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E-counseling development model: modified Psycho-Spiritual and Spiritual Emotional Freedom Technique (PS-SEFT) on anxiety levels and recovery motivation in pulmonary Tuberculosis patients

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Abstract

Pulmonary Tuberculosis (TB) is one of the leading causes of death globally, including in Indonesia. TB patients often experience anxiety, frustration, irritability, and guilt, influenced

by their knowledge, attitudes, beliefs, work, and primarily psychospiritual factors. One form of support provided to these patients is the Psycho-Spiritual and Spiritual Emotional Freedom Technique (PS-SEFT). This research aimed to determine the effect of e-counseling combined with PS-SEFT on anxiety levels and motivation for recovery in TB patients. The study used an experimental, correlational analytical method, with a random sample of 14 respondents suffering from pulmonary tuberculosis. The independent variable was the provision of e-counseling combined with PS-SEFT, and the dependent variables were the levels of anxiety and motivation to recover from TB. Data collection instruments included questionnaires, the HARZ scale, and medical records. Data were processed using various analyses, including the paired t-test and Wilcoxon test. The results showed a significant decrease in anxiety levels after the PS-SEFT intervention, with anxiety reducing by 35.7% from a previously very severe level. Motivation to recover increased significantly, with all 14 patients (100%) showing improvement from moderate to high levels. The Wilcoxon test results indicated a significant difference in the anxiety levels of TB patients before and after the PS-SEFT intervention (p-value=0.005), with the HARZ score decreasing from 95.00 to 32.00. The paired t-test results also showed a significant difference in patient motivation to recover before and after the PS-SEFT intervention (p-value=0.000), with the motivation score increasing from 91.25 to 98.75. Routine PS-SEFT practice by TB patients enhances their ability to manage anxiety and motivates them to recover. The success of these patients must be supported and accompanied by their families.

Introduction

In 2019, Indonesia had 845,000 cases of pulmonary Tuberculosis (TB), with an incidence rate of 312 per 100,000 people, making it the country with the second highest number of cases globally after India.¹ TB is a chronic disease that requires a prolonged treatment period of six

to eight months.² To ensure patients adhere to this lengthy treatment regimen, the Directly Observed Treatment Shortcourse (DOTS) program is crucial. This program ensures that TB patients are accompanied while taking their medication, significantly improving treatment adherence. Successful recovery heavily depends on the patients' compliance with their treatment plan. Non-compliance can lead to difficulties in recovery, repeated treatments, and potential psychosocial impacts. TB patients who do not adhere to their treatment may experience emotional problems such as boredom, lack of motivation, and serious mental health issues like depression. The extended and complex treatment process for TB, along with potential complications, can trigger anxiety.^{3,4}

TB patients must undergo treatment for a minimum of six months. If they take medication irregularly, the TB disease will not be cured and may even become stronger, often causing anxiety. Anxiety in TB patients can also stem from a lack of knowledge and family support. In such cases, outreach and counseling are needed for families and patients to help manage anxiety and employ positive coping mechanisms. This support enables them to live comfortably, feel less anxious, and take appropriate action if a family member experiences health problems.⁵ Counseling services that have been hampered can be provided through e-counseling to families. This approach will enable families to support and assist the patient in managing anxiety and increasing motivation to recover by regularly practicing Psycho-spiritual and Spiritual Emotional Freedom Technique (PS-SEFT) exercises independently. Ultimately, TB patients will be able to reduce their anxiety, live calmly, and increase their motivation to recover.⁶ The benefits of SEFT for anxiety are both spiritual and biological. The spiritual aspect consists of two steps, beginning with the "set-up," which aims to ensure that the body's energy flow is directed appropriately. This step helps to neutralize "psychological reversal" or "psychological resistance" and includes a prayer of surrender.⁷

The second step is "tune-in," which involves focusing on the pain you are experiencing and directing your mind to the location of the pain (self-hypnosis). The biological aspect consists of tapping lightly on the body's 18 energy points, which correspond to the 12 major meridian pathways (the major energy meridians). This tapping stimulates electrically active cells, which are centers of activity consisting of clusters of active cells on the body's surface. This stimulation results in signal transduction, which occurs in biological processes due to the activation of key EFT points.⁸

When someone is in a state of fear and tapping is performed on the acupoints, there is a decrease in amygdala and brain wave activity. This process also halts the participant's fight-or-flight response, creating a relaxation effect that neutralizes all emotional tension experienced by the individual. From a physiological perspective, tapping lightly on the 12 meridian points of the body can stimulate the pituitary gland to release endorphins.⁹ These hormones have a calming effect and induce feelings of happiness.⁹ This study aimed to assess the impact of e-counseling combined with PS-SEFT on anxiety levels and recovery motivation in TB patients.

