

**THE EFFECT OF SPIRITUAL EMOTIONAL FREEDOM
TECHNIQUE THERAPY ON ANXIETY AMONG THE CORONARY
HEART DISEASE PATIENT UNDERGO PERCUTANEOUS
CORONARY INTERVENTION**

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ABSTRACT

One of the management of coronary heart disease is percutaneous coronary intervention. Percutaneous coronary intervention often causes anxiety in coronary heart disease. Anxiety in coronary heart disease will undergo percutaneous coronary syndrome must intervene because it can have adverse effects such as unstable hemodynamic status. This study aims to determine the effects of SEFT in reducing anxiety in patients with coronary heart. This research used a design of pre-experimental quantitative method with a one-group pre-post test design approach. This research used a saturated sampling method with 30 respondents and was conducted in dr. Moewardi Hospital. SEFT was given to the respondents 15 minutes before percutaneous coronary intervention do. The anxiety of the patient was measured before and after SEFT. Anxiety assessed using the HARS questionnaire. HARS questionnaire has a score of 0-56. The results of this study are the mean score of anxiety decreasing from 28.50 to 20.60 after being given the SEFT intervention. The dependent t-test showed there is an effect of the application of SEFT therapy, it reduces anxiety in coronary heart patients who would undergo percutaneous coronary intervention with a p-value of 0.000. The application of Spiritual Emotional Freedom Technique as an alternative to psychotherapy intervention can prevent or reduce anxiety in coronary heart patients who will undergo percutaneous coronary intervention.

Keywords: *anxiety, coronary heart disease, percutaneous coronary intervention*

Introduction

Coronary heart disease occurs when there is a plaque accumulation in the coronary arteries, it causes vasoconstriction. This condition causes by several factors such as an unhealthy lifestyle, unhealthy food, smoking, obesity, genetic factor, age, and other comorbidities [1]. World Health Organization (WHO) states that 9.4 million deaths, 45% caused by coronary heart disease. WHO also predicts this number will increase until 2030 [2], the prevalence of coronary heart disease in Indonesia reaches 1.5% of all ages. A survey from Sample Registration System (SRS) stated that the frequency of coronary heart disease reached 12.9% of the total mortality rate [3]. One of the management of coronary heart disease is percutaneous coronary intervention. The percutaneous coronary intervention aims to improve narrowing and blockage of the coronary arteries [4]. This intervention expects to reduce the risk of recurrence so that the health quality of coronary heart disease can increase [5].

Percutaneous coronary intervention often causes anxiety in coronary heart disease and anxiety is caused by fear, worry, and panic if something happens during the percutaneous coronary intervention [6]. Anxiety in coronary heart disease will undergo percutaneous coronary syndrome, and it must intervene because it can have adverse effects such as unstable hemodynamic status, metabolic disorders, inadequate tissue perfusion, and disrupted blood supply. These conditions affect succeeding percutaneous coronary intervention [7]. Interventions that can reduce coronary heart disease anxiety who will undergo percutaneous coronary intervention divide into two, pharmacological and non-pharmacological interventions. The non-pharmacological intervention that we can do is Spiritual Emotional Freedom Technique (SEFT). Spiritual Emotional Freedom Technique (SEFT) is an intervention combination of the energy body system and spiritual healing using the tape method at a certain point. The principle of SEFT therapy is more or less as same as acupuncture and acupressure. All three seek to stimulate key points along the twelve body energy pathways. Compared to acupuncture and acupressure, the technique of SEFT is spiritual and safety, because SEFT only uses tapping [8]. SEFT is a combination technique of the energy body system and spiritual healing using the tapping method at particular points on the body. SEFT intervention is safety, easy, fast, and simple intervention for reducing anxiety [9].

