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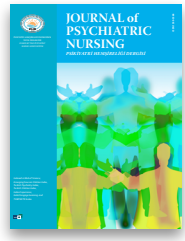

Original Article

The effect of emotional freedom technique on psychological distress in newly diagnosed multiple sclerosis patients: A randomized controlled trial

Pelin Çıray,[1] Neslihan Günüşen,[1] Remzi Oğulcan Çıray,[2] Serkan Özakbaş[3]

[1]Department of Psychiatric Nursing, Dokuz Eylül University, İzmir, Türkiye
[2]Department of Child and Adolescent Psychiatry, Dokuz Eylül University Faculty of Medicine, İzmir, Türkiye
[3]Department of Neurology, İzmir University of Economics Faculty of Medicine, İzmir, Türkiye

Abstract

Objectives: Multiple Sclerosis can lead to significant emotional and physiological challenges, especially during the initial phase following diagnosis. Emotional Freedom Technique, a self-administered intervention combining cognitive and somatic elements, may offer a complementary approach to conventional care.

Methods: This randomized controlled trial included 36 participants diagnosed with Multiple Sclerosis within the last three months. The study was registered at ClinicalTrials.gov (NCT number: NCT04969562). Participants were allocated using block randomization to either an intervention group (n=18), which received six sessions of Emotional Freedom Technique in addition to routine care, or a control group (n=18), which received routine care only. Blinding was maintained during the sampling, allocation, data collection, and data analysis stages. Cognitive function was assessed using the Symbol Digit Modalities Test, and psychological distress was measured using the Subjective Units of Distress Scale, with assessments conducted at baseline and after the intervention. Within-group differences were analyzed using the Wilcoxon signed-rank test, and between-group differences were evaluated using the Mann–Whitney U test. Effect sizes (r) were calculated for the outcome variables.

Results: No substantial differences were observed between the groups regarding depression, anxiety, or overall psychological distress following the intervention. However, participants in the intervention group demonstrated modest improvements in cognitive function (r=0.54), indicating a moderate-to-large effect size.

Conclusion: The findings suggest that Emotional Freedom Technique may have positive effects on cognitive functioning and certain physiological indicators, even if its impact on emotional distress is limited in the short term.

Keywords: Cognition; distress; emotional freedom; multiple sclerosis

Multiple sclerosis (MS) is a chronic autoimmune and neurodegenerative disease characterized by inflammation, demyelination, and axonal damage, affecting more than 2.8 million people worldwide.[1] The uncertain clinical picture of MS creates many psychosocial problems that increase the psychological distress of individuals diagnosed with MS.[2] Symptoms that occur with MS significantly affect the quality of life of individuals diagnosed with MS.[3] In addition to various psychosocial risk factors, depression and anxiety may accompany individuals diagnosed with MS due to the biological processes associated with MS.[4] According to a study conducted with individuals diagnosed with MS, 48% of individuals show symptoms of stress, anxiety, and depression within the first year after diagnosis.[5] In a study conducted with individuals newly diagnosed with MS, it was found that individuals experienced anxiety, fear of death, and intense stress during the diagnosis

Address for correspondence: Remzi Oğulcan Çıray, Dokuz Eylül Üniversitesi Tıp Fakültesi, Çocuk ve Ergen Psikiyatrisi Anabilim Dalı, İzmir, Türkiye
Phone: +90 507 448 77 70 **E-mail:** remziogulcanciray@gmail.com **ORCID:** 0000-0003-2864-613X
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process.[6] Distress, depressive symptoms, and anxiety in individuals diagnosed with MS may impair the individual's functionality, negatively affect quality of life, and increase somatic symptoms.[7] These problems are felt intensely in the process, from finding out about the disease to its acceptance, and can directly affect the patient's social functionality and relationship with other people.[8] There are studies that have shown that individuals diagnosed with MS need help in coping and psychosocial support after being diagnosed.[9,10]

