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## **Effect of Spiritual Emotional Freedom Technique (SEFT) to Anxiety Patient Chronic Obstructive Pulmonary Disease (COPD)**

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### **ABSTRACT**

**Introduction:** COPD can affect social and psychological aspects as well as physical health. Anxiety, loss of control in self-reliance, changes in self-concept and respiratory barriers result in serious psychological changes, including fear of death and depression. There is a significant relationship between depression and anxiety with sleep quality of chronic disease patients, the higher the degree of depression the worse the quality of sleep. Spiritual Emotional Freedom Technique (SEFT) is a therapy that uses spiritual elements to reduce psychological and physical problems caused by emotional or psychosomatic.

**Methods:** This study use Quasy Experiment "with Pre-Post test group control design approach. The population of this study was the patient of COPD in dr. H. Koesnadi Hospital and Bhayangkara Hospital at Bondowoso. Sampling was done by simple random sampling technique according to inclusion criteria with total 68 patients. SEFT intervention performed 8 times for 1 month. Instrument for anxiety using HARS. Data analysis using Mann Whitney Test.

**Results:** There was a significant difference in the level of anxiety ( $p < 0,000$ ) between before and after SEFT therapy.

**Conclusion:** SEFT can reduce anxiety levels of COPD patients, if done regularly and sustainably. The intervention focuses on reducing emotional or psychosomatic psychological problems.

**Keywords:** *SEFT; Anxiety; COPD*

## **Introduction**

Chronic Obstructive Pulmonary Disease (COPD) is the leading cause of chronic morbidity and mortality worldwide. More than 3 million people die of COPD, in 2012 accounted for 6% of all deaths worldwide (GOLD, 2017). COPD can affect social and psychological aspects as well as physical health. Anxiety, loss of control in self-reliance, changes in self-concept and respiratory barriers result in serious psychological changes, including fear of death and depression (Aydin, 2013). The condition of depression and anxiety that is prolonged without treatment, can create an imbalance of serotonin, an important chemical substance in the brain responsible for making a person happy and socially (Rokade, 2011). According to Valenza *et al.*, (2014) anxiety and depression are the most common psychological consequences of COPD patients and have a negative impact on their quality of life.

Physical and emotional problems such as anxiety, depression, mood problems and confidence related to chronic diseases can be solved by non-pharmacological treatment. piritual Emotional Freedom Technique (SEFT) is a therapy that uses spiritual elements to reduce psychological and physical problems caused by emotional or psychosomatic (Safitri and Sadif, 2013). SEFT developed from Emotional Freedom Technique (EFT), this technique combines the science of acupuncture with behavioral techniques in psychology (Zainuddin, 2012). EFT uses fingers to utilize energy points with a certain number of beats and sequences, along with positive affirmations, some relaxation and visualization techniques (Clond, 2016).

SEFT is one of the safer "energy psychology" therapies, using only a light tap with a fingertip (tapping) on a particular body area (Bougea *et al.*, 2013). According to Swingle *et al.* (2004) Tapping reduces the frequency of brain waves associated with stress or strengthening associated with relaxation, as well as generating other useful physiological changes (Church, De Asis and Brooks, 2012).

## **Method**

This study used Quasy Experiment "with Pre-Post test group control design approach. The population of this study was the patient of COPD in dr. H. Koesnadi Hospital and Bhayangkara Hospital at Bondowoso. Sampling was done by simple random sampling technique according to inclusion criteria with total 68 patients.

Independent variable in this research is Spiritual Emotional Freedom Technique (SEFT). While the dependent variable is the level of anxiety. SEFT therapy interventions were performed twice a week for 1 month. Anxiety levels were measured using a HARS questionnaire. The questionnaire is given when pre-test and post-test. The collected data was then analyzed using Wilcoxon signed rank test statistic test, with significance level  $\alpha < 0,05$ . If the value of  $p < 0,05$  then this means there is influence of SEFT therapy on anxiety levels of patients with COPD. To see the difference between treatment and control group, Mann Whitney test was done with significance level  $\alpha < 0,05$ .

## Result

Demographic data of respondents describes the characteristics of respondents which include 1) gender, 2) age, 3) education, 4) smoking history obtained results in table 1.

Table 1. Distribution of patient characteristics in the treatment group at dr. H. Koesnadi Hospital and control group at Bhayangkara Hospital

Patient Characteristics	Treatment Group		Control Group	
	Total	%	Total	%
<b>Sex</b>				
Male	25	73,5	21	61,8
Female	9	26,5	13	38,2
Total	34	100	34	100
<b>Age (years)</b>				
≤ 40	2	5,8	2	5,8
41 – 50	9	26,4	6	17,6
51 – 60	11	32,5	12	35,4
> 61	12	35,3	14	41,2
Total	34	100	34	100
<b>School</b>				
No	-	-	2	5,9
Primary school	13	38,2	15	44,2
Junior high school	6	17,7	5	14,6
Senior High School	13	38,2	10	29,4
College	2	5,9	2	5,9
Total	34	100	34	100
<b>Smoking History</b>				
Smoking	21	61,8	18	53
No Smoking	13	38,2	16	47
Total	34	100	34	100

Characteristics of patients based on sex of majority of men were 25 patients (73.5%) in the treatment group and 21 patients (61.8%) in the control group. Characteristics of patients by age in the two groups was found to be in the range of age 41-50 years old until age > 61 years but the most at age > 61 years ie 12 patients (35.3%) in the treatment group and 14 patients (41.2%) in the control group. Education in the highest treatment group was elementary and high school ie 13 patients (38.2%) while in the control group most of the elementary education is 15 patients (44.2%).

