

## THE EFFECT OF EMOTIONAL FREEDOM TECHNIQUES (EFT) ON ANXIETY LEVELS IN ELDERLY INDIVIDUALS FACING THE RISK OF COVID-19 TRANSMISSION

Shinta Silaswati<sup>1\*</sup>, Rina Rosdiana<sup>2</sup>, Amzal Mortin Andas<sup>3</sup>, Robert Priharjo<sup>4</sup>

<sup>1</sup>Hermina Institute of Health Sciences, Jakarta, Indonesia

<sup>2,3</sup>Faculty of Health and Pharmacy, Bani Saleh University

<sup>4</sup>Faculty of Health, Medicine and Social Care, Anglia Ruskin University-UK

\*Corresponding Author: shintha16@gmail.com

### Abstract

**Background:** Ageing is a natural process characterised by physical, social, spiritual, and psychological changes. Among the psychological changes experienced by elderly individuals are irritability, hypersensitivity, and anxiety, which can lead to fear and worry, particularly during the COVID-19 pandemic, as older adults are highly susceptible to the virus. To address this, Emotional Freedom Techniques (EFT) have been proposed as a therapy to alleviate anxiety and help individuals better manage their emotions. **Objective:** This study aims to assess the effect of EFT on anxiety levels among elderly individuals facing the risk of COVID-19 transmission. **Methods:** A pre-experimental design with pre-test and post-test without control was conducted on 40 respondents. **Results:** Bivariate analysis showed a significant reduction in negative emotions and anxiety levels following the intervention, with pre-intervention  $p$ -value = 0.032 and post-intervention  $p$ -value = 0.020 (both  $p < \alpha$ ). The odds ratios before and after the intervention were 6.333 and 8.550, respectively. **Conclusion:** EFT significantly reduced negative emotions and anxiety levels among the elderly, transitioning from severe to moderate anxiety. EFT is an effective non-pharmacological intervention for Ageing anxiety in older adults.

Keywords: COVID-19, Elderly, Emotional Freedom Techniques, Anxiety Levels.

### 1. INTRODUCTION

Ageing is an inherent process involving physical, mental, social, and spiritual transformations. Physiologically, it is associated with wrinkled skin, greying hair, diminished vision and hearing, fatigue, and reduced mobility (Selvita, 2019). Socially, older individuals may experience heightened emotional sensitivity, social withdrawal, and increased dependency, which can resemble behaviours typically seen in children. Psychologically, the ageing process may enhance irritability, anxiety, fear, loneliness, and declining self-confidence (Selvita, 2019).

Anxiety is often described as a pervasive and generalised sense of unease and helplessness. In elderly individuals, anxiety can worsen pre-existing health issues, including hypertension and a weakened immune system, adversely affecting their overall health. Common manifestations of anxiety include excessive worry, fear of future events, irritability, and panic episodes. The COVID-19 pandemic has exacerbated these issues, with older adults being more susceptible to severe consequences of the virus (Ardias, 2013).

COVID-19, caused by the SARS-CoV-2 virus, presents with symptoms such as fever, cough, and shortness of breath, which can develop into severe respiratory distress or even lead to death. The primary mode of transmission is through respiratory droplets and direct contact (Kemenkes RI, 2020). Addressing anxiety within the elderly population is of significant importance, and Emotional Freedom Technique (EFT), a technique based on simplified acupuncture principles, utilises tapping on meridian points and has demonstrated potential in alleviating anxiety and enhancing emotional regulation (Thahir, 2014). This study investigates the effects of EFT on the anxiety levels of elderly individuals residing in Bekasi, Indonesia, during the COVID-19 pandemic.

## 2. METHODS

This study utilised a pre-experimental design without a control group, incorporating pre-test and post-test assessments. The research was carried out in July 2021, targeting elderly residents of Bekasi City. Participants were selected through consecutive sampling, adhering to specific inclusion and exclusion criteria, resulting in a sample of 40 respondents. The independent variable was negative emotions, while the dependent variable was anxiety levels. Emotional assessment was conducted using a Visual Analog Scale, and anxiety levels were measured through a Likert-scale questionnaire, both of which were administered online via Google Forms prior to and following the EFT intervention. Data analysis involved univariate and bivariate techniques, with chi-square tests used to determine statistical significance.

## 3. RESULTS

**Table 1: Demographic Characteristics of Elderly Respondents on Pre-elderly and Elderly in Bekasi City**

Demographic Characteristics	Frequency Distribution (n=40)	
	F	%
<b>Age Group</b>		
Pre-elderly (45–59 years)	38	95
Elderly (60–69 years)	2	5
<b>Gender</b>		
Male	13	32.5
Female	27	67.5
<b>Education</b>		
Schooled	39	97.5
Unschooled	1	2.5
<b>Employment Status</b>		
Employed	16	40
Unemployed	24	60

Based on the results in Table 1, the majority of respondents were pre-elderly (45–59 years) with 38 respondents (95%), female (27 respondents, 67.5%), had formal education (39 respondents, 97.5%), and were unemployed (24 respondents, 60%).