Multiple sclerosis (MS) is a chronic disease characterized not only by physical impairments but also by neuropsychiatric symptoms and cognitive deficits.[11] Cognitive problems are common in MS and negatively affect patients' daily functioning, including social interaction, work status, and quality of life.[12] Psychosocial and psychotherapeutic interventions play a crucial role in the management of psychological symptoms in individuals diagnosed with multiple sclerosis. Previous studies have shown that cognitive behavioral therapy, mindfulness-based interventions, and structured stress management programs can effectively reduce depression, anxiety, and psychological distress, while also improving quality of life and cognitive functioning in individuals with MS.[2,11,13–15] In particular, brief and structured interventions have gained importance in the early stages following diagnosis, as newly diagnosed individuals often experience intense emotional distress and adjustment difficulties.[6,9] However, long-term psychotherapeutic interventions may not always be feasible due to fatigue, disease burden, and limited access to specialized mental health services. It is important to provide brief and effective intervention methods to reduce depression, anxiety, and psychological distress and improve the quality of life of individuals diagnosed with MS.[13] Emotional Freedom Technique (EFT) is an effective short-term intervention that is easy to implement and gives control to the patient.[16,17] Emotional Freedom Technique (EFT) is a psychophysiological intervention that integrates elements of cognitive behavioral therapy, exposure therapy, and somatic stimulation through acupressure applied to specific acupuncture points.[18,19] EFT is an intervention in which a person's physical or psychological awareness is focused on a specific topic and simultaneously stimulates selected acupuncture points along meridians in the body, especially on the head and upper body, by tapping them with fingertips.[17] EFT is reported to be effective in various psychiatric disorders such as anxiety, depression, and post-traumatic stress disorder, and the effect persists over time.[18] In the literature, there are studies that show that depression and anxiety in individuals with MS are related to cognitive function impairment.[20–22] Therefore, providing brief and effective intervention methods to reduce depression, anxiety, and psychological distress and to improve the quality of life of individuals diagnosed with MS is of particular importance.[13] Emotional Freedom Technique (EFT) is a brief psychophysiological intervention that integrates elements of cognitive behavioral therapy, exposure therapy, and somatic stimulation through the stimulation of acupuncture points.[16–19] EFT focuses on a specific physical or psychological concern while selected acupuncture points, primarily on the head and upper body, are stimulated by fingertip tapping.[17] EFT has been reported to be effective in various psychiatric conditions, including anxiety, depression, and post-traumatic stress disorder, with effects that may persist over time.[18] In the literature, several studies have demonstrated that depression and anxiety in individuals with MS are closely associated with impairments in cognitive functioning.[20–22]

What is presently known on this subject?

- Multiple sclerosis is associated with high rates of depression, anxiety, and psychological distress, particularly in the early period after diagnosis. Emotional Freedom Technique (EFT) has been studied in various populations and shown potential benefits for anxiety, depression, and stress reduction. However, no prior studies have examined the effects of EFT in newly diagnosed MS patients, especially regarding cognitive outcomes.

What does this article add to the existing knowledge?

- This study provides the first evidence on the use of EFT in newly diagnosed MS patients, showing that while short-term effects on distress, anxiety, and depression were limited, EFT improved cognitive functioning. The findings also demonstrate reductions in physiological markers such as blood pressure and pulse rate following EFT sessions. These results suggest a broader therapeutic role of EFT beyond emotional regulation.

What are the implications for practice?

- EFT may be considered as a safe, cost-effective, and self-administered complementary intervention to support cognitive and physiological well-being in MS patients. Integrating EFT into holistic nursing care could empower patients to actively manage their health. Future larger-scale trials are needed to confirm its utility and inform clinical guidelines.

Although the effectiveness of EFT has been examined in different populations, existing findings are not entirely consistent, and reported effect sizes are often modest or context-dependent. Systematic reviews and meta-analyses indicate that while EFT may show beneficial effects for certain psychological outcomes, the magnitude and consistency of these effects vary across studies and populations.[23,24] To date, no study has investigated the effectiveness of EFT in individuals newly diagnosed with MS, nor has its potential impact on cognitive functions been examined. Identification and intervention of depressive symptoms or anxiety levels of individuals diagnosed with MS are especially important in the treatment of newly diagnosed individuals. EFT is a short, easy, reliable, cost-effective, and self-administered method, and the fact that it is a self-administered method allows the individual to manage the disease.[16,17] However, it is stated that studies with a high level of evidence are needed to evaluate the effectiveness of EFT.[24] Based on these requirements, it is thought that the results of this study, which was planned in a randomized controlled experimental design, can make an important contribution to both literature and practice, particularly by informing early supportive care approaches and comple-

mentary intervention planning for individuals newly diagnosed with MS. From a psychiatric nursing perspective, such interventions may also have practical implications for clinical practice, as EFT can be integrated into psychoeducation and patient education programs delivered by nurses to support coping and psychological well-being in individuals with MS. Psychiatric nurses play a key role in the psychosocial care of individuals with chronic neurological conditions such as MS, particularly in the early stages following diagnosis. Nurse-led supportive interventions and psychoeducational approaches can contribute to improving coping strategies, reducing psychological distress, and promoting patient self-management. Unlike previous studies examining EFT in various clinical or non-clinical populations, the present study focuses specifically on individuals newly diagnosed with MS and evaluates both psychological outcomes and cognitive functioning. By using a randomized controlled design, this study aims to provide higher-level evidence regarding the potential role of EFT as an early supportive intervention in MS care.

