; willing to be a respondent; have a good orientation and composmentist awareness. The instrument used is a smartphone for providing listening therapy for 99 Asmaul Husna. The names or attributes of Allah that are heard to the respondents are: As-Salām, Al-Mu'min Al-Muhaimin, Al-Khaliq, Al-Ghaffar, Ash-Syakur, Al-Majid and Al-Hayyu 1 time/day with a duration of 10-15 minutes, while the assessment of the level of anxiety using the HARS (Hamilton Anxiety Rating Scale) questionnaire consists of 14 components with 72 anxiety...
symptoms. Respondents are said to be not anxious if: score <14; mild anxiety: 14-20; moderate anxiety: 21-27; severe anxiety: 28-41; and panic if the score is >41. Before the respondent was heard Asmaul Husna, the anxiety measurement was first performed, then the Asmaul Husana was heard and the anxiety measurement was repeated to find out the changes after the intervention was given. The intervention was carried out for three days with a duration of 15-30 minutes every day. Data were analyzed using descriptive analysis and presented in tabular form.

Results and Discussion

Respondent Characteristics

This study was conducted for 3 (three) days, involving two respondents who suffered from pulmonary TB aged 56 and 47 years, male, last education was junior high school and high school, where one person is a retired Indonesian Navy and the other is working as a private employee. Characteristics of respondents are clearly presented in table 1.

Table 1. Characteristics of Respondents (N=2)

<table>
<thead>
<tr>
<th>No Respondent</th>
<th>Characteristics of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>initials</td>
<td>Age</td>
</tr>
<tr>
<td>I</td>
<td>Mr &quot;J&quot; 56 years old</td>
</tr>
<tr>
<td>II</td>
<td>Mr &quot;L&quot; 47 years old</td>
</tr>
</tbody>
</table>

Application of Listening to Asmaul Husna Against Anxiety

Table 2. Application of Asmaul Husna's Listening to Anxiety (N=2)

<table>
<thead>
<tr>
<th>Listening to Asmaul Husna</th>
<th>No Respondent</th>
<th>Vital Signs</th>
<th>Anxiety Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day I</td>
<td>I</td>
<td>TD: 120/80 mmHg N: 80 x/i P: 28 x/i S: 36.7 °C</td>
<td>Mild anxiety</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mild anxiety</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>TD: 120/80 mmHg N: 70 x/i P: 30 x/i S: 36.5 °C</td>
<td>Moderate anxiety</td>
</tr>
<tr>
<td>Day II</td>
<td>I</td>
<td>TD: 110/80 mmHg N: 72 x/i P: 24 x/i S: 36.2 °C</td>
<td>Mild anxiety</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mild anxiety</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>TD: 105/70 mmHg N: 67 x/i P: 28 x/i S: 36.4 °C</td>
<td>Mild anxiety</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not anxious</td>
</tr>
<tr>
<td>Day III</td>
<td>I</td>
<td>TD: 100/70 mmHg N: 65 x/i P: 22 x/i S: 35.4 °C</td>
<td>Not anxious</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not anxious</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>TD: 110/70 mmHg N: 68 x/i P: 20 x/i S: 35.7 °C</td>
<td>Not anxious</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not anxious</td>
</tr>
</tbody>
</table>

N: Nadi; P: Breathing; TD: Blood Pressure; S: Temperature
Table 2 shows that on the first and second days, the first respondent had normal Vital Signs (TTV) for blood pressure (120/80 mmHg on the first day and decreased to 110/80 mmHg on the second day), pulse (80 x/i the first day and decreased to 72 x/i on the second day) and temperature (36.7 oC on the first day and on the second day it dropped to 36.2 oC), while the respiratory rate increased above normal (28 x/i on the first day and on the second day), down to 30 x/i). Respondents experienced mild anxiety both before the intervention and after the intervention. On the third day, the respondent had normal blood pressure and temperature (BP: 100/70 mmHg; S: 35.4 oC), while the respondent's pulse was below normal (65 x/i) and breathing was above normal (22 x/i). However, on the third day the respondents did not feel anxious, either before the intervention or after the intervention.

