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# The Effect of a Brief Emotional Freedom Techniques Self-Intervention on Anxiety, Depression, Pain, and Cravings in Health Care Workers

Dawson Church, PhD; and Audrey J. Brooks, PhD

## Abstract

This study examined whether self-intervention with Emotional Freedom Techniques (EFT), a brief exposure therapy that combines a cognitive and a somatic element, had an effect on health care workers' psychological distress symptoms. The participants were 216 attendees at 5 professional conferences over a span of 1 year. Psychological distress, as measured by the Symptom Assessment 45 (SA-45), and self-rated pain, emotional distress, and craving were assessed before and after 2 hours of self-applied EFT by using a within-subjects design. A 90-day follow-up was completed by 53% of the sample, with 61% reporting using EFT subsequent to the workshop. Significant improve-

ments were found on all distress subscales and ratings of pain, emotional distress, and cravings at posttest ( $P < .001$ ). Gains were maintained at follow-up for most SA-45 scales. The severity of psychological symptoms was reduced (-45%,  $P < .001$ ) as well as the breadth (-40%,  $P < .001$ ), with significant gains maintained at follow-up. Greater subsequent EFT use correlated with a greater decrease in symptom severity at follow-up ( $P < .034$ ,  $r = .199$ ), but not in breadth of symptoms ( $P < .0117$ ,  $r = .148$ ). EFT provided an immediate effect on psychological distress, pain, and cravings, which was replicated across multiple conferences and health care provider samples.

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*Editor's Note:* For background information on EFT, please see Drs Church and Brooks' article in the last issue of IMCJ, Aug-Sep 2010.

## Introduction

Job burnout has been conceptualized as a psychological syndrome in response to chronic stress on the job. It is characterized by overwhelming exhaustion, cynicism, detachment, and a lack of professional effectiveness. Early research focused on employees working in the health and human services industry, primarily because of the emotional nature of the provider-client relationship. In addition to the emotional strain of this relationship, other factors also contribute to the high prevalence of burnout in health care, including lack of resources, negative client feedback, and high caseloads.<sup>1-4</sup> The relationship between job stress, burnout, and negative psychological states has been confirmed across multiple studies and occupations.<sup>4</sup>

The purpose of the present study was to examine whether a brief self-treatment seminar would reduce psychological distress across a wide sector of health care providers and personnel. The most widely used form of energy psychology—Emotional Freedom Techniques (EFT)—has been shown to be effective at reducing psychological symptoms including anxiety, depression, trauma, and phobias.<sup>5-9</sup>

A former study using a within-subjects design found improvement in psychological distress among 103 workshop

participants after 3 days of EFT self-treatment, with gains maintained at 3- and 6-month follow-up.<sup>8</sup> The current study investigated symptom change after a 2-hour EFT self-application, as well as measuring outcomes of subsequent self-applications of EFT. We hypothesized that EFT would produce positive effects in the psychological distress of health care workers.

## Methods

### Participants and Procedures

Participants were health care personnel (alternative medicine practitioners, nonmedical personnel, chiropractors, and physicians) attending energy psychology workshops at 5 separate professional conferences between February and June 2008. Permission was obtained from the relevant committee at each conference. Participants received 1 page of EFT instruction, the pre-post Symptom Assessment 45 (SA-45), a somatic and emotional indicators rating form, and an informed consent form. Ninety-day follow-up evaluations were completed via e-mail.

### Conference Presentation Procedures

The 4-hour workshop followed the EFT Power Training self-application format,<sup>10</sup> which includes an overview of the physiological and biological mechanisms of energy psychology followed by an EFT demonstration and 2 hours of self-application. One of the workshops was facilitated by Gary Craig, founder of the EFT method. The remaining workshops were provided by the first author of this article, who trained with Gary Craig.