The aim of this study was to investigate the effect of EFT on depressive symptoms, anxiety, psychological distress levels, Symbol Digit Modalities Test (SDMT) scores, resting heart rate, and blood pressure of individuals with newly diagnosed multiple sclerosis.

Hypotheses

H1: Depressive symptom levels of individuals with newly diagnosed multiple sclerosis who receive Emotional Freedom Technique (EFT) will be lower following the intervention compared with those in the control group.

H2: Anxiety levels of individuals with newly diagnosed multiple sclerosis who receive Emotional Freedom Technique (EFT) will be lower following the intervention compared with those in the control group.

H3: Psychological distress levels of individuals with newly diagnosed multiple sclerosis who receive Emotional Freedom Technique (EFT) will be lower following the intervention compared with those in the control group.

H4: Symbol Digit Modalities Test (SDMT) scores of individuals with newly diagnosed multiple sclerosis who receive Emotional Freedom Technique (EFT) will be higher following the intervention compared with those in the control group.

H5: Resting heart rate levels of individuals with newly diagnosed multiple sclerosis who receive Emotional Freedom Technique (EFT) will be lower after the intervention compared to pre-intervention measurements.

H6: Blood pressure levels of individuals with newly diagnosed multiple sclerosis who receive Emotional Freedom Technique (EFT) will be lower after the intervention compared to pre-intervention measurements.

Materials and Method

Design

This study was a randomized controlled experimental trial (Clinical Trials number NCT04969562). This randomized controlled trial was reported in accordance with the CONSORT guidelines. The completed CONSORT checklist has been provided as Supplementary File (See CONSORT Checklist).

Settings and Participants

This study was conducted between February 2021 and October 2021 in newly diagnosed adult individuals with MS who received outpatient treatment in the MS treatment unit of a university hospital. The sample of the study consisted of individuals diagnosed with multiple sclerosis within the last three months. The inclusion criteria for the study were: being over the age of 18, being cooperative and oriented enough to follow the given instructions, having been diagnosed with MS in the last three months, receiving MS treatment for at least the past month, and having received 3 or more points on the Subjective Units of Distress Scale (SUD), which measures psychological distress. The exclusion criteria for the study were: being at the flare-up stage of the psychiatric disease, using psychiatric medication for less than three months, and having MS attacks.

To determine the sample size, a power analysis was conducted based on a study examining the effectiveness of EFT in individuals with post-traumatic stress disorder.[25] According to the power analysis with a medium-level effect size, $p<0.05$, and power 0.80, a total of 36 individuals (18 individuals in each group) should be included in the study. During the recruitment process, 48 individuals were assessed for eligibility. Of these, 12 individuals declined to participate due to lack of time to attend the sessions. Consequently, 36 individuals were randomized to the intervention (n=18) and control (n=18) groups. During the follow-up period, three participants in the intervention group were lost to follow-up (two withdrew from the study and one experienced an MS attack), and one participant in the control group was lost to follow-up due to an MS attack. However, all randomized participants were included in the intention-to-treat analysis.

Randomization

Randomization was performed using a stratified block randomization method based on gender. Given that the prevalence of MS is higher in women than in men[26] and consistent with the distribution observed at the study center (three women to one man), randomization was stratified by gender in a 3:1 ratio. Block sizes of four were used. The randomization sequence was generated using a computer-based random number generator according to predefined block patterns and prepared in advance by a researcher not involved in participant recruitment,

