

Investigating The Effect of Teaching EFT Technique on Reducing Anxiety of Nurses During Corona Outbreak

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ABSTRACT--*Corona virus is a family of viruses that can cause a wide range of diseases. Nurses are among those who have to attend hospital settings due to their job nature and are exposed to suspected patients with Corona. so they experience high level of stress and anxiety. The "Emotional Freedom Technique" (EFT) is an alternative treatment for removing physical pain and emotional distress. This study was conducted to investigate the effect of using EFT on anxiety of nurses during Corona outbreak. The present study was a clinical trial. The statistical population of the present study included all nurses working in hospitals. The data collection tool consisted of two sections: demographic information and the Nursing Stress Scale NSS developed by Gray-Toft James Anderson. After entering the data into computer, they were analyzed through SPSS24 software and by paired T-tests and analysis of variance with repeated observations. It should be noted that the significance level of the study was considered at $P < 0.05$. The independent T-test showed that the mean work stress score in the case and control groups did not differ significantly before the intervention ($p = 0.14$). Analysis of variance with repeated observations showed that the mean work stress scores in the EFT training group were not the same in three times and there was a significant statistical difference among them ($P < 0.001$). Teaching EFT technique is very effective for nurses to reduce work stress by considering practical skills when exposed to stressful conditions.*

Keywords-- Anxiety, Emotional freedom technique, Nurse.

I. INTRODUCTION

Corona virus is a family of viruses that can cause a wide range of diseases, ranging from colds to severe acute respiratory symptoms. Coronaviruses, which can mainly cause disease in animals (and in humans in a few cases), can mutate and acquire new abilities and cause wide range of symptoms in animals (1). Some of the ways of transmitting this virus are 1- direct contact with the sick person (contact with infected secretions of the patient and through breathing) 2- indirect contact with objects that are infected with respiratory secretions or body secretions of the patient with coronavirus (2). Nurses are among those who have to attend hospital settings due to their job nature and are exposed to suspected patients with Corona. For this reason, they are more likely to be infected

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compared to other people. Despite making wide range of preventive measures and trainings provided for them, they experience high level of stress and anxiety and they show lower tendency to attend hospital, which can negatively affect their work. When a nurse is in the hospital, in addition to his or her physical activity, his or her mind is also involved. The mental state of a nurse plays a significant role in her practice. Anxiety begins when a nurse is doubtful on his or her ability to cope with the situations. This anxiety causes stress (3). Although anxiety in life is unavoidable and a level of anxiety is seen in everyone's life, sometimes its abnormal levels affect mental health and cause various symptoms such as muscle tension, increased heart rate and insomnia and cause social morbid fears (4). There are different ways such as relaxation, meditation, yoga and EFT for treatment and control of anxiety and stress (5). Stress coping ability is one of the most basic skills for nurses, and the EFT technique, which has recently been used as an effective tool in controlling it, can also be helpful in nurses. The "Emotional Freedom Technique" (EFT) is an alternative treatment for removing physical pain and emotional distress (6). In EFT, like acupuncture, the focus is on the meridian, or energy channels, to restore lost balance to the body's energy system. It is stated that this return of energy balance can reduce the symptoms formed as a result of experience or negative emotions. Chinese medicine believes that the body's energy flows in the "meridian" points. These passages help balance energy flow in the body and maintain good health, but anything that disrupts this balance can cause disease and boredom.

EFT eliminates negative emotions such as guilt, anger, depression, and sadness.

The EFT can be divided into five steps.

1-Identifying the problem

In order for EFT to work, you must first identify the problem or fear you have

2- Assessing the initial intensity of the problem

Rate your problem from 0 to 10 (10 is the most acute).

3- Establishing a phrase

Prior to tapping, you need to establish a phrase that explains your problem. In establishing these phrases, which should be done during tapping, consider the following cases:

- Acknowledge your problem
- Accept yourself despite your problem.

For example, you can establish such a phrase: Even though I have this [fear or problem], I deeply and completely accept myself." This is the most common phrase used in EFT.

"Although I am afraid of caring for a patient with Corona, I deeply and completely accept myself."

"Even though I am afraid of caring for a patient with Corona, I deeply and completely accept myself"

4-Tapping

In the "EFT" sequence of taps, you have to tap the 9-point terminals of the "meridian" points slowly, symmetrically on both sides of the body.