### EFT Technique

The EFT technique has a cognitive and a somatic component. Participants state a negative cognition associated with a specific emotionally traumatic event and pair this cognition with

a self-acceptance statement. The participant identifies a part of the body where the feelings of distress are focused and rates the discomfort on a Likert-type scale from 0 (minimum) to 10 (maximum). This scale is referred to as Subjective Units of Distress (SUD) and was self-assessed in this particular study for 3 conditions using an ad hoc assessment called Somatic and Emotional Indicators (SEI). The somatic component of EFT involves tapping specific parts of the body while verbalizing the cognitive pairing. The process is repeated until the discomfort score is zero or a low number.<sup>11</sup>

### Measures

**SA-45:** The SA-45 is a short form of the Symptom Checklist-90.<sup>12</sup> Two global scales assess symptom severity (Global Severity Index; GSI) and symptom breadth (Positive Symptom Total; PST). There are 9 subscales: anxiety, depression, obsessive-compulsive behavior, hostility, interpersonal sensitivity, paranoia, somatization, phobic anxiety, and psychoticism. *T* scores based on normed data for non-clinical populations are calculated.

**The SEI:** Using a scale from 0 (minimum) to 10 (maximum), participants rated their SUD level of distress in: (1) an area in the body with pain or discomfort, (2) a specific emotional childhood experience, and (3) a substance habitually craved. Participants rated the relevant item before and after EFT self-application for pain, emotional memories, and cravings.

**EFT use:** The 90-day follow-up e-mail assessment measured EFT use after the workshop; participants indicated whether they had used EFT at least once per week, at least 3 times since the workshop, or not at all.

## Results

### Statistical Analysis

Baseline group differences were examined with chi-square, one-way analysis of variance, *t*-test analyses, and post hoc Tukey tests. A general linear model was used to examine symptom change over time. Overall significance was determined using a multivariate analysis of variance of the repeated measures of participant symptoms. The multivariate model included the SA-45 subscales, GSI, and PST. Separate models were conducted with conference and EFT use as between-group factors. Post hoc paired *t* tests were conducted applying the Bonferroni correction ( $P < .0045$ ). Bivariate correlations between EFT use and global scales were conducted.

### Participant Characteristics

A total of 216 participants completed the pre- and posttests. Follow-up SA-45 data were obtained for 114 (52.8%) participants. Forty-two completed the SEI (19.4%). The total sample comprised 164 females (75.9%) with an average age of 48 years (range, 17-83 years). Occupation was obtained on the follow-up survey and included alternative medicine practitioners (28.9%), nonmedical personnel (20.2%), chiropractors (18.4%), and physicians (11.4%). At follow-up, 70 (61.4% of the total) participants reported practicing EFT at least 3 times since the seminar. Analyses were conducted to determine comparability between conference participants. The results are presented in Table 1.

### Pre-post SA-45 Changes

There were no differences in outcome by conference, therefore all conference data were combined. Statistically significant pre- and posttest improvements were found on all SA-45 scales.