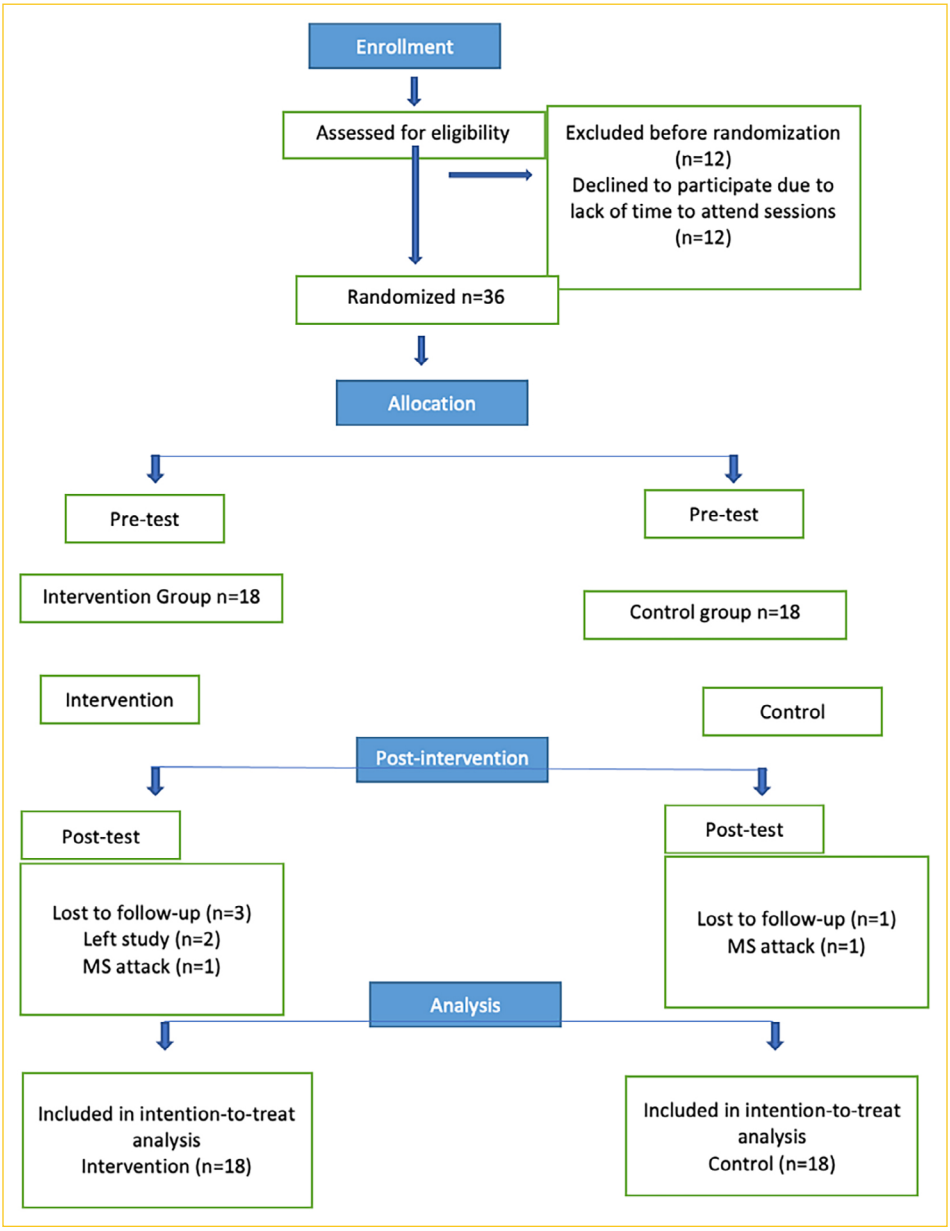

Figure 1. CONSORT flow diagram of the study participants.

data collection, or intervention delivery. The randomization procedure was conducted by an independent researcher, and the allocation sequence was placed in sealed envelopes and delivered to the researcher responsible for participant recruitment. Participants were assigned to either the intervention (A) or control (B) group based on this sequence. The flow of participants through the study is presented in Figure 1.

Data Collection

In the outpatient treatment unit, participants were allocated to two groups according to the randomization scheme by an independent researcher. Following allocation, baseline assessments were conducted for both groups prior to the initiation of the intervention by a researcher who was not involved in the intervention process. EFT was applied to one of the groups, while the other group continued their routine treatment. For the EFT group, Subjective Units of Distress (SUD) ratings, resting heart rate, and blood pressure were assessed immediately before and immediately after each EFT session. Depression, anxiety, psychological distress, and cognitive function (Symbol Digit Modalities Test; SDMT) were assessed at baseline (prior to the first session) and immediately after completion of the sixth EFT session. For the control group, depression, anxiety, psychological distress, and cognitive function were assessed at baseline and at the end of the six-week period corresponding to the intervention duration. The control group did not receive EFT and continued with routine medical care only. Physiological measurements (resting heart rate and blood pressure)

were assessed repeatedly only in the EFT group, as these measurements were directly related to the intervention sessions.

