ScieniQ Publishers

Journal of Neurology and Neuroscience Research

Research Article

Assessing Efficacy of Emotional Freedom Technique on Stress, Anxiety, Depression, and Short-Term Memory in Indian Adults

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Received: 01 July 2025
Accepted: 07 July 2025
Published: 15 July 2025

Abstract

According to the World Health Organization (WHO), Major Depressive Disorder (MDD) is the fourth leading cause of mental disability worldwide. The World Health Organization (2017) estimated that 7.5% of the Indian population experiences either major or minor mental health conditions requiring professional intervention [55]. The National Mental Health Survey of India (2015-16) similarly found that one in every 20 individuals suffers from depression, with a higher prevalence among women aged 40–49 years [39]. Emotional Freedom Technique (EFT), a growing mind-body therapeutic approach, has gained increased recognition for its effectiveness in addressing psychological concerns. The present study, inspired by an Australian study by Hannah Chatwin et al., investigates the effectiveness of EFT in reducing symptoms of stress, anxiety, and depression, while also improving short-term memory among Indian adults [13]. 12 participants aged 40–50 from Ahmedabad, India, reporting complaints of anxiety, low mood, and forgetfulness, were selected for the study. They were assessed using the Depression, Anxiety, and Stress Scale (DASS-21), the Digit Span Test and a visual recognition test to measure short term memory (STM) [27, 34, 44]. Participants underwent an 8-week EFT intervention, consisting of one session per week. Pre- and post-intervention assessments indicated clinically significant improvements in stress, anxiety, depression, and both auditory and visual short-term memory. These findings align with those of Chatwin et al. [13] and support the growing body of evidence that suggests EFT is a promising and effective tool for managing emotional distress and enhancing cognitive functioning among Indian adults.

Keywords: Emotional freedom technique (EFT), Stress, Anxiety, Depression, Short-term memory (STM)

Introduction

Mental health challenges such as stress, anxiety, and depression have become pervasive in modern society, often leading to significant impairments in an individual's daily functioning and cognitive performance. Untreated depression and long-term anxiety can cause problems like confusion, forgetfulness, and trouble focusing, symptoms that directly affect short-term memory and clear thinking [45].

In the Indian context, the burden of mental illness is both severe and under-acknowledged. A World Health Organization survey identified depression as the fourth leading cause of mental disorder globally, with an alarming 7.5% of Indians suffering from major to minor mental illnesses [55]. Complementing this data, the National Institute of Mental Health and Neurosciences reported that every sixth Indian requires some form of mental health support, and 1 in every 20 individuals suffers from depression, particularly women aged between 40 and 49 years [39]. Despite these statistics, mental health support remains largely inaccessible or socially discouraged, especially among women, due to deep-rooted stigma and cultural misconceptions about psychiatric care. In many communities, depression is still not recognized as a legitimate medical concern, preventing timely and effective intervention.

As the need for accessible, non-stigmatizing mental health solutions becomes increasingly urgent, alternative and complementary therapeutic modalities have gained attention. One such approach is the Emotional Freedom Technique (EFT), a brief, evidence-based intervention that integrates elements of cognitive therapy and acupressure. Often referred to as "tapping," EFT is designed to reduce psychological distress by stimulating meridian points on the body while engaging with emotionally charged thoughts. Preliminary research suggests that EFT may not only reduce symptoms of stress, anxiety, and depression but may also enhance cognitive functioning, including memory and attention [51].

Given the psychological and cognitive toll of untreated mental health issues and the cultural barriers to conventional treatment in India, this study aims to assess the effectiveness of EFT as a holistic, low-cost intervention. Drawing on the work of Kalla, it examines the influence of EFT on stress, anxiety, depression, and short-term memory among Indian adults, offering valuable insights into its potential to enhance emotional well-being and cognitive resilience in this population [30].

Literature Review

Depression and anxiety are among the most prevalent psychological disorders and are known to have significant adverse effects on cognitive functioning. Kizilbash, Vanderploeg, and Curtiss found that depression, particularly when accompanied by anxiety, impairs immediate memory recall, reduces the capacity to acquire new information, and hinders the retrieval of newly learned material [32]. Similarly, Dotson et al. concluded that both depression and anxiety negatively influence cognitive and brain functioning, leading to decreased mental clarity and processing ability [22].