Characteristics of smoking history with the number of 21 patients in the treatment group (61.8%) and 18 patients in the control group (53%). In some patients did not have a history of smoking, but environmental factors are also suspected causes of COPD such as exposure to fuel and air pollution. Researchers found 7 female patients in the treatment group and 9 female patients in the control group stated that they live in the same house with active smokers. In addition, male patients who claimed to be non-active smokers had a history of working in the workshop, as well as the environmental conditions of patients who were frequently exposed to household waste burning fumes.

After analyzing the data and testing the results of the research quantitatively (Wilcoxon signed rank test test and Mann Whitney) obtained the results in table 2.

Table 2. Anxiety level of patient in the treatment group at dr. H. Koesnadi Hospital and control group at Bhayangkara Hospital

Variable	Group	Pre Median (Min-Max)	Post Median (Min-Max)	Signe d Rank Test
Anxiety	Treatment	16 (8-29)	10 (4-25)	P = 0,000
	Control	14 (8-28)	14 (6-28)	P = 0,180
<i>P value (Mann-Whitney Test)</i>		P = 0,627	P = 0,000	

Mann-Whitney test results above note that the p value of 0.000 is smaller than the value of  $\alpha$  0.05. Thus it can be said that there is a significant difference between anxiety levels before and after SEFT therapy. The result of the analysis of signed rank test ( $\alpha$  0,05) in the treatment group was obtained p value 0,000 then  $p < \alpha$  meaning there was significant difference of decrease of anxiety level after SEFT therapy. While in the

control group obtained p value 0.180 then  $p > \alpha$ , which means no significant difference in decrease in anxiety levels before and after SEFT therapy.

## **Discussion**

The results showed that there was an effect of SEFT on anxiety in patients with COPD. Based on the pre test and post test scores, most of the treatment groups experienced decreased anxiety levels after being given SEFT. The decrease in anxiety levels is characterized by decreased anxiety symptoms in most treatment group patients.

The results of this study are in line with other studies that show that SEFT has an effect on anxiety levels. According to Clond (2016) states that EFT techniques can reduce anxiety. The Brattberg (2008) study showed statistically significant results in terms of decreased pain, decreased anxiety and depression in patients with fibromyalgia receiving EFT. SEFT technique has the same basic principle as EFT. In the SEFT there is a spiritual aspect, incorporating prayer as part of therapy.

The prayer is contained in one of the stages of SEFT therapy, which is in the Set-Up stage which contains a neutralizing prayer that is useful for "Psychological Reversal", it affects psychological health (raises hope, fortitude, and wisdom) and on the social aspect of neutralizing emotions and minimizing anxiety. Along with the prayer (tune-in phase) tapping is done. In this process occurs the process of neutralizing negative emotions or physical pain. According to Swingle et al. (2004) Tapping reduces the frequency of brain waves associated with stress or strengthening associated with relaxation, as well as generating other useful physiological changes (Church, 2013).

Tapping is a light tap with two fingertips at a certain point in the body and if knocked several times will have an impact on the neutralization of emotional distress or perceived pain (Banerjee, Puri and Luqman, 2015). The point contained in the EFT is a point based on the acupuncture point. In acupuncture, signals are sent directly to the amygdala and other brain structures in the limbic system that process fear. This discovery is also reinforced by Fang who claimed that acupuncture can create widespread deactivation in the limbic system-the neocortical paralimbic (Church, De Asis and Brooks, 2012).

SEFT focuses on five things, namely belief, sincerity, solitude, resignation, and gratitude. It is very influential in reducing the level of anxiety. When a person feels

anxious then the body system will work by increasing sympathetic nervous work in response to stress. The sympathetic nervous system works through the activation of the adrenal medulla to increase the release of epinephrine, norepinephrine, cortisol and decrease nitric oxide. This situation will cause changes in body response such as increased heart rate, breathing, blood pressure, blood flow to various organs increased as well as increased metabolism. To inhibit sympathetic nerve work can be done by increasing the activity of the parasympathetic nerves to generate a relaxation response.

The relaxation response induced by the parasympathetic nerves works by stimulating the adrenal medulla to decrease the release of epinephrine, norepinephrine, cortisol and increase nitric oxide. This situation will cause changes in body response such as decreased pulse rate, blood pressure, oxygen consumption, body metabolism, lactate production and a person feeling comfortable. Relaxation techniques performed with spirituality techniques can generate a relaxation response that can reduce anxiety.

In the treatment group most patients decreased anxiety levels. This can happen because in SEFT there is tapping technique. The knocks made will stimulate the "electrically active cells" as the active centers consisting of a collection of active cells that exist on the surface of the body. Tapping will cause the excitement of a transduction signal that occurs in the biological process due to stimulation at the main point. The transduction signals will then stimulate the pituitary gland to release the hormone endorphine, the hormone will provide a calming effect, with a relaxed state makes the patient's anxiety level decrease.

The control group included seven patients with HARS impairment, four of whom had a good educational background, allowing patients to respond to anxiety well. According to Kaplan and Sadock (1997) states that a low level of education in a person will cause the person more easily experience anxiety and if the higher level of education a person the lower the level of anxiety. A high level of education in a person will form an adaptive pattern of anxiety, as it has a coping pattern for something better. So the higher the level of one's education the more knowledge it has and the easier the process of receiving information. Then, anxiety related conditions suffered can be received well. In addition, some patients also said they did not have a history of other illnesses suffered so that patients feel no complication of the disease that could worsen his health condition.

## Conclusion

SEFT therapy can reduce the anxiety level of COPD patients, in general respondents are able to overcome the "psychological reversal" and because of the influence of "electrical active cells". Based on the results of this study, SEFT may be recommended as an adjunctive therapy for COPD patients in order to reduce anxiety levels.

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