Karate chop: This point is located in the fleshy part of the outer edge of the hand, somewhere between the top of the wrist and the base of the little finger.

Top of head: If you connect one of your ear to the other ear with a line from the top of your head and draw another line from your nose to the back of your neck, the TH point will be exactly where the two lines intersect.

Eyebrows: This point is at the beginning of the eyebrows just above the side of the nose.

Side of the eye: This point is located on the bone of the outer edge of side of the eye.

Under the eye: This point is on the bone under the eyes about 5.2 cm below the pupil.

Under the nose: This point is located in a small area between the end of the nose and the top of the upper lip.

Chin: This point is not exactly on the chin, but between the chin cleft and the lower lip.

Beginning of collarbone: This point is at the intersection of the sternum, collarbone, and the first rib

Under the arm (UA): This point is about 10 cm lower than the underarm

Begin by tapping the karate chop point while simultaneously reciting your setup phrase three times. Then, tap each following point seven times, moving down the body in this ascending order:

- eyebrow
- side of the eye
- under the eye
- under the nose
- chin
- beginning of the collarbone
- under the arm

After tapping the underarm point, finish the sequence of taps at the top of the head point.

5- Reassessing the intensity of problem

At the end of your sequence, rate your intensity level on a scale from 0 to 10. Compare your results with your initial intensity level. If you haven't reached 0, repeat this process until you do (7).

Research has shown that in clinical trials, nurses are exposed to many stressful factors (8, 9). It has also been shown that nurses suffer from high work pressure and unknown factors in the clinical setting (10, 11). In addition to impairing the quality of service provided, anxiety in nurses can lead to wrong and painful procedures for the patient, reduce the speed of action in emergency care, transfer anxiety to the patient and his or her distrust, make the patient angry and his or her caregivers, and disrupt the order, and ultimately, it can lead to physical and psychological harm to the patient and damage to the nursing profession (12, 13) Control of anxiety in nurses during Corona outbreak by EFT can be effective. This study was conducted to investigate the effect of using EFT on anxiety of nurses during Corona outbreak.

II. METHODS

The present study was a clinical trial conducted with the aim of investigating the effect of EFT technique training on stress of nurses during the Corona outbreak. The statistical population of the present study included all nurses working in hospitals of Shiraz University of Medical Sciences with an employment history of 2-15 years. The data collection tool consisted of two sections: demographic information and the Nursing Stress Scale NSS developed by Gray-Toft James Anderson (1981) (14). The first section includes demographic information that includes age, gender, marital status, level of education, and employment history.

The Nursing Stress scale was developed by Toft Anderson in 1981 and is the first tool developed to assess nursing stress instead of overall work stress. This tool includes 34 items in 7 areas, including Death and Dying Patients (7 items), Conflict with Physicians (5 items), Inadequate Preparation (3 items), Lack of Staff Support (3

items), Conflict with Other Nurses (5 items), Workload (6 items), and Uncertainty Concerning Treatment (5 items). This tool is scored in a range from never stressful (score 1) to always stressful (score 4). The total score is between 34 and 136, which score equal to or lower than 68 indicates low stress, score 68-103 indicates moderate stress, and score equal to higher than 104 indicates higher stress. This scale is standard and has been used by various researchers, so it has the required reliability (15). The data were collected in such a way that first the scale were distributed among 200 qualified nurses and brief explanations were given about it and the way of its completing. Immediately after the completion of the explanations, the scale was completed and collected by the nurses. 80 nurses who were randomly selected based on the stress scale scores were randomly selected and evaluated by a clinical psychologist to determine if they met the diagnostic criteria of Corona stress according to DSM-IV. Then, they were randomly divided into two groups of case and control (each included 40 subjects). Then, a one-day 2-3-hour EFT training workshop was held for the case group (which was divided into two groups (each group included 20 subjects) to prevent overcrowded workshop. The study inclusion criteria included a complete answer to Toft Anderson NSS scale, willingness to participate in the project, participation in a training class, age range between 25-40 years and exclusion criteria included non-meeting above-mentioned inclusion criteria, participation in any stress control workshop, and taking any anti-anxiety drug. To collect data in this study, the Toft Anderson NSS scale was used in the pre-intervention and one and two months after the intervention. After entering the data into computer, they were analyzed through SPSS24 software and by paired T-tests and analysis of variance with repeated observations. It should be noted that the significance level of the study was considered at $P < 0.05$.