The results of observations on the second respondent showed that on the first day, the respondent had normal blood pressure, pulse and temperature (BP: 120/80; N: 70 x/i; S: 36.5 oC), while the respiratory rate was above normal (30 x/i). Respondents experienced moderate anxiety, both before and after listening to Asmaul Husna. On the second day of visit, respondents had normal blood pressure and temperature (BP: 105/70 mmHg; S: 36.4 oC), while pulse was below normal (67 x/i) and respiratory rate was above normal (28 x/i). However, the respondent's anxiety on the second day was reduced to mild anxiety before being given the intervention and after being given the intervention the anxiety experienced by the client had disappeared. On the third day the respondent's blood pressure, temperature and respiratory rate were within normal limits (BP: 110/70 mmHg; S: 35.7 oC; P: 20 x/i), but the pulse was below normal (68 x/i). However, on the third day, respondents did not feel anxious, both before and after the Asmaul Husna was heard.

Based on a case study that was conducted on two respondents who suffered from pulmonary TB regarding the application of listening to Asmaul Husna on anxiety for three days, it was found that there were gaps between the two clients after Asmaul Husna was heard.

The results showed that, on the first day of the second visit, the respondents had normal blood pressure, pulse and temperature, but the respiratory rates of both respondents were above normal. However, the level of anxiety experienced by respondents was different (the first respondent experienced mild anxiety, while the second respondent experienced moderate anxiety, both before and after the sound of Asmaul Husna); On the second day, the first respondent had normal blood pressure, pulse and temperature, but the respiratory rate was above normal, while the second respondent, normal TTV was only found in blood pressure and temperature, while pulse pressure was below normal and respiratory frequency was above normal. Both respondents experienced the same level of anxiety, namely in the category of mild anxiety, both before and after the Asmaul Husna. While on the third day, the first respondent had normal blood pressure and temperature, while pulse pressure was below normal and respiratory rate was above normal, while the second respondent had blood pressure, temperature and respiratory rate within normal limits, but pulse pressure was below normal. The results of the observations showed that the two respondents did not feel anxious, both before and after the Asmaul Husna was heard.

This research is in line with the theory which suggests that one of the alternative therapies that can be given to pulmonary TB patients to overcome or prevent anxiety is through a spiritual approach, because this approach will form adaptive coping that can help pulmonary TB patients in managing the feelings of anxiety they experience. Yosep & Sutini, 2016). Nafisa (2011) suggests that listening to the reading of Asmaul Husna can be used in overcoming anxiety or pain in various diseases. The results of previous studies suggest that listening to Asmaul Husna has an effect on reducing anxiety in TB patients (Sari et al., 2020).

Applicatively listening to Asmaul Husna is not difficult and easy and fast to implement. This
therapy can reduce physiological pain, stress and anxiety so that it can be used as a complementary therapy for pharmacological therapy because medical therapy alone is not complete without religion and vice versa, religious therapy is not complete without medical therapy (Lukman, 2012). Both relaxation and distraction techniques are based on the belief that the body responds to anxiety that stimulates the mind because of the disease condition (Wulandini et al., 2018). A positive emotional response from the therapeutic effect of listening to Asmaul Husna runs through the body and is accepted by the brain stem. After being formatted with brain language, it is then transmitted to one part of the cerebrum, the hypothalamus, then transmits impulses to the hippocampus (vital memory center for coordinating everything that is absorbed by the senses) to secrete GABA (Gama Amino Batiric Acid) which serves as a controller of emotional responses, and inhibit or reduce the activity of neurons or nerve cells, Corticotropin Releasing Hormone (CRH) and other neurotransmitters that produce cortisol and other stress hormones so that then a homeostatic process will occur and repair the disturbed neurotransmitter system, generate optimism, eliminate negative thoughts and bring up thoughts positive. All the protectors in the human body work with obedience to worship, draw closer to Allah SWT and are good at being grateful so as to create an atmosphere of balance from the neurotransmitters in the brain (Boakye, 2014).

**Limitations**

The case study was only conducted for three days on two subjects, so the results of this study are difficult to generalize to other populations.

**Conclusion**

Based on the results of the study, it was concluded that listening to Asmaul Husna could reduce the anxiety experienced by pulmonary TB patients. Subsequent research with a larger sample and involving a control group that does not listen to Asmaul Husna is urgently needed so that it can assess a greater effect on the application of listening to Asmaul Husna on anxiety in pulmonary TB patients so that it can be generalized to other populations.

**References**