Intervention

The individuals with MS in the intervention group participated in six sessions of Emotional Freedom Technique (EFT) at seven-day intervals, with each session lasting approximately 30–45 minutes. In the first session, participants discussed the emotions experienced following their MS diagnosis. Subsequently, the EFT procedure was demonstrated step by step. The details of the intervention were reported according to the Template for Intervention Description and Replication (TIDieR) checklist, and the procedure is presented in Supplementary Material 1 (Suppl 1). The intervention was delivered by a researcher who holds a certification in Emotional Freedom Technique. Prior to the main study, a pilot application was conducted to evaluate the feasibility and clarity of the intervention procedures, and participants involved in the pilot study were not included in the final study sample.

Control Group

Participants assigned to the control group were asked to continue their routine treatment for six weeks. No EFT sessions were provided to this group during the study period. However, the same assessment procedures were applied to both groups. Upon completion of the study, participants in the control group were offered the opportunity to receive the Emotional Freedom Technique (EFT) intervention, consisting of six sessions conducted at seven-day intervals, with each session lasting approximately 35–45 minutes, if they wished to participate.

Instruments

The data were collected using a sociodemographic data form, the Subjective Units of Distress Scale (SUDS), the HAD scale (Hospital Anxiety and Depression Scale), and the SDMT (Symbol Digit Modalities Test). The scales and their administration methods are provided in Supplement 1.

Data Analysis

Data were analyzed using SPSS version 24.0. Normality of continuous variables was assessed using the Shapiro–Wilk test. Descriptive statistics were presented as mean±standard deviation or median (interquartile range), as appropriate. Given the relatively small sample size and the distributional characteristics of the data, non-parametric statistical methods were selected. Between-group comparisons at baseline and post-intervention were performed using the Mann–Whitney U test, while within-group pre–post comparisons were conducted using the Wilcoxon signed-rank test. To estimate intervention-related change between groups, post–pre difference (change) scores were calculated and compared using the Mann–Whitney U test. Repeated physiological measurements (blood pressure and pulse rate) within the intervention group were analyzed using the Wilcoxon signed-rank test. Categorical variables were compared using the chi-square test. Analyses were conducted according to the intention-to-treat (ITT) principle. Missing data were limited and were handled using the last observation carried forward (LOCF) method as a conservative approach. The primary outcome of the study was psychological distress. Other outcomes (depression, anxiety, cognitive function, and physiological indicators) were considered secondary and exploratory. Therefore, no formal correction for multiple comparisons was applied. A two-tailed p value <0.05 was considered statistically significant.

Ethical Considerations

Ethical approval for this study was obtained from the Non-invasive Research Ethics Committee of Dokuz Eylul University (Date: 29.03.2021, Approval No: 2021/10-29). Institutional permission was also granted. Prior to participation, all individuals were informed about the purpose of the study. Both written and verbal informed consent were obtained from all participants. The ethics committee approved the use of verbal consent as part of the study protocol. Confidentiality and voluntary participation were strictly ensured throughout the research process. This study was conducted in accordance with the Declaration of Helsinki.

Results

The results are presented in relation to the prespecified study hypotheses, including between-group differences in post–pre change scores and within-group changes over time.

The Characteristics of the Participants

There was no significant difference between the EFT group and the control group in terms of age, educational status, marital status, employment status, smoking, alcohol use, and having any other disease other than MS. Sociodemographic data are given in Table 1.

Comparison of the Depression Scores

It was determined in the comparison made with the Mann–Whitney U test between the EFT group and the control group that the depression scores of the control group prior to the intervention were significantly higher compared to the EFT group ($U=97.500$, $p=0.041$). In the comparison made after the intervention, it was seen that there was no significant difference ($U=145.000$, $p=0.586$). The EFT group's before and after intervention scores were compared within themselves, and it was determined that there was no statistically significant difference ($Z=-1.369$, $p=0.171$). The control group's before and after intervention scores were compared within themselves,

Table 1. Sociodemographic characteristics of the EFT group and the control group

	EFT group (n=18)	Control group (n=18)	Test value, p value
Age[1](Mean±SD)	30.00±8.43	32.78±9.27	U=136.000 p=0.419
Education status[2]			
Primary Education	1 (33.3%)	2 (66.7%)	X^2=5.466
High School	12(70.6%)	5 (29.4%)	df= 2
University	5 (31.3%)	11 (68.8%)	p=0.65
Marital status[2]			
Married	7 (38.9%)	12 (66.7%)	X^2=3.916
Single	9 (50.0%)	6 (33.3%)	df= 2
Divorced/died	2 (11.1%)	0 (0.0%)	p=0.095
Working status[2]			
Working	8 (44.4%)	11 (61.1%)	X^2=1.292
Not working	3 (16.7%)	3 (16.7%)	df= 2
Student	7 (38.9%)	4 (22.7%)	p=0.521
Other disease[2]			
Yes	3 (16.7%)	4 (22.2%)	X^2=0.177
No	15 (83.3%)	14 (77.8%)	df=1 p=0.674