**Table 1. Participant Characteristics by Conference**

Characteristic	Conference 1	Conference 2	Conference 3	Conference 4	Conference 5	Total Sample	F, $\chi^2$ (df)	P Value
Participants, N	59	51	30	58	18	216		
Female, N (%)	44 (74.6)	38 (74.5)	26 (86.7)	43 (74.1)	13 (72.2)	164 (75.9)	2.2 (4)	.691
Age, * Mean $\pm$ SD	37.29 $\pm$ 9.51 <sup>a</sup>	55.35 $\pm$ 11.39 <sup>b,d</sup>	56.23 $\pm$ 9.57 <sup>b,d</sup>	47.34 $\pm$ 10.29 <sup>b,c</sup>	53.33 $\pm$ 14.33 <sup>b</sup>	48.22 $\pm$ 12.94	26.7 (4,211)	.001
Follow-up data, N (%)	27 (45.8)	25 (49.0)	15 (50)	38 (65.5)	9 (50.0)	114 (52.8)	5.4 (4)	.251
Postconference EFT use, N (%)								
1 time per week	1 (3.7)	4 (16.0)	9 (60.0)	11 (28.9)	2 (22.2)	27 (23.7)	23.6 (8)	.003
At least 3 times	14 (51.9)	10 (40.0)	5 (33.3)	13 (34.2)	1 (11.1)	43 (37.7)		
Not at all	12 (44.4)	11 (44.0)	1 (6.7)	14 (36.8)	6 (66.7)	44 (38.6)		
SA-45, Mean $\pm$ SD								
Anxiety	59.97 $\pm$ 7.54	56.76 $\pm$ 7.37	58.93 $\pm$ 8.12	60.53 $\pm$ 7.26	61.72 $\pm$ 8.51	59.37 $\pm$ 7.70	2.4 (4, 211)	.052
Depression	54.95 $\pm$ 5.81	53.71 $\pm$ 5.80	54.30 $\pm$ 7.95	56.98 $\pm$ 7.37	58.94 $\pm$ 6.89	55.44 $\pm$ 6.80	3.2 (4,211)	.015
Obsessive-compulsive	59.58 $\pm$ 8.82	58.04 $\pm$ 6.95	58.07 $\pm$ 11.19	60.47 $\pm$ 7.71	63.06 $\pm$ 7.55	59.53 $\pm$ 8.46	1.6 (4,211)	.176
Hostility <sup>†</sup>	59.39 $\pm$ 6.65 <sup>b</sup>	55.49 $\pm$ 3.86 <sup>a</sup>	56.20 $\pm$ 4.23	58.03 $\pm$ 5.85	59.67 $\pm$ 6.76	57.69 $\pm$ 5.75	4.5 (4,211)	.002
Interpersonal sensitivity <sup>†</sup>	57.68 $\pm$ 6.50	56.53 $\pm$ 6.78	55.77 $\pm$ 7.52 <sup>a</sup>	60.36 $\pm$ 6.50	62.83 $\pm$ 7.68 <sup>b</sup>	58.29 $\pm$ 7.09	5.3 (4,211)	.001
Paranoia <sup>†</sup>	55.64 $\pm$ 6.96	53.84 $\pm$ 6.04	52.93 $\pm$ 6.56 <sup>a</sup>	58.10 $\pm$ 6.82	60.39 $\pm$ 8.34 <sup>b</sup>	55.90 $\pm$ 7.10	6.1 (4,211)	.000
Somatization	57.93 $\pm$ 7.18	57.92 $\pm$ 7.81	58.30 $\pm$ 7.35	58.95 $\pm$ 7.25	61.28 $\pm$ 6.99	58.53 $\pm$ 7.35	0.9 (4,211)	.485
Phobic anxiety	60.97 $\pm$ 4.47	60.69 $\pm$ 3.84	61.97 $\pm$ 5.46	60.57 $\pm$ 4.43	63.94 $\pm$ 5.81	61.18 $\pm$ 4.65	2.3 (4,211)	.062
Psychoticism	61.61 $\pm$ 4.65	61.45 $\pm$ 4.02	60.80 $\pm$ 3.76	62.91 $\pm$ 4.64	62.89 $\pm$ 5.09	61.92 $\pm$ 4.46	1.6 (4,211)	.165
GSI	57.07 $\pm$ 8.36	54.86 $\pm$ 7.26	55.07 $\pm$ 9.18	59.24 $\pm$ 7.29	61.50 $\pm$ 9.28	57.22 $\pm$ 8.25	3.8 (4,211)	.005
PST	57.85 $\pm$ 9.13	55.88 $\pm$ 8.33	54.53 $\pm$ 9.14	59.66 $\pm$ 7.87	62.94 $\pm$ 9.37	57.83 $\pm$ 8.87	4.0 (4,211)	.004
<b>Key:</b> GSI=Global Severity Index; PST=Positive Symptom Total * Post-hoc pair-wise comparisons of means Tukey tests $P < .002$ , a<b, c<d † Post-hoc Tukey tests, $P < .0045$ , a<b								

**Table 2. Pretest and Posttest Paired t-Test Results (N=216)**

Scale	Pretest, Mean ± SD	Posttest, Mean ± SD	Change in Mean	t (215)	P Value
Anxiety	59.37±7.70	52.29±6.95	7.07	15.76	.001
Depression	55.44±6.80	50.98±5.00	4.46	13.50	.001
Obsessive-compulsive	59.53±8.46	52.36±7.57	7.18	15.73	.001
Hostility	57.69±5.75	55.22±3.95	2.46	7.07	.001
Interpersonal sensitivity	58.29±7.09	53.16±5.63	5.13	14.71	.001
Paranoia	55.90±7.10	51.10±6.05	4.80	13.44	.001
Somatization	58.53±7.35	52.29±6.45	6.25	16.90	.001
Phobic anxiety	61.18±4.65	59.53±3.16	1.65	7.07	.001
Psychoticism	61.92±4.46	59.93±3.36	1.99	8.69	.001
GSI	57.22±8.25	48.56±8.23	8.66	21.80	.001
PST	57.83±8.87	48.90±10.03	8.93	20.52	.001