Scientific research of SEFT has been carried out in Indonesia by Bakara, et al. In this study, SEFT was used to reduce anxiety and depression with acute coronary syndrome. The results showed a significant difference between the average anxiety level of the control group and the intervention group after the intervention, the z value was -5.639, and the p-value was <0.05. Based on this, it showed that, there is an effect of SEFT intervention reducing anxiety in acute

coronary syndrome patients. Previous research has shown that SEFT can reduce anxiety. This research supports the previous research that SEFT intervention can reduce depression, anxiety, and stress in non-percutaneous coronary intervention in coronary heart disease. It proves by a p-value of 0.001 (<0.05) [10]. In another study, Masyitah explained that the application of SEFT can reduce anxiety in hypertension patients, with a p-value of 0.001 (<0.05) [11]. Therefore, researchers are interested in conducting research related to SEFT on coronary heart disease patients who will undergo percutaneous coronary intervention. The goal is patient does not experience anxiety. So, the success of the percutaneous coronary intervention program is maximum.

Method

This study used a pre-experimental design with a one-group pretest-posttest design. There are two variables of this study, namely the independent variable and the dependent variable. The independent variable of this study is SEFT then the dependent variable is the anxiety level of patients with coronary heart disease who will undergo percutaneous coronary intervention. The respondents of this study are patients with coronary heart disease who will undergo percutaneous coronary intervention in Dr. Moewardi Hospital. The purpose of this study is to reduce the anxiety of patients with coronary heart disease who will undergo percutaneous coronary intervention, the sample is obtained based on inclusion and exclusion criteria. The inclusion criteria were coronary heart disease patients who never had experience; patients who do not have moderate, severe anxiety, panic; and conscious patients. The exclusion criteria were coronary heart disease patients who give anti-anxiety medicine and patients who failed to do percutaneous coronary intervention due to certain conditions. The subject of this study used a non-probability sampling technique with a saturated sampling method. There were 30 respondents in this study.

This study only had one group that gave the SEFT intervention. SEFT intervention gave to respondents before percutaneous coronary intervention did for 15 minutes. It did measure the anxiety of patients before and after the SEFT application. It was measured using the Hamilton Rating Scale for Anxiety (HARS) questionnaire. The HARS questionnaire tested for validity and reliability with result r count = 0.57–0.48 and r table = 0.349. Ethical considerations of this study have received approval from the Health Research Ethics Commission of RSUD. All respondents have provided information related to the research process. In addition, the respondents have asked to sign a consent form. Statistical analysis research of this research used a Dependent t-test.

Result and Discussion

The result of this study consists of univariate and bivariate analysis

1. The Result of Analysis Univariate

a. Table 1. Frequency Distribution of Respondents

Characteristics	Frequency	Percentage (%)
Age		
35-59	26	86.7
>59	4	13.3
Gender		
Man	24	80
Woman	6	20
Education		
No school	2	6.7
Elementary School	7	23.3
Junior High School	6	20
Senior High School	8	26.7
College	7	23.3

Based on table 1, we know that the most respondents are 39-59 years which is 26 respondents (86.7%), with the gender domination is male with 24 respondents (80%), and education domination is senior high school with 08 respondents (26.7%).

b. Table 2. The Average score of anxiety before and after Spiritual Emotional Freedom Technique Therapy

	minimum	maximum	Average \pm SD
Pretest	21	36	28.50 \pm 4.28
posttest	16	29	20.60 \pm 3.29

Table 2 shows that the average score of anxiety of the respondent after SEFT intervention is lower than the previous score. It showed that SEFT is proven can reduce anxiousness. Some patients are with coronary heart disease have experienced anxiety during percutaneous coronary intervention. The emergence of fear can cause by various things, such as pain anxiety, environmental changes of the hospital, lack of knowledge about procedures, and the threat of death [12][13]. Physiologically, it makes the hypothalamus activate the endocrine system, especially releasing the hormone Corticotropin-Releasing Hormone (CRH). Corticotropin-