Materials and Methods

Study design

This type of research was a quasi-experimental study with a pre- post-test group design involving 14 TB patients. The group received an intervention in the form of PS-SEFT and was measured for anxiety levels and motivation to recover before and after receiving the intervention.

Population and sample

The population and sample in this study consisted of target families selected based on criteria of experiencing anxiety and motivation problems. The sample included TB patients

accompanied by their families. In this context, the family is represented by the head of the family or family members who are communicative and cooperative.

Instruments and data collection

The instrument for implementing e-counseling is an activity event unit (SAK) used as a guide for PS-SEFT implementation. Anxiety levels were assessed using the Hamilton Anxiety Rating Scale (HARS).¹⁰ Meanwhile, the motivation to recover is measured using a questionnaire. Data collection activities began with the researcher giving a pretest, followed by carrying out the PS-SEFT exercise for two visits, with one visit every week, to ensure that the patient carried out the e-counseling recommendations. Researchers provide PS-SEFT training at the Community Health Center and, if necessary, attend the patient's home; each time the exercise is given for 20-45 minutes, the patient is asked to be accompanied by their family in a relaxed room with adequate ventilation and lighting. The patient sits next to the therapist; the therapist opens PS-SEFT by directing the patient to carry out the stages of PS-SEFT, namely set-up, tune-in, and tapping. After therapy was completed, the researcher filled out an observation sheet that the patient had carried out PS-SEFT. Continued visits are a form of monitoring and evaluation of the ability to carry out PS-SEFT. Then, the patient and family are given an additional two weeks to carry out PS-SEFT independently. After that, the researchers measured anxiety and motivation to recover and then determined it as a post-test score.

Data analysis

The pre-test and post-test data will be tested for normality using the Shapiro-Wilk test. If the data is not normal, the multivariate ANCOVA will be tested. Normal data followed by Paired T-Test to compare differences in pre- and post-samples, an independent t-test to compare differences in pre-sample data, and using the Wilcoxon multivariate test to compare differences

in the effect of e-counseling modified PS-SEFT samples on levels of anxiety and motivation recovered, with a $p\text{-value} < 0.05$ ($p < \alpha$).

Results

Results of research on the e-counseling development model modified Psycho-Spiritual and Spiritual Emotional Freedom Technique (PS-SEFT) on the level of anxiety and motivation to recover in TB patients in the Surabaya Community Health Center area.

Based on Table 1, the distribution of HARS anxiety level data in TB patients before the PS-SEFT intervention shows that the majority of patients experienced very severe anxiety, with five patients (35.7%) falling into this category. After the PS-SEFT intervention, the patients' anxiety levels decreased significantly. None of the patients remained in the very severe anxiety category. Instead, their anxiety levels shifted to severe, moderate, and no anxiety. Notably, the highest number of patients, 5 (35.7%), fell into the no-anxiety category after receiving the PS-SEFT intervention.

Table 2 showed an increase in the motivation levels of patients after the PS-SEFT intervention. Before the intervention, three patients (21.4%) were in the moderate motivation category, with no patients in the low motivation category. After the PS-SEFT intervention, all patients experienced increased motivation, with 14 patients (100%) falling into the high-motivation category.

A significant difference in patient motivation to recover before and after the PS-SEFT intervention was observed, with a significance value of 0.000. Comparing this significance value with the alpha value of 0.05, it can be concluded that there is indeed a difference in patient motivation to recover from TB disease before and after the PS-SEFT intervention. Furthermore, there was a notable increase in the patient's motivation score after the intervention, rising from 91.25 to 98.75 (Table 3).

The significance value in Table 4 was 0.005, indicating a difference in the anxiety levels of TB patients before and after the PS-SEFT intervention. Moreover, the results demonstrate a decrease in the HARS score for anxiety in TB patients from before the intervention (95.00) to (32.00) after the PS-SEFT intervention.