In recent years, Emotional Freedom Technique (EFT), a therapeutic approach that combines elements of cognitive focus and acupoint stimulation, has gained empirical support for its effectiveness in alleviating symptoms of psychological distress. Multiple studies have highlighted EFT's potential as a rapid and effective intervention. For instance, Benor et al. examined the effectiveness of EFT in reducing test anxiety among university students and reported significant improvements after just two sessions [11]. Gaesser and Karan also demonstrated the effectiveness of EFT in significantly reducing anxiety among high-ability adolescents [25].

Church and colleagues have conducted several studies confirming the efficacy of EFT in producing substantial reductions in symptoms of anxiety, depression, and stress. Their work supports EFT as a safe, stable, and evidence-based intervention suitable for use in both clinical and primary care settings [14, 17, 16]. Further evidence is provided by Clond, Church et al., and Bach et al., who each reported significant improvements in mental health outcomes, enhanced emotional well-being, and reductions in psychological distress following EFT interventions [4,9, 17].

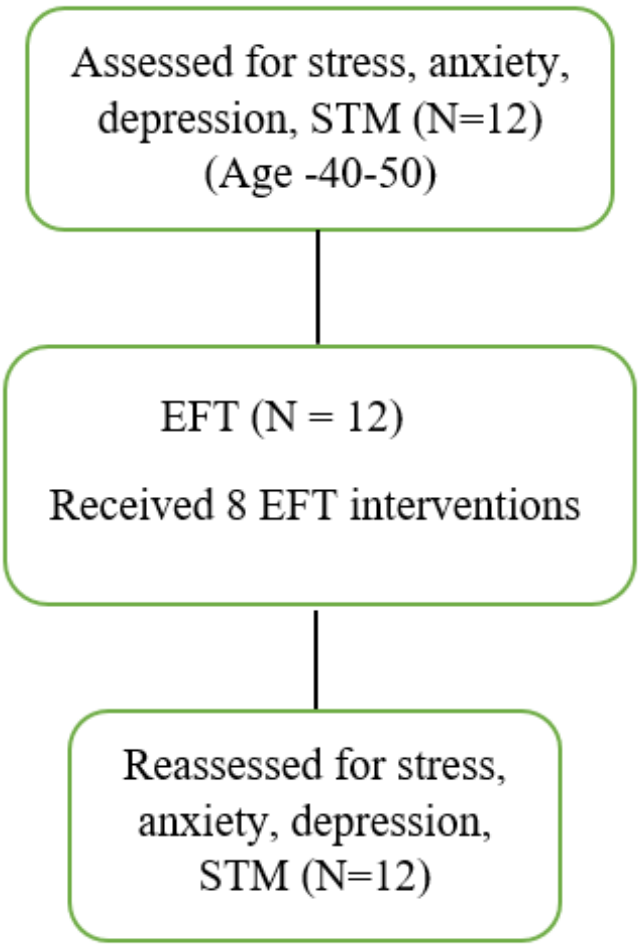
Feinstein provided further evidence supporting the effectiveness of acupoint stimulation, noting that significant improvements were often observed after only a few sessions (24). In a study on public speaking anxiety, Jones, S. et al., reported that the EFT treatment group showed a statistically significant decrease in anxiety symptoms [28]. Kalla et al. also highlighted that EFT can be a helpful tool for healthcare workers when supporting patients with chronic illnesses, as it effectively addresses the psychosocial aspects of such conditions [29].

The therapeutic potential of EFT extends to trauma and long-term psychological distress as well. Karatzias et al. explored the use of EFT for individuals with PTSD and found that many participants voluntarily discontinued treatment after an average of only 3.8 sessions due to symptom relief [31]. Patterson conducted a pilot study on nursing students and concluded that EFT significantly reduced stress and anxiety in this population [43]. Stapleton et al. investigated the feasibility of EFT for treating Major Depressive Disorder and observed positive results after just eight weeks of therapy [50]. Similarly, Rowe reported a notable decrease in long-term psychological distress following an EFT workshop, with sustained improvement observed at one-month and six-month follow-up intervals [46].