III. RESULTS

Demographic characteristics of the studied samples including age, gender, employment history, marital status, and education are presented in (Table 1).

Table 1: Demographic characteristics of samples

Variables		Case group	control group	P .V
Age		9.29	7.30	P=0.5
Gender	Female	38	36	
	Male	2	4	
Employment history		5.10	2.11	
Marital status	Single	19	17	
	Married	21	23	
	Other	0	0	
education	Bachelor	39	40	
	Higher than bachelor	1	0	

Results show that there is no significant statistical difference between the two groups in terms of demographic characteristics ($P = 0.5$). The independent T-test showed that the mean work stress score in the case and control groups did not differ significantly before the intervention ($p = 0.14$). Analysis of variance with repeated

observations showed that the mean work stress scores in the EFT training group were not the same in three times and there was a significant statistical difference among them ($P < 0.001$). It also showed that the mean work stress score in this group after intervention was significantly lower than that before the intervention and two months later, it was less than that one month after the intervention. The results also showed that in the control group, there was no statistically significant difference in the mean scores of work stress before and one month and two months later the intervention ($p = 0.11$) (Table 2).

Table 2. Analysis of variance test

group variable	EFT group	Control group	inter-group PV
Stress score before intervention	118	115	p = 0.14
Stress score one month after intervention	89	117	P<0.001
Stress score two months after intervention	65	113	P<0.001
intra-group PV	P<0/001	P=0.11	

IV. DISCUSSION

The aim of this study was to investigate the effect of EFT technique on work stress of nurses during the Corona virus outbreak. The results showed that the mean work stress score in the case group decreased significantly. Investigating the mean score of nurses' work stress before and after teaching EFT training to nurses who are providing services to patients during Corona virus outbreak showed that teaching EFT technique reduces nurses' stress. It can also be concluded that the mean work stress of nurses during outbreak of Corona virus before the intervention is high. However, the mean work stress score after the intervention indicates moderate work stress, which is the effect of teaching EFT technique on stress of nurses during Corona outbreak. Given significant difference between the mean work stress scores of nurses in the two groups of case and control before and after the intervention of EFT technique, these results indicate that two groups had same level of stress before the intervention and it was at an undesirable level. However, work stress score in the case group reduced after teaching EFT technique. Therefore, teaching EFT technique improved nurses' work stress during Corona virus outbreak. Also, work stress in the control group, which did not receive any intervention, did not change after 2 months. These results are consistent with the results of similar studies. EFT has been shown to have a positive effect on the process of overcoming stress and related symptoms such as poor sleep, fatigue and panic (16). Nelms showed that EFT treatments significantly reduced depression and anxiety scores among adults with mental disorders. There is some evidence that indicates EFT can reduce the level of cortisol in the body. Cortisol is a stress hormone that can play a major role in the development of many diseases, especially when its levels are elevated for a long time (17).

Another study found that EFT regulates stress hormones and lymphatic function and improves various neurological indicators in the field of general health. The epigenetic effects of EFT include the regulation of

immune genes and the degeneration of inflammatory genes (18). In a study conducted by Sebastian, the effectiveness of EFT on the treatment of post-traumatic stress disorder (PTSD) and related symptoms was proven. Since this treatment method uses positive emphatic phrases, its effect may be somewhat similar to traditional treatment of "conversational therapy". The mentioned study showed that after EFT, 60 percent of other participants did not experience PTSD attacks. Most of these improvements lasted at least 3 to 6 months (19). A number of studies have shown that EFT can help treat symptoms in people with tension headaches, fibromyalgia, chronic injuries, and many other types of pain (16, 20-22). The results of a study conducted by Church to investigate the impact of the EFT program on work stress and their work-life conflict indicated a significant reduction in work stress in the intervention group compared to the control group. Also, in the intervention group, work stress was reduced compared to that before the intervention. The results of the intervention show that with the reduction of work stress, the work-life conflict scores also decrease and there is a significant positive relationship between stress management and work-life conflict (23).

V. CONCLUSION

Emotional freedom technique (EFT) is a self-help technique that involves tapping the meridian points that are located in certain parts of the body. The use of stress management skills such as EFT in working and family life by nurses helps to better manage time, work and personal stress, set a proper diet, adopt better strategies to deal with in work and family settings, and balance the work and life. In general, the results of the studies show that teaching EFT technique is very effective for nurses to reduce work stress by considering practical skills when exposed to stressful conditions.

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