[1]: Mann Whitney U Test; [2]: Chi Squared Test. EFT: Emotional freedom technique, SD: Standard deviation.

and it was determined that there was a statistically significant difference. It was found that the scores of the control group decreased significantly at the end of the six-week period (Z=−3.354, p=0.001). According to the results of this analysis, it was determined that there is a significant difference between the two groups (U=99.500, p=0.046). It was found that the control group's depression levels significantly decreased after the intervention. The results are given in Table 2.

Comparison of the Anxiety Scores

It was determined in the comparison made with the Mann–Whitney U test between the EFT group and the control group that the anxiety scores of the control group prior to the intervention were significantly higher compared to the EFT group (U=95.500, p=0.034). In the comparison made after the intervention, it was found there was no significant difference (U = 132.000, p=0.339). There was a difference between the first measurements of the EFT group and the control group; the difference prior to and after the application was evaluated with the Mann–Whitney U test. According to the results of this analysis, it was determined that there was a significant difference between the EFT group and the control group (U=99.000, p=0.045). The results are given in Table 2.

Comparison of the Psychological Distress Scores

There is no statistically significant difference between the psychological distress scores of the EFT group and the con-

Table 2. Comparison of the EFT group and the control group in terms of Depression, Anxiety, Psychological Distress and SDMT scores before and after the intervention

	Depression				Anxiety				Psychological distress				Cognitive function			
	Pre-test	Post-test	Differ. (Pi-Prei)	Z value, p value	Pre-test	Post-test	Differ. (Pi-Prei)	Z Value, p Value	Pre-test	Post-test	Differ. (Pi-Prei)	Z Value, p Value	Pre-test	Post-test	Differ. (Pi-Prei)	Z Value, p Value
EFT group (n=18)	4.33	3.38	-0.94	Z=1.369,	5.27	3.55	-1.05	Z=1.656,	7.72	5.94	-1.78	Z=-3.198	54.44	57.22	-2.78	Z=-2.308
Mean SD	4.14	4.03	3.63	p=0.171	4.41	3.51	3.70	p=0.098	1.90	2.41	1.59	p=0.001*	10.58	11.52	4.52	p=0.021*
Control group (n=18)	7.38	3.72	-3.66	Z= 3.354,	8.44	4.94	-3.83	Z=-2.588,	7.94	5.16	-2.78	Z=-2.981	48.38	49.55	-1.17	Z=-0.808
Mean SD	4.20	4.01	3.44	p=0.001*	4.17	4.34	4.28	p=0.01*	1.62	3.09	2.86	p=0.003*	11.07	13.22	5.39	p=0.419
U value,	U=97.500,	U=145.000,	U=99.500		U=95.500	U=132.000	U=99.000		U=150.000	U=138.000	U=133.000		U=113.000	U=111.000	U=131.500	
p value	p=0.041*	p=0.586	p=0.046*		p=0.034*	p=0.339	p=0.045*		p=0.697	p=0.444	p=0.354		p=0,121	p=0.106	p=0.333	

Differ (Post–Pre) values represent post-intervention minus pre-intervention scores. U: Mann-Whitney U test, Z: Wilcoxon test, p<0.05, *: p<0.05. EFT: Emotional freedom technique, SDMT: Symbol digit modalities test

Table 3. Comparison of blood pressure and pulse parameters of the EFT group before and after each session

	Before session (mean values±SD)	After session (mean values±SD)	p value	Z value
Systolic 1st session	120.22 (13.58)	120.83 (14.21)	0.929	-0.089
Diastolic 1st session	75.94 (10.64)	74.22 (8.66)	0.117	-1.569
Pulse 1st session	85.83 (12.98)	81.67 (12.99)	0.005*	-2.796
Systolic 2nd session	118.66 (11.18)	117.61 (14.07)	0.534	-0.621
Diastolic 2nd session	76.06 (8.49)	74.44 (9.38)	0.056	-1.908
Pulse 2nd session	89.22 (10.34)	83.83 (10.22)	0.028*	-2.204
Systolic 3rd session	115.33 (12.58)	115.77 (15.29)	0.777	-0.283
Diastolic 3rd session	73.67 (11.08)	72.28 (9.36)	0.175	-1.357
Pulse 3rd session	88.17 (10.84)	84.39 (8.77)	0.043*	-2.027
Systolic 4th session	114.88 (10.91)	115.55 (15.56)	0.581	-0.552
Diastolic 4th session	73.11 (8.91)	69.61 (8.86)	0.003*	-2.930
Pulse 4th session	85.72 (11.85)	85.56 (12.29)	0.094	-1.673
Systolic 5th session	116.16 (9.79)	115.27 (14.03)	0.421	-0.805
Diastolic 5th session	73.33 (7.77)	69.94 (9.65)	0.004*	-2.904
Pulse 5th session	85.89 (7.28)	82.61 (7.62)	0.006*	-2.775
Systolic 6th session	117.33 (10.72)	116.22 (13.86)	0.006*	-1.882
Diastolic 6th session	74.28 (7.23)	71.78 (6.29)	0.007*	-2.677
Pulse 6th session	87.61 (7.63)	84.50 (7.52)	0.002*	-3.087