Despite this growing body of global evidence, research specifically examining the effects of EFT within the Indian population remains limited. Furthermore, there is a lack of culturally specific data linking EFT to cognitive outcomes such as memory enhancement. This gap underscores the need for more focused research in India to evaluate the effectiveness of EFT in reducing stress, anxiety, and depression, and in improving short-term memory performance among Indian adults.

Present Study

The author chose to evaluate the efficacy of EFT on stress, anxiety, depression and short-term memory in Indian adults



Participants who initially reported experiencing stress, anxiety, low mood, and memory-related difficulties such as forgetfulness were included in the study. Demographic information was collected, and informed consent was obtained from all participants prior to data collection. Baseline assessments were conducted to measure levels of stress, anxiety, depression, and short-term memory functioning. Each participant was assigned to an eight-week intervention consisting of one Emotional Freedom Technique (EFT) session per week. Post-intervention assessments were conducted following the completion of the eight sessions to evaluate any changes in the measured variables.

Previous research has demonstrated that psychological conditions such as stress, anxiety, and depression can contribute to cognitive impairments, including forgetfulness, confusion, and reduced concentration, which interfere with everyday mental functioning [32]. The corresponding author of this study is a certified practitioner who has been consistently using EFT as a therapeutic approach to address various psychological concerns, including depression, anxiety and chronic stress in clinical settings.

Stress

Stress is commonly described as "a state of mental or emotional strain or tension resulting from adverse or demanding circumstances" [41]. In psychology, it is more broadly understood as the body's response to any demand or challenge that disrupts an individual's psychological or physiological equilibrium [33]. Stress can be short-term, caused by immediate threats, or long-term, caused by ongoing pressure. Long-term stress can lead to emotional burnout and physical health problems [37].

According to the American Psychological Association, stress is a normal part of life, but prolonged stress can affect every system in the body, including the nervous, endocrine, and immune systems [2]. Baum defined stress as "any uncomfortable emotional experience accompanied by predictable biochemical, physiological, and behavioral changes" [9]. Baum and Polsusnzy emphasized that chronic stress can be a contributing factor to a host of serious health conditions including cardiovascular disease, depression, anxiety, obesity, insomnia, and weakened immune response [10].

Psychological stress is often influenced by an individual's perception of a situation, rather than the situation itself [33]. For instance, two individuals may respond differently to the same event depending on their coping mechanisms, prior experiences, or emotional resilience [20].

Anxiety

Anxiety, in lay terms, refers to "a feeling of worry, nervousness, or unease about something with an uncertain outcome" [41]. Psychologically, anxiety is both an emotional and physiological state characterized by heightened arousal, persistent worry, and behavioral changes such as avoidance or hypervigilance [8].

The APA defines anxiety as "an emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure." Anxiety becomes problematic when it is excessive, chronic, and interferes with daily life often manifesting in conditions like Generalized Anxiety Disorder (GAD), panic disorder, or Social Anxiety Disorder [2].

According to DSM-5, the core diagnostic criteria for GAD include excessive worry about a variety of life domains occurring more days than not for at least six months. Physical symptoms may include restlessness, fatigue, irritability, muscle tension, and sleep disturbance [1]. Chronic anxiety can significantly impair cognitive functions such as memory and attention and is associated with structural and functional brain changes in regions like the amygdala and prefrontal cortex [23, 47].

Depression

Depression is commonly defined as "feelings of severe despondency and dejection" [41]. Clinically, it refers to a mood disorder characterized by persistent sadness, loss of interest in previously enjoyable activities, and a range of cognitive and physical symptoms [2].

The APA describes depression as more than just sadness it includes changes in appetite or weight, sleep disturbances, fatigue, difficulty concentrating, feelings of worthlessness or guilt, and recurrent thoughts of death or suicide. The DSM-5 states that a diagnosis of Major Depressive Disorder (MDD) requires symptoms to be present for at least two weeks and represents a clear departure from previous functioning [1].

Depression has been shown to disrupt cognitive processes including memory, attention, and executive functioning [45]. Depression is connected to an imbalance in brain chemicals like serotonin and dopamine, and problems in the system that controls how the body responds to stress, called the hypothalamic-pituitary-adrenal (HPA) axis [42].