Releasing Hormone is responsible for secreting Adrenocorticotropin Hormone (ACTH) through the anterior pituitary gland. ACTH increasing can increase the secretion of the hormone glucocorticoid and cortisol. These hormones can give negative feedback that stimulates the hypothalamus to secrete the Thyrotropic Hormone (TH) and Thyroxin Hormones. The increasing of thyroxin hormone can cause the changing of the hemodynamic status of the patients, such as changing in increasing heart rate, respiratory rate, Basal Metabolic Rate (BMR), blood pressure, free fatty acids, and anxiety [14]

2. The Result of Analysis Bivariate

Table 3. The Statistical Result Test

Anxiety	Average	P-value
Pretest	28.50	0.000*
posttest	20.60	

Based on the analysis result, the anxiety value before being given SEFT therapy was 28.50 while after being given SEFT therapy was 20.60, results of the statistical test are gotten t- test obtained a p-value of 0.000. Based on this result, it can conclude that there is an effect of SEFT therapy on anxiety in a patient with coronary heart disease undergoing percutaneous coronary intervention, comparing to previous studies that EFT administration can affect the anxiety level of patients undergoing percutaneous coronary intervention, with a difference score of 2.883 with a p-value of 0.001 [15]. Anxiety is an excessive negative emotion. One of the interventions that can reduce anxiety is SEFT. SEFT is a psychotherapeutic intervention that can reduce anxiety through three stages. These are, set up, tune in, and tap. The setup stage is to pray to God sincerely, surrender, and be sincere with whatever will happen. In this stage, the patient is led to placid the conditions and take action. The Tune stage is where the patient is asked to feel the pain is experienced and train the pain into the mind to surrender to God. Tapping is tapping on the energy points of the body meridians and setting up of giving positive affirmations to the patient. The combination of setup, tune in, and tapping expects to make the patient calmer. So, it stimulates the hypothalamus to produce the hormone Corticotropin- Releasing Factor (CRF). The increasing of CRV hormones production can reduce the hormone ACTH so that cortisol secretion decreases. When the cortisol hormone decreases, the body will reduce anxiety levels and slowly release negative emotions [16].

In addition, the application of SEFT in coronary heart disease patients who will undergo percutaneous coronary intervention is to maintain hemodynamic status. SEFT can prevent sympathetic and parasympathetic nervous system activity. This condition also averts the secretion of epinephrine and norepinephrine in the blood. It can stabilize the hemodynamic of patient status as stability of blood pressure, pulse, prevents bronchial dilatation, and prevents increased mental activation. SEFT also includes prayer activities. Prayer is part of surrender oneself to God. With this recognition, a sense of comfort and security will arise. The prayer has functions in lowering blood pressure, respiratory rate, heart rate, blood pressure, and anxiety. The tapping stage on the SEFT can stimulate the secretion of the hormone endorphins. The role of endorphins at the synapse of nerve cells can decrease pain sensation and psychological symptoms of anxiety. The endorphin hormone is a neurotransmitter that resembles morphine. This hormone is produced naturally by the body and has specific binding receptors in the brain. When the patient is given SEFT, especially in the tapping stage, endorphins will bind to opioid receptors in neurons. This condition can inhibit the extrication of neurotransmitters and ultimately block pain signals to the brain. When the pain decreases of the patient, the anxiety will also decrease [17].

Conclusion and Suggestion

Based on the study, SEFT can reduce anxiety in a patient with coronary heart disease who undergo percutaneous coronary intervention with a difference score of 7.9 and the results of the dependent t-test test obtained a p-value of 0.000. This shows that SEFT is proven to reduce anxiety in coronary heart disease patients who will undergo percutaneous coronary intervention. Since the results of this study demonstrate that SEFT can affect reducing anxiety, especially in coronary heart disease patients who undergo percutaneous coronary intervention, it is necessary to make policies and Standard Operational Procedure (SOP) so that they can apply in hospitals. The limitation of this study is the small number of samples so that future researchers are expected to increase the number of samples studied. In addition, future researchers are expecting to modify research on SEFT therapy and deepen the scope of their research by using SEFT therapy in other rooms or patients other than coronary heart disease patients who undergo percutaneous coronary intervention and expand the research area.

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