Discussion

The spirituality factor is a powerful tool for overcoming illness, which can make patients more focused, strong, and dynamic and help them overcome the problems of their illness.¹¹ Spirituality is also integrated into reasoning and problem-solving techniques through an approach that functions as a coping strategy in managing illness and reducing potential stress, such as pain and helplessness.¹² Spirituality is a process of awareness that instills natural goodness in individuals to find the best conditions for developing higher qualities. Spirituality acts as a perspective that encourages the unity of all individual aspects.¹³ Spiritual needs are assessed in the context of health, such as finding meaning and purpose in life and recognizing the importance of good relationships with other people, transcendent forces, and the natural environment.¹⁴ Spiritual factors contribute positively to behavior change, which has an impact on motivation to achieve healing. Controlled treatment of tuberculosis patients will prevent drug resistance and further complications.¹⁵

PS-SEFT focuses on the patient by modifying SEFT movements, therapeutic communication, and efforts to get closer to Allah Almighty as a form of controlling emotions, as expected by the patient and family. The hope of this approach is that patients can try to adapt and overcome the anxiety they experience so that they can be motivated to recover from the disease. When carrying out PS-SEFT, the patient commits himself to believing in Allah Almighty.¹⁶ This is part of the patient's coping mechanism process for the problems that arise as a result of suffering from TB. When doing the SEFT movement exercise, the patient says the phrases

“Istighfar, Astagfirullahal adziim, Laa ilaha Illallah and Allahumma Sholli Ala Muhammad, Hasbunallah wa ni'mal wakiil" followed by “Laa Khaula walaa Quwwata Illa Billahil 'Alliyyil 'Adziim”. This sentence has the effect of deep surrender to *kodarullah* which can minimize the intensity of distress caused by applying the patient's coping mechanisms.

This is a form of effective distraction, namely providing spiritual support by inviting patients to read prayers and sentences of *dhikr, istighfar* so that it can reduce stressor hormones, activate natural endorphin hormones, and increase feelings of relaxation. Apart from that, it will also divert the patient's attention from fear, anxiety, and tension. The body's chemical system is improved, thereby lowering blood pressure and slowing breathing, heart rate, pulse, and brain wave activity.¹⁷ This deeper or slower breathing rate is very good for causing calm, emotional control, deeper thinking, and better metabolism.

If the patient intensely carries out this condition with the full support of the family, an intention will arise in the heart accompanied by a positive attitude or thinking about positive things, gratitude, and patience so that the patient is calm. In turn, patients are able to generate encouragement to continue making efforts and undergo treatment well and regularly. This is where a motivational attitude emerges so that patients always try to manage a healthy life to speed up recovery.¹⁸

Conclusions

Regular and effective practice of PS-SEFT can heighten awareness of the positive insights gained from illness situations and foster self-awareness of divine strength, characteristic of individuals with robust spiritual integrity. This heightened awareness fosters emotional stability and embodies positive behavior. Emotional stability, inversely related to depression, anxiety, and various psychological distresses stemming from health issues, can be achieved through consistent PS-SEFT practice as part of daily routine. The emotional stability resulting

from strong spiritual integrity influences positive behavioral outcomes and correlates with physical well-being. TB patients, supported by their families, engage in intensive PS-SEFT practice with a positive outlook, fostering acceptance, tranquility, and a resilient approach to treatment. Ultimately, patients are motivated to diligently adhere to their treatment regimen, striving to lead genuinely healthy lifestyles to expedite recovery.

References

1. World Health Organization (WHO). TB Incidence. 2020. Available from: <https://www.who.int/teams/global-tuberculosis-programme/tb-reports/global-tuberculosis-report-2022/tb-disease-burden/2-1-tb-incidence>
2. Wulandari L, Wijaya SY. Systemic sclerosis and pulmonary tuberculosis associated with interstitial lung disease: a case report. *Indian J Forensic Med Toxicol* 2021;15:147-53.
3. Suryani S, Widiyanti E, Hernawati T, Sriati A. Psikoedukasi Menurunkan Tingkat Depresi, Stres dan Kecemasan pada Pasien Tuberkulosis Paru. *J Ners* 2016;11:128-33.
4. Ernawati DS, Parmadiati AE, Soebadi B, et al. Prevalence of oral tuberculosis ulcer in DOTS polyclinic of Dr. Soetomo General Hospital Surabaya. *Biochem Cell Arch* 2020;20:2845-8.
5. Hasanah U, Makhfudli M, Ni'mah L, et al. Peer group support on the treatment adherence of pulmonary tuberculosis patients. *IOP Conf Ser Earth Environ Sci* 2019;246:12033.
6. Widyastuti M, Hastuti P, Kirana SAC, Farendita NH. The correlation of spiritual status and anxiety level in patients with pulmonary Tuberculosis. *J Ners* 2020;15:67-71.