Short-Term Memory

Memory is defined as the process of retaining and using information over time or as the ability to draw on past experiences in the present. It involves three main stages: encoding, storage, and retrieval. Encoding can occur in visual, acoustic, or semantic forms. Visual encoding involves storing images briefly in iconic memory before potential transfer to long-term memory [36, 49].

Short-term memory (STM) is the system responsible for temporarily holding and manipulating information for cognitive tasks like learning and comprehension [5]. According to Atkinson and Shiffrin's multi-store model, STM lasts about 15 to 30 seconds and serves as a buffer between sensory input and long-term memory [3]. Miller proposed that STM holds about 7 ± 2 items, a concept famously termed the "magic number" [38]. Baddeley and Hitch's working memory model later redefined STM as a dynamic system with multiple components for processing verbal and visual-spatial information [6]. In India, the PGI Memory Scale, developed by Prasad and Wig, provides a culturally adapted assessment tool with ten subtests used in clinical settings [44].

Short-term memory (STM) can be strongly affected by mental health issues such as stress, anxiety, and depression. High stress levels raise cortisol, a hormone that can harm the hippocampus the part of the brain that helps store and organize memories [35]. A study by Rock et al. found that anxiety and depression are connected to poor focus and slower thinking, which can lower short-term memory capacity [45]. Nolen-Hoeksema et al. noted that ruminative thinking in depression increases cognitive load and reduces working memory efficiency [40]. Neuroimaging also shows functional changes in the prefrontal cortex and hippocampus in individuals with these disorders, further affecting memory [47].

Emotional Freedom Technique (EFT)

Emotional Freedom Technique (EFT), also known as "tapping," is an integrative mind-body intervention that combines principles from ancient Chinese acupressure and modern cognitive behavioral approaches. It was developed in 1995 by Gary Craig and Adrian Fowlie as a simplified version of Thought Field Therapy [12]. Craig summed up the core idea of EFT in one sentence: "The cause of all negative emotions is a disruption in the body's energy system" [21]. EFT combines principles from acupuncture which stimulates specific meridian points to balance energy flow and mind-body medicine which focuses on the interplay between mental and physical health. Both approaches have been backed by scientific research for many years [56].

EFT involves gently tapping specific acupressure points (also known as meridian points) on the body while simultaneously focusing on an emotional trigger and repeating an acceptance phrase, such as "Even though I feel this way, I deeply and completely accept myself." These acupoints are

thought to stimulate the body's energy system, helping to release blockages and reduce emotional distress [15].

The technique integrates principles of Traditional Chinese Medicine (TCM) with cognitive restructuring, allowing individuals to process emotional discomfort while sending calming signals to the brain. Research in neuroscience suggests that stimulation of acupoints may reduce limbic system arousal, particularly in the amygdala, which is involved in the processing of fear and emotion, and may help modulate stress hormone secretion [24, 53].

Like CBT, EFT emphasizes awareness of cognitive and emotional patterns, but with an added somatic component. Unlike CBT, which often focuses on disputing irrational beliefs through dialogue and homework, EFT allows emotional resolution through tactile stimulation, leading to a calming physiological response and a shift in cognitive processing [18].

Studies have demonstrated that EFT is effective in reducing symptoms of anxiety, depression, PTSD, and stress-related disorders, often in fewer sessions than traditional therapies [11, 19]. In 2012, the APA Division 12 Task Force recognized EFT as an evidence-based treatment, especially for anxiety and phobias, though more research is still needed to fully understand how it works [24].

EFT has also been applied to increase self-esteem and emotional resilience by addressing limiting beliefs embedded in the subconscious through a mind-body integration process. By balancing disruptions in the bioenergetic meridian system, EFT not only mitigates emotional distress but can also address associated physical symptoms like headaches, fatigue, and tension (4).

Research Hypotheses

H1: Emotional Freedom Technique (EFT) will significantly reduce levels of stress in Indian adults post-intervention.

H2: Emotional Freedom Technique (EFT) will significantly reduce levels of anxiety in Indian adults post-intervention.

H3: Emotional Freedom Technique (EFT) will significantly reduce symptoms of depression in Indian adults post-intervention.