Z: Wilcoxon test, p<0.05. *: p<0.05. EFT: Emotional freedom technique, SD: Standard deviation.

trol group prior to the intervention (U=150.000, p=0.697) and after the intervention (U=138.000, p=0.444). There is a significant difference between the EFT group's before and after intervention scores. The EFT group's psychological distress level is significantly decreased after the intervention compared to baseline (Z=−3.198, p=0.001). In addition, the between-group comparison of post–pre change scores in psychological distress (SUDS) showed no statistically significant difference between the EFT and control groups (Mann–Whitney U=133.000, p=0.354). The results are given in Table 2.

Comparison of the Cognitive Function Scores

The between-group comparison of post–pre change scores in cognitive function, assessed using the Symbol Digit Modalities Test (SDMT), revealed no statistically significant difference between the EFT group and the control group (Mann–Whitney U=131.500, p=0.333). The results are presented in Table 2.

The comparison of the blood pressure and the pulse rate of the EFT group prior to and after the sessions:

Each systolic and diastolic blood pressure value was compared within each session. There was no significant difference in the 1st, 2nd, and 3rd sessions, but there was a significant decrease in the 4th, 5th, and 6th session blood pressure measurements after the intervention compared to before the intervention (p<0.05). Table 3 shows the results of blood pressure and pulse rate measurements.

Discussion

The results of the study, which was carried out with the purpose of examining the effect of Emotional Freedom Technique (EFT) on depression, anxiety, psychological distress levels, Symbol Digit Modalities Test (SDMT) results, resting heart rate, and blood pressure in individuals newly diagnosed with MS, were discussed in the light of the literature.

In the comparison of depression and anxiety scores between the EFT and control groups after the intervention, no significant difference was observed between the two groups. Although the groups were randomly assigned, significant baseline differences in anxiety and depression scores were identified. Possible explanations for this finding, including the natural adaptation process following diagnosis and the effects of routine care, are discussed in detail below.

Since there is no study in the literature examining the effect of EFT on depression and anxiety in individuals diagnosed with MS, similar studies were examined. In these studies, EFT was found to have a statistically significant effect on anxiety and depression levels.[25,27,28] When the studies in the literature are examined, it is seen that fewer sessions were applied, and there was no control group in these studies.[28–31] For these reasons, it is recommended that studies evaluating the effectiveness of EFT in patients newly diagnosed with MS should be conducted with a larger sample size and with patients at higher risk of anxiety and depression.

In the literature, studies examining the effectiveness of EFT in different groups showed significant differences in psychological distress scores between groups.[25,30,32,33] The results of our study were found to be different from the literature. The reason for this difference is thought to be that the level of psychological distress experienced by individuals diagnosed with MS during the period when they were newly diagnosed decreased at the end of the six-week period in the study. Individuals diagnosed with MS who participated in the study were included in the first evaluation at a time when their diagnosis was finalized, and one month had passed since they started taking medication. Then, groups were determined by randomization. The EFT group participated in sessions lasting six weeks, while the control group continued routine care for six weeks. It is thought that both the six-week period and the routine care had an effect on their getting used to the diagnosis and thus decreasing their psychological distress levels according to their initial assessment. At the same time, when other studies are examined, it is seen that EFT is applied in a single session.[30,32] Applying EFT in a single session ignores time as a confounding factor.[23] In our study, six sessions of EFT were applied as recommended. Since a similar result was found in the results related to anxiety and depression, it is thought that the methodological weaknesses and recommendations mentioned above may be similar in the results of the SUD scores as well.