7. Church D, Stapleton P, Vasudevan A, O’Keefe T. Clinical EFT as an evidence-based practice for the treatment of psychological and physiological conditions: a systematic review. *Front Psychol* 2022;13:951451.
8. Feinstein D, Ashland O. What does energy have to do with energy psychology. *Energy Psychol Theory Res Treat* 2012;4:59-80.
9. Rokade PB. Release of endomorphin hormone and its effects on our body and moods: a review. In: *International Conference on Chemical, Biological and Environment Sciences*. 2011. p. 436–8.
10. Thompson E. Hamilton rating scale for anxiety (HAM-A). *Occup Med (Chic Ill)*. 2015;65:601.
11. Bau P. Hubungan Dukungan Sosial Spiritual Dengan Motivasi Sembuh Klien Di Ruang Rawat Inap Rumah Sakit St. Carolus Borromeus Kupang. *CHMK Appl Sci J* 2019;2:120-8.
12. Supriyanto, Hamid AYS, Rosyada D, et al. Nurse’s competence in supporting the spiritual-religious needs of patients in Indonesia. *Indian J Public Heal Res Dev* 2019;10:604-8.
13. Khairunnisaa K, Muhdia N, Atikab A, Sitawatia AD. Spiritual well-being, perceived social support, and its correlation with psychological resilience of health workers in Covid-19 Unit at special infection hospital (RSKI) Universitas Airlangga during pandemic. *Health (Irvine Calif)* 2024;10:11.
14. Lalani N. Meanings and interpretations of spirituality in nursing and health. *Religions* 2020;11:428.
15. Setiyowati E, Rahman AH. Penerapan terapi spiritual emotional freedom technique (SEFT) pada penderita tuberculosis dengan masalah keperawatan di Puskesmas Sawahan. *The J Heal Sci* 2020;13:74-80.

16. Kusnanto K, Haryanto J, Sukartin T, et al. The effectiveness of spiritual emotional breathing towards respiratory function and immune response of tuberculosis patients. *J Ners* 2018;13:8373.
17. Pratiwi IN, Hidayati L, Alviani NI, McKenna L. The correlation between anxiety levels and spiritual activities with motivation to recover in pulmonary tuberculosis. *Enfermería Clínica* 2021;31:535-9.
18. Juliasih NN, Mertaniasih NM, Hadi C, et al. Factors affecting tuberculosis patients' quality of life in Surabaya, Indonesia. *J Multidiscip Healthc* 2020;13:1475-80.

Table 1. Anxiety levels in Tuberculosis patients before and after the Psycho-Spiritual and Spiritual Emotional Freedom Technique intervention.

Anxiety Level (HARS Categories)	Before		After	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Not anxious	3	21.4	5	35.7
Mild anxiety	3	21.4	3	21.4
Moderately anxious	2	14.3	4	28.6
Severe anxiety	1	7.1	2	14.3
Very severe anxiety	5	35.7	0	0.0

HARS, Hamilton Anxiety Rating Scale

Table 2. Frequency distribution of motivation to recover in Tuberculosis patients before and after the Psycho-Spiritual and Spiritual Emotional Freedom Technique intervention.

Motivation category	Before		After	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Moderate	3	21.4	0	0
High	11	78.6	14	100.0

Table 3. Differences in motivation to recover in Tuberculosis patients before and after being given the Psycho-Spiritual and Spiritual Emotional Freedom Technique Intervention.

Variable	Mean ± SD	Minimum	Maximum	Sig
Motivation score before intervention	81.73±8.06	71.75	95.00	0,000*
Motivation score after intervention	91.25±2.47	91.25	98.75	

Table 4. Differences in anxiety in Tuberculosis patients before and after being given the Psycho-Spiritual and Spiritual Emotional Freedom Technique intervention.

Variable	Mean ± SD	Minimum	Maximum	Sig
Anxiety before intervention (HARS score)	37.92±31.15	4.00	95.00	0.005*
Anxiety after intervention (HARS Score)	17.14±8.03	4.00	32.00	

HARS, Hamilton Anxiety Rating Scale