H4: Emotional Freedom Technique (EFT) will significantly improve short-term memory performance in Indian adults post-intervention.

Material

- Consent Form
- Demographic Information Form
- Depression, Anxiety and Stress Scale 21 (DASS 21)
- Digit span (Jacobs, 1887)
- Visual Retention (Sub-test PGI Memory Scale)

Method

Participants & Procedure

According to the National Mental Health Survey of India conducted by NIMHANS, approximately 1 in 20 Indians suffers from depression, with a higher prevalence among women aged 40–49 years [39]. Based on these findings, 12 participants aged 40 to 50 years from Ahmedabad, India, who reported symptoms of stress, anxiety, low mood, and forgetfulness, were selected for the present study. After obtaining informed consent and recording demographic details, participants were screened for emotional and cognitive difficulties using standardized tools.

Depression, Anxiety, and Stress Scales – 21 (DASS-21)

Developed by Lovibond and Lovibond, DASS-21 is a brief, self-report instrument comprising 21 items across three subscales, each measuring symptoms of depression, anxiety, or stress. Participants rated the extent of their symptoms over the past week using a 4-point Likert scale. DASS-21 was designed to distinguish between normal and clinical levels of emotional distress, primarily by degree rather than type [34].

Digit Span Test

Originally devised by Jacobs, the Digit Span Test assesses auditory short-term memory by requiring participants to recall sequences of numbers either in forward or backward order. In the forward task, participants repeated digits in the same order; in the backward task, they reversed the sequence. The total number of correct responses across both formats was recorded as the participant's digit span score [27].

PGI Memory Scale – Visual Recognition Subtest

The PGI Memory Scale, developed and standardized by Dr. Dwarka Prasad and Dr. N.N. Wig in 1977, is a comprehensive, culturally adapted battery designed to assess various dimensions of memory in the Indian population. The scale includes ten subtests, each targeting a specific aspect of memory functioning. Visual Recognition is the 10th subtest of the PGI Memory Scale. In this task, the participant is shown a card displaying multiple objects and is instructed to observe the entire card attentively for 30 seconds. After a 2-minute delay, a second card is presented containing both previously seen and new items. The participant must identify and name the objects that were shown on the first card. They are not informed of the total number of original items or how many they have yet to identify, ensuring unbiased recall performance. Each correctly recognized and named object is awarded a score of one point. However, for every incorrectly identified object, one point is deducted from the total score. The maximum possible score for this subtest is 10 [44].

Eight, once a week individual therapy session was conducted for EFT intervention by the researcher. Participant were retested post intervention for stress, anxiety, depression and short-term memory.

EFT Intervention

The Emotional Freedom Technique (EFT) intervention involved a structured tapping protocol designed to address emotional distress through a combination of cognitive focus and acupressure stimulation. Participants were instructed to concentrate on a specific distressing thought or emotion, assign it a Subjective Units of Distress Scale (SUDS) rating from 1 to 10, and initiate a "setup phrase" that acknowledged the issue while affirming self-acceptance. This is consistent with Craig's original EFT procedure [21].

At the start of each session, participants stated a setup phrase three times while tapping on the "Karate Chop" point on the side of the hand. A typical setup phrase was: "Even though I have this problem, I deeply and completely accept myself." This phase is critical for addressing Psychological Reversal, a concept in EFT referring to unconscious self-sabotaging beliefs or energy disruptions that hinder emotional resolution [15].

Participants were then guided through the standard EFT tapping sequence involving the following meridian points: Top of the Head (TH), Eyebrow (EB), Side of Eye (SE), Under Eye (UE), Under Nose (UN), Under Lip (UL), Collarbone (CB), Under Arm (UA), and Wrist (WR). While tapping on each point, they repeated a shortened reminder phrase focused on the emotional issue. The sequence was repeated until the SUDS rating significantly decreased, ideally to zero. In follow-up rounds, the setup phrase was modified to reflect progress, e.g., "Even though I still have some of this remaining problem…" [21].