Although there was no significant difference with the control group in our study, the post-intervention cognitive function scores of the EFT group increased significantly compared to the pre-intervention cognitive function scores. When the literature was examined, no study examining the relationship between EFT and cognitive function scores was found. There are studies examining the effect of CBT and mindfulness interventions on cognitive functions in individuals diagnosed with MS.[2,11,14,15] Since EFT is a CBT and mindfulness-based intervention, information was discussed using this literature. High anxiety and depressive symptoms have been associated with decreased information processing speed.[20] CBT and mindfulness-based interventions are thought to positively affect cognitive functions and increase information processing speed.[15] Mindfulness-based interventions have been shown to lead to cognitive and mood-related benefits in neurological diseases such as multiple sclerosis.[14] In our study, the increase in cognitive function scores of the EFT group after the intervention is consistent with the literature. However, there was no change in the cognitive function scores of the control group. There is no study on the effect of EFT on cognitive functions. Therefore, it is recommended that studies evaluating the effectiveness of EFT to improve cognitive functions should be conducted. These findings should be interpreted cautiously, as they are based on within-group changes and were not supported by statistically significant between-group differences. Therefore, the observed cognitive improvements should be considered preliminary and exploratory.

In our study, systolic and diastolic blood pressure values and pulse rate values of the participants in the EFT group were compared before and after the session. A significant decrease was observed in diastolic blood pressure values after the sessions compared to baseline, and pulse rate measurements also showed a statistically significant reduction following EFT. These findings are consistent with a previous study reporting that EFT may lead to reductions in blood pressure and pulse rate.[16] However, it should be noted that these physiological comparisons in the present study were based on within-group (pre–post) changes observed in the EFT group only. Moreover, these findings reflect short-term physiological responses and should be interpreted with caution, particularly given the absence of between-group comparisons and the potential influence of multiple testing.

Implications for Nursing & Health Policy

The findings of this study suggest that Emotional Freedom Technique (EFT) may be integrated as a supportive practice within holistic nursing care for individuals newly diagnosed with Multiple Sclerosis (MS). Despite limited short-term effects on emotional distress, improvements in cognitive function and physiological indicators highlight the potential value of EFT in enhancing patient well-being. As a non-pharmacological, cost-effective, and self-administered method, EFT may empower patients in their own care and support the shift toward more patient-centered and participatory models in healthcare. Policymakers and nursing administrators should consider the inclusion of EFT-based interventions in rehabilitation and mental health support programs, particularly in neurology clinics. Incorporating EFT training into nursing curricula and continuous professional development activities may also broaden the scope of therapeutic tools available to nurses working with chronically ill populations. The strengths of the current study include its randomized controlled design, the focus on individuals newly diagnosed with multiple sclerosis, and the use of both psychological and physiological outcome measures. These strengths support the relevance of the findings and enhance the applicability of EFT as a supportive intervention in clinical nursing practice.

From a psychiatric nursing perspective, the expected outcomes of EFT include supporting patients' cognitive functioning, reducing physiological stress responses, and enhancing self-management skills during the early period following MS diagnosis. Psychiatric nurses, who are in continuous and close contact with patients, are well positioned to deliver brief interventions such as EFT, provide guidance on self-administration, and monitor patients' emotional and cognitive responses over time. Expanding nurse-led EFT interventions in outpatient neurology and psychiatry settings

may increase accessibility to psychosocial support and contribute to more comprehensive, patient-centered care.

Limitations of the Study

The sample size was finalized at the minimum estimated value due to the pandemic. The fact that the MS center where the study was conducted was a center with relatively good care may have affected the results.

Conclusion

In our study, EFT applied to individuals with newly diagnosed MS had no effect on depression, anxiety, or psychological distress levels. There was a significant increase between the pretest Symbol Digit Modalities Test scores and post-test Symbol Digit Modalities Test scores of the EFT group. Resting heart rates and blood pressures of individuals in the EFT group were significantly lower after the session compared to before the session. These results may be related to the small sample size, differences in baseline measurements between the experimental and control groups, and the fact that they were patients of a center offering relatively good routine care.

It is thought that large-sample, longitudinal, randomized studies with a high level of evidence are needed to examine the effectiveness of EFT in individuals diagnosed with MS. In terms of demonstrating the effectiveness of EFT, it is recommended that future studies be conducted with higher-risk groups in terms of depression and anxiety levels. Conducting a qualitative study including the opinions of the participants regarding the EFT application may be instructive in terms of improving the EFT application.

Ethics Committee Approval: The study was approved by the Dokuz Eylul University Non-invasive Research Ethics Committee (no: 2021/10-29, date: 29/03/2021).

Informed Consent: Written and verbal informed consent was obtained from all participants.

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