

## The Effect of Online-based Emotional Freedom Technique on the Blood Pressure during the Covid-19 Pandemic

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### ABSTRACT

Complications due to hypertension are dangerous. Therefore self-care management is needed. Freedom emotional technique (EFT) therapy is a non-pharmacological treatment that can help change blood pressure. During the Covid-19 pandemic, online EFT is the right solution. This study aims to determine the effect of online-based EFT on blood pressure during the Covid-19 pandemic. This research method uses pre-experimental, namely one group pretest and posttest design. The sample was selected using purposive sampling technique with a total sample of 50 respondents. The research location is Kalimeang village, Karangsembung Sub-district, Cirebon District, Indonesia. The research instruments used were observation sheets, sphygmomanometers, and stethoscopes. The data analysis used the Wilcoxon test. The results of this study indicated that online-based EFT therapy affected the change in blood pressure among patients with hypertension during the covid-19 pandemic. This research contributes to the reference of nursing practice by applying EFT therapy to patients to change their blood pressure with online treatment.

**Keywords:** EFT, Emotional Freedom Technique, Therapy, Online, Blood Pressure, Covid-19 Pandemic



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## 1. INTRODUCTION

In general, hypertension can be defined as a systolic pressure higher than 140 mmHg and a diastolic pressure higher than 90 mmHg (Cluver & Tong, 2021; Rayner et al., 2019). Human blood pressure naturally fluctuates throughout the day (Huart et al., 2019; Luo et al., 2019). High blood pressure becomes a problem if the blood pressure is persistent (Sharman et al., 2020; Tanveer & Hasan, 2019). This blood pressure strains the circulatory system and organs supplied by blood, including the heart and brain (Trangmar & González-Alonso, 2019).

Global Status Report on Noncommunicable Diseases 2014 data revealed the worldwide prevalence of high blood pressure (systolic and diastolic blood pressure equal to or higher than 140/90 mmHg) among adults aged >18 years was 22% (Organization, 2014). Hypertension is a silent killer wherein the symptoms vary among persons and are almost the same as the symptoms of other diseases (Corwin et al., 2021; Fatima & Mahmood, 2021). The estimated number of hypertension cases in Indonesia was 63,309,620 people, while the mortality rate in Indonesia due to hypertension was 427,218 deaths (Istiana et al., 2022).

Causal factors of hypertension include age, gender, history in the family, environment, obesity, smoking habit, lack of physical activity, and stress (Sari et al., 2021). Two double burdens of Indonesian health are health problems for the country. One highly prevalent disease that decreases the patient's quality of life is hypertension. Until now, hypertension is still a significant challenge in Indonesia.

There are two kinds of hypertension management: pharmacological (Al-Makki et al., 2022) and non-pharmacological (Mahmood et al., 2019; Verma et al., 2021). Non-pharmacological therapies do not

use drugs, including relaxation, exercise, massage, prayer, hypnotherapy, and others (Shrestha et al., 2020). One of the non-pharmacological is Emotional Freedom Technique (EFT) (Church et al., 2020; Eraydin et al., 2022; Souilm et al., 2022)..

EFT is a psychological therapy tool that can be used to get rid of negative emotions, such as upset and sadness (Thrisna Dewi et al., 2020). Scientists define EFT as a brilliant and simple method for relieving emotional feelings. This therapy is clinically effective in treating trauma and mild depression from dynamic sources, such as physical pain, headaches, and high blood pressure. Provide non-pharmacological nursing intervention using EFT that can be done by patients themselves to change their lifestyle and mindset, which in turn can prevent complications of hypertension. One of the complications concerned is congenital disease.

In the current situation of the Covid-19 pandemic, there is an increase in the stress level of everyone, especially patients with hypertension. The patient's anxiety and fear of COVID-19 when they visit the hospital, or CHC forces those hypertensive patients to choose to treat their disease at home. It is due to the issuance of a Large-Scale Social Restriction (PSBB) regulation applied by the government. Many works are restricted so that many workers are homed in and further experience economic problems. Thus, many people experience high levels of stress and emotional issues.

During the Covid-19 pandemic, direct therapy was complex. Citoni et al. (2022) researched the management of hypertension indirectly through telemedicine. Handoyo (2022) researched strategies for overcoming hypertension therapy by developing online-based psychology applications. During the Covid-19 pandemic, online-based indirect treatment is urgently needed and is still rare. The novelty of this study is combining EFT with online-based therapy to address changes in patients' blood pressure. This study aims to determine the effect of online-based EFT on blood pressure during the Covid-19 pandemic.

## 2. METHOD

This study was quantitative, with the independent variable of EFT therapy and the dependent variable of changes in blood pressure. The method used a pre-experimental design with a one-group design of pre-test and post-test (Hikhmat et al., 2022) to express causal relationships. Determination of the samples involved used a purposive sampling technique. It is a sampling technique carried out by a non-random sampling technique wherein the researcher determines the selection by determining unique characteristics of the study objectives. Thus, it is expected to be able to answer the research problem. The number of samples in this study was 50 respondents. Study instruments are tools to be used for data collection. Data collection tools in this study were emotional freedom technique SOP (standard operating procedure), Sphygmomanometer set to measure blood pressure, software/cellphone, and observation sheets. The data analysis used the Wilcoxon test.