At the end of each session, participants received a home practice plan, which included the tapping sequence, an affirmation statement, breathing exercises, and a thought journal. They were also encouraged to pro-

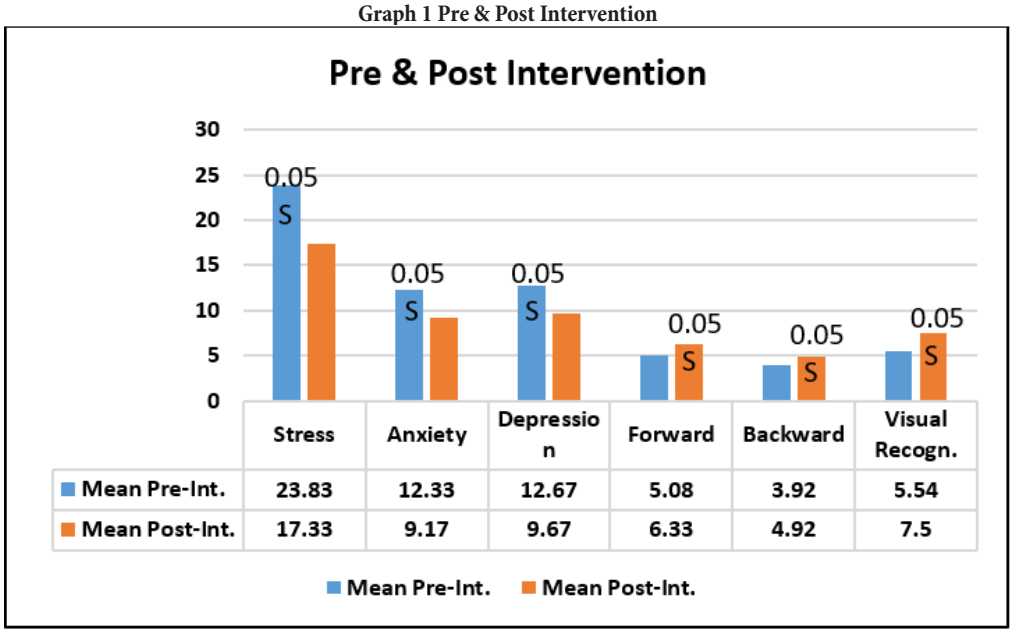
vide feedback at the beginning of the next session to support ongoing self-awareness and practice.

Statistical Methods

The statistical analysis was done using small samples within subject t test. A statistical significance in t test indicates whether the difference between the averages of two groups most likely reflects a "real" difference in the population from which the groups were sampled. We are interested in finding out (i) changes in subjects' scores before the treatment and after the treatment (ii) whether there was an improvement in stress, anxiety, depression and short-term memory post intervention [26, 48].

Results

Graph 1 Pre & Post Intervention



The total sample consisted of 12 participants, including 8 women and 4 men, all between the ages of 40 and 50 years. Post-intervention results indicated a statistically significant improvement in stress, anxiety, depression, and short-term memory.

The average pre-intervention stress score was 23.83 (moderate range), anxiety was 12.33 (moderate range), and depression was 12.67 (mild range). Following the eight-week EFT intervention, the average stress score decreased to 17.33 and anxiety to 9.17 (both within the mild range), while the depression score reduced to 9.67 (within the normal range). These outcomes support the acceptance of hypotheses H1, H2, and H3.

Regarding short-term memory, the average digit span scores before the intervention were 5.08 (forward) and 3.92 (backward). After the intervention, the averages increased to 6.33 (forward) and 4.92 (backward), indicating improvement in auditory memory. Visual memory scores also improved, rising from an average of 5.54 to 7.5 post-intervention. These findings reflect a significant enhancement in short-term memory performance; thus, we accept hypothesis H4.

Discussion

The results of the present study demonstrated statistically and clinically significant reductions in stress, anxiety, and depression among Indian adults following an 8-week Emotional Freedom Technique (EFT) intervention. The findings are in line with previous research conducted by Chatwin et al., who reported that EFT significantly reduced somatic symptoms in individuals with post-traumatic stress disorder (PTSD) [13]. Similarly, Stapleton et al. found notable improvement in participants with major depressive disorder after undergoing eight EFT sessions [52].

The average post-intervention scores for stress and anxiety fell within the mild range, while depression scores improved from a mild to a normal range. These outcomes suggest the efficacy of EFT in emotional regulation and psychological well-being, supporting earlier findings by Church, Jones et al. and Patterson, who demonstrated the clinical value of EFT in reducing emotional distress across various populations [15, 28, 43].