**Table 2. Distribution of Emotional States Before and After Emotional Freedom Techniques (EFT) Intervention on Pre-elderly and Elderly in Bekasi City**

Emotional State	Frequency Before (n=40)	% Before	Frequency After (n=40)	% After
Positive ( $\leq 6$ )	18	45	29	72.5
Negative ( $> 6$ )	20	55	11	27.5

Table 2 shows that the majority of respondents exhibited negative emotions before the EFT intervention (20 respondents, 55%). Post-intervention, the majority shifted to positive emotions (29 respondents, 72.5%).

**Table 3.** Distribution of Anxiety Levels Before and After EFT Intervention on Pre-elderly and Elderly in Bekasi City

Anxiety Level	Frequency Before (n=40)	% Before	Frequency After (n=40)	% After
No Anxiety	0	0	12	30
Mild Anxiety	12	30	7	17.5
Moderate Anxiety	0	0	21	52.5
Severe Anxiety	28	70	0	0

Table 3 indicates that prior to the EFT intervention, 70% of respondents experienced severe anxiety. Following the intervention, 52.5% of respondents experienced moderate anxiety, and 30% reported no anxiety.

**Table 4.** Statistical Analysis of Emotional States and Anxiety Levels Before EFT on Pre-elderly and Elderly in Bekasi City

Emotional State	Anxiety Level	OR	95% CI	p-Value
Positive	No Anxiety	6.333	1.373-29.205	0.032
Negative	Moderate/Severe	-	-	-

Table 4 highlights the significant association between positive emotional states and reduced anxiety levels before the intervention (OR = 6.333, p = 0.032).

**Table 5.** The Effect of Emotion and Anxiety Levels After Emotional Freedom Techniques (EFT) Intervention on Pre-elderly and Elderly in Bekasi City

Emotion After	Anxiety Level After		Total	OR (95% CI)	P-Value
	Not Anxious	Anxious			
Positive	19	10	29	8,550 (1,542-47,408)	0,020
	2	9	11		
Total		21	19	40	

Table 5 presents the statistical test results, which indicate that after the Emotional Freedom Techniques (EFT) intervention, pre-elderly and elderly individuals with positive emotions largely did not experience anxiety, with 19 respondents reporting no anxiety. In contrast, the majority of those with negative emotions (9 respondents) experienced anxiety. The statistical analysis of the effect of emotions and anxiety levels following the EFT intervention in pre-elderly and elderly individuals in Bekasi City, using the chi-square test, yielded a p-value of 0.020 ( $p < \alpha$ , 0.05), leading to the rejection of the null hypothesis ( $H_0$ ). This demonstrates a significant effect of emotion and anxiety levels after the EFT intervention. The analysis yielded an Odds Ratio of 8.550 (95% CI: 1.542-47.408), which indicates that pre-elderly and elderly individuals with positive emotions are 8.550 times more likely to be free of anxiety compared to those with negative emotions after the intervention.

For the 11 respondents whose emotions remained negative following the EFT intervention, another session was administered on August 26, 2021, at 10:00 AM to further reduce their emotional intensity. As a result, 8 respondents showed a reduction in emotional scale to a level of 1-2, while 3 respondents continued to report an emotional scale of 3-4. These 3 respondents were referred to a more specialised practitioner according to their needs.

The average emotional scale prior to the intervention was 6, and after the intervention, it was reduced to an average of 2, with a standard deviation of 0.25. This suggests that the anxiety levels of respondents concerning the risk of COVID-19 transmission before the EFT intervention were associated with negative emotions ranging from 6.25 to 5.75. Post-intervention, negative emotions decreased to a range of 2.25 to 1.75, demonstrating improved emotional control and a shift towards more positive emotional states. Positive emotions enabled respondents to better manage and cope with the situations they encountered, thus effectively controlling their anxiety in relation to the risks of COVID-19 transmission.

### 3.1 Discussion

The results of the study revealed that the most common age group among the respondents was 45-59 years, comprising 95% (38 respondents). This finding aligns with Syamson (2021), which indicated that elderly individuals over the age of 57 exhibited higher levels of anxiety regarding the risk of contracting the Coronavirus. Ageing, characterized by a decline in strength and increased vulnerability to various diseases, environmental changes, and mobility loss, is often accompanied by psychosocial disorders, such as anxiety (Aru et al., 2009). Anxiety is defined as a vague fear unsupported by the situation itself (Tamher & Noorkasiani, 2009, in Subandi et al., 2013).