## 3. RESULTS AND DISCUSSION

### 3.1 Univariate Analysis

**Table 1**

*Characteristics of Respondents Blood Pressure*

Treatment	Mean	Deviation Standard	Min - Max
Before EFT	1.505	71.87262	1.4 – 1.67
After EFT	90.6	53.54725	0 - 0

Based on table 1, it was shown that the mean blood pressure in the EFT group before the intervention was 1.505 and the mean blood pressure after EFT was 90.6.

**Table 2**

*Hypertension Classification at the Pre Test*

Category	Number	Percentage
Normal	-	-
Normal High	-	-
Stage 1 (Mild)	46	92
Stage 2 (Moderate)	4	8
Stage3 (Severe)	-	-
Stage 4 (Malign)	-	-

Based on table 2 regarding the pre-test results among patients with hypertension adopted from Dhingra et al. (2022) classification, it can be observed that most of the patients in this study, or as many as 46 (92%), were categorized in Stage 1 or mild hypertension and 4 patients (8%) were categorized in Stage 2 or moderate hypertension.

**Table 3**  
*Hypertension Classification at the Post Test*

Category	Number	Percentage
Normal	-	-
Normal High	-	-
Stage 1 (Mild)	17	34
Stage 2 (Moderate)	33	66
Stage3 (Severe)	-	-
Stage 4 (Malign)	-	-

Based on table 3 regarding the post-test results among patients with hypertension adopted from Dhingra et al. (2022) classification, it can be observed that most of patients in this study or as many as 17 (34%) were categorized as having High Normal Hypertension and 33 patients (66%) were categorized in Stage 1 or Mild Hypertension.

### 3.2 Bivariate Analysis

**Table 4**  
*Normality Test Results for Pre Test and Post Test with One-Sample Kolmogorov-Smirnov Test*

Normality Test	Statistic	Df	Sig
Pre-test	0.426	50	0.000
Post-test	0.405	50	0.000

Table 4 shows the researcher used the Kolmogorov-Smirnov test to test the normality of the data since the number of samples was 50. Therefore the researcher might only observe the probability value (p-value) in the Kolmogorov-Smirnov table.

Based on the table 4, it was revealed that the significance value of Asymp.Sig (2-tailed) between the pre test and post test data for Emotional Freedom Technique therapy was 0.000 or lower than 0.05. According to the results of the Kolmogorov-Smirnov normality test above, it can be concluded that the data were not normally distributed. Because the pre-test and post-test data are not normally distributed, the Wilcoxon test can be used to test the hypothesis. Table 5 below is the results of the Wilcoxon test.

**Table 5**  
*Hypothesis Test Results with the Wilcoxon Test*

Measurement Scale	Group	N	Mean	Z	P-value
Blood Pressure	Pre EFT	50	1.505	-3.220	0.001
	Post EFT	50	90.6		

Based on the table 5, it was revealed that the mean difference between Pre test and Post test Blood Pressure was 1.505 - 90.6. This indicated that there was a significant change in the mean blood pressure between before and after intervention with Asymp.Sig. (2-tailed) or p-value of 0.001. Since the value of 0.001 was less than  $<0.05$ , it can be concluded that "Ha was accepted". Thus, there was an effect of online-based emotional freedom therapy on the change in blood pressure among patients with hypertension during the Covid-19 pandemic.

### 3.3 Discussion

One of the non-pharmacological is the Emotional Freedom Technique (EFT) (Church et al., 2020; Eraydin et al., 2022; Souilm et al., 2022). Table 5 demonstrates how EFT can impact patient blood pressure alterations. According Isworo et al. (2019) studies on older patients, EFT treatment can reduce blood pressure. Purwitasari et al., (2021) also said that EFT therapy might be utilized as an alternative treatment for patients with hypertension and anxiety experienced by the elderly through a literature review research in 20 articles.

Anxiety in carrying out life occurred during Covid 19 (Gangopadhyay, 2021), including nursing activities. Online therapy is the best solution during Covid-19 (Perdana et al., 2021). This statement is proven based on table 5 that EFT therapy, carried out online, can be used as a solution when there are restrictions on human movement during the Covid-19 period. This study's results prove that implementing online-based EFT therapy is the right solution when the patient's movements are limited, and the patient does not allow to go to the therapy center or hospital every day. In addition, patients and nurses can save costs and save time.

#### 4. CONCLUSION

The results of this study indicated that online-based EFT therapy affected the change in blood pressure among patients with hypertension during the covid-19 pandemic. This research contributes to the reference of nursing practice by applying EFT therapy to patients to change their blood pressure with online treatment.

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