In addition to emotional improvements, the study also observed enhanced short-term memory performance post-intervention. Participants showed increased scores on both auditory memory (digit span) and visual recognition tasks. Although limited literature directly examines the cognitive impact of EFT, improvements in short-term memory may be attributed to reduced psychological distress. Baram and colleagues at UC Irvine reported that acute stress disrupts memory encoding and retrieval by activating corticotropin-releasing molecules, interfering with hippocampal function [7]. Therefore, the observed memory improvements in this study may reflect secondary cognitive benefits resulting from emotional relief.

This study reinforces the growing body of evidence that supports EFT as an effective mind-body technique. It aligns with the findings of Rowe and Kalla et al., who emphasized EFT's potential to improve emotional resilience and reduce distress in both clinical and non-clinical populations [30, 46]. However, while the present findings are encouraging, further research with larger and more diverse samples is warranted to validate the long-term effects and underlying mechanisms of EFT on cognitive and emotional functioning.

Conclusion

The present study supports the growing body of evidence that Emotional Freedom Technique (EFT) is an effective mind-body approach for managing symptoms of stress, anxiety, depression, and improving short-term memory. These findings align with the results of prior studies, including Chatwin et al., who reported significant symptom reduction following EFT interventions [13]. Participants in this study demonstrated clinically significant improvements in emotional wellbeing after an 8-week EFT program.

Additionally, participants showed notable gains in short-term memory

post-intervention, supporting the idea that reducing emotional distress may enhance cognitive functioning. Baram and colleagues suggested that stress hormones such as corticotropin can disrupt memory processing in the brain, implying that emotional regulation techniques like EFT could indirectly improve memory by reducing physiological stress responses [7].

This study also supports earlier findings by Patterson (2016) and Stapleton et al. (2020), who demonstrated that Emotional Freedom Technique (EFT) can be effective across different populations [43, 54]. Since emotions and thinking are closely connected, unresolved feelings like stress and anxiety can make it harder to concentrate, remember things, and function well day-to-day. By helping people manage these emotional issues, EFT may lead to improvements in both mental health and thinking abilities.

Based on these results, EFT is recommended as a valuable and accessible therapeutic tool for emotional and cognitive wellness in the Indian context. Future research with larger sample sizes and longitudinal follow-up can provide deeper insight into its long-term efficacy and mechanisms.

Limitations and Recommendations

The main limitation of this study is its small sample size, largely due to the one-hour weekly therapy sessions required for each participant. This limited the number of individuals who could take part and may reduce how widely the results can be applied to other populations. A larger and more diverse group would provide stronger evidence and a clearer understanding of how EFT works across different age groups, cultures, and backgrounds.

Additionally, while the study demonstrated a clear reduction in symptoms of stress, anxiety, and depression, along with improvements in short-term memory, the absence of a control or comparison group restricts the ability to isolate the effects of EFT from other potential influencing factors such as time, participant expectations, or placebo effects.

Another limitation of the present study is the absence of a long-term follow-up, which makes it difficult to determine whether the therapeutic improvements achieved through EFT were sustained over time. Without extended observation, it's unclear if the benefits seen immediately after the intervention continue in the long run. Future research should incorporate longitudinal follow-up to evaluate the lasting effectiveness of EFT.

It is also recommended that future research explore the underlying neurocognitive mechanisms linking emotional distress and short-term memory impairment, particularly in relation to the effect of stress hormones like cortisol on memory regions such as the hippocampus [35]. Investigating these pathways could deepen our understanding of how emotional regulation techniques like EFT influence cognitive performance.

Further, qualitative data such as participant feedback and emotional insights could enrich quantitative findings and help tailor EFT protocols for individual needs. Expanding research to include populations from varied socioeconomic, cultural, and clinical backgrounds will provide more comprehensive insight into the efficacy and adaptability of EFT across different settings.

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Cite this article: Shilpa Jasubhai. (2025) Assessing Efficacy of Emotional Freedom Technique on Stress, Anxiety, Depression, and Short-Term Memory Among Indian Adults. Journal of Neurology and Neuroscience Research 6(2): 144-150.