The high anxiety levels among elderly individuals over 57 years of age can be attributed to the physical vulnerabilities they experience, which heighten concerns about contracting COVID-19. Furthermore, the alarming information regarding the high number of COVID-19-related deaths among the elderly likely exacerbated these fears. The study also showed that elderly women were more inclined to follow Emotional Freedom Techniques (EFT) to manage the risk of COVID-19 transmission, with 67.5% (27 respondents) being female. According to Sutjiato et al. (2015), women are more prone to feelings of anxiety, guilt, and emotional responses when facing challenges. Videback (2008) further asserts that women experience anxiety disorders more frequently than men due to their heightened sensitivity to emotions and greater attention to life events, while men tend to have a more general perspective.

The researcher posits that women are more likely to consider various factors when confronted with situations, particularly during the COVID-19 pandemic. Women, especially mothers or grandmothers, often worry about their own health and the potential burden on their children, which contributes to their heightened anxiety. Regarding education, 97.8% (39 respondents) had completed formal education, which supports the findings from Syamson (2021) that elderly individuals with higher education levels tend to experience higher anxiety levels about COVID-19 transmission.

Kaplan and Sadock (2010) and Stuart (2013) suggest that anxiety can be influenced by both external factors, such as threats to physical integrity, and internal factors, such as age, stress, gender, and education. The researcher believes that elderly individuals with higher levels of education, who can process information more effectively, are more likely to experience heightened anxiety upon realising the significant risks posed by COVID-19 due to their more vulnerable immune systems. Furthermore, 60% (24 respondents) of participants were not employed, which aligns with findings (Fa'airin, 2021) stating elderly housewives reported greater anxiety about contracting the virus than those who were still working outside the home.

Kaplan and Sadock (2010) and Stuart (2013) further categorised factors influencing anxiety as internal and external. Work, as a physical activity, is an external factor that can influence anxiety. Engaging in physical activities, such as working or performing regular tasks, provides the elderly with meaningful social interactions, which can help alleviate anxiety. The analysis revealed that prior to undergoing EFT, the majority of respondents experienced negative emotions, with 55% (20 respondents) reporting negative emotional states. This is consistent with the study (Palgi et al., 2020) which found that health anxiety among the elderly during the COVID-19 pandemic was linked to elevate anxiety levels.

Anxiety, defined as emotional upheaval in response to threats (Tamher & Noorkasiani, 2009, in Subandi et al., 2013), was prevalent among elderly individuals due to the anxiety triggered by the perceived threat of COVID-19 transmission. After undergoing EFT, the respondents showed a decrease in negative emotions, with 72.5% (29 respondents) reporting positive emotions. This suggests that EFT helped the elderly manage their negative emotions and cope with the threat of COVID-19 transmission. This finding aligns with Palgi et al. (2020), who indicated that health anxiety among the elderly is associated with elevated anxiety levels during the pandemic.

The study further indicated that the most common psychological problems among the elderly are anxiety, loneliness, and sadness (Tamber & Noorkasiani, in Heningsih, 2014). From the analysis, it appears that EFT therapy can reduce anxiety levels in the elderly by helping them regulate their emotional states. This is beneficial for their mental and emotional well-being, particularly in coping with the risks associated with COVID-19 transmission.

Some elderly individuals exhibited positive emotions, before the EFT intervention, and the majority did not experience anxiety or only experienced mild anxiety (9 respondents each). However, those with negative emotions predominantly experienced anxiety (19 respondents).

EFT, which works by alleviating both physical and emotional pain (Thahir, 2014), seems to be effective in reducing anxiety levels by promoting positive emotions. The researcher suggests that EFT helps elderly individuals release energy through its meridian-point technique, which focuses on negative thoughts in the brain and subsequently releases them (Bougea, 2013), effectively reducing anxiety.

#### 4. ETHICAL CONSIDERATIONS

This study obtained ethical approval from the Ethics Committee of Bani Saleh College of Health Sciences on July 20, 2022 No. EC.135/KEPK/STKBS/VII/2022. Participants were informed of the study objectives, methodology, risks, and benefits. Subjects who agreed to complete the questionnaire implied that they agreed to participate in the study. Participants' confidentiality was maintained and the data will not be used for any other purposes beyond this study.

#### 5. CONCLUSION

The majority of respondents in this study were aged between 45-59 years, female, with schooling education, and employed. Prior to the Emotional Freedom Techniques (EFT) intervention, most of the respondents reported experiencing negative emotions. However, following the intervention, a majority demonstrated positive emotional changes. In terms of anxiety, the respondents initially exhibited severe anxiety, but after undergoing EFT, their anxiety levels decreased to moderate. These findings suggest that the application of EFT has a significant impact on reducing anxiety levels in elderly individuals who are confronted with the risk of COVID-19 transmission. This highlights EFT's potential as an effective intervention for managing anxiety in elderly populations during times of heightened stress.

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