Key: GSI=Global Severity Index; PST=Positive Symptom Total

When examined as a percent decrease in psychological distress from baseline level, symptom severity (measured by GSI) improved an average of 45% from the lowest possible normal baseline values, whereas symptom breadth (measured by PST) improved an average of 40% (Table 2; Figure 1).

**Pre-post SEI Change**

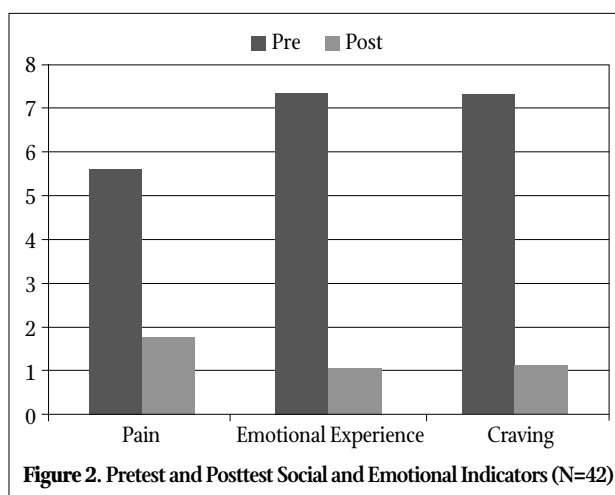
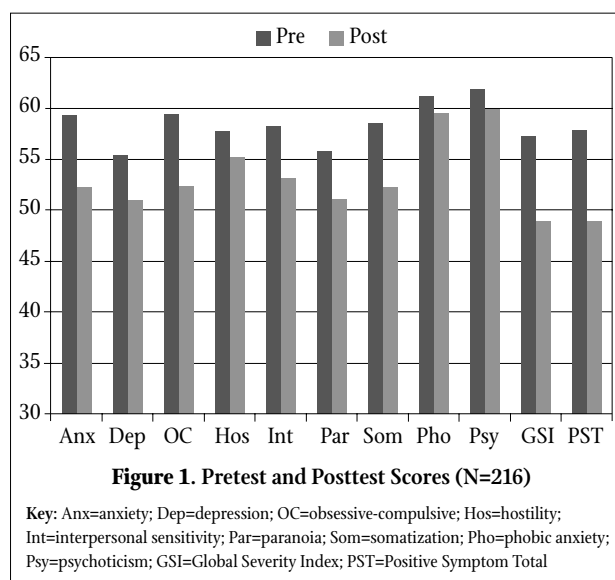
The multivariate test for the pre- and posttest changes in the somatic and emotional indicators were significant (F[3, 28]=208.5, *P*<.001), as were the post hoc comparisons (*P*<.001). Decreases in pain, emotional distress, and craving were observed immediately following that workshop module (Figure 2).

**Follow-up SA-45 Changes**

This model examined change over time in the pretest, posttest, and 90-day follow-up, with EFT use as the between-subjects variable. EFT use was nonsignificant, but the time effect was significant (F[22, 90]=34.89, *P*<.001). The pretest-posttest paired *t*-test results were statistically significant (*P*<.001) for all SA-45 scales (data not presented). In the pretest follow-up comparisons, anxiety, obsessive-compulsive, somatization, hostility, interpersonal sensitivity, paranoia, psychoticism, GSI, and PST showed statistically significant decreases from the pretest to 90-day follow-up. The bivariate correlation between EFT use and the pretest follow-up symptom severity (GSI) change was significant (*P*<.034, *r*=.199), indicating that greater EFT use was related to a greater decrease in symptom severity at follow-up. The correlation for breadth of symptoms (PST) was nonsignificant (*P*<.117, *r*=.148; Table 3; Figure 3).

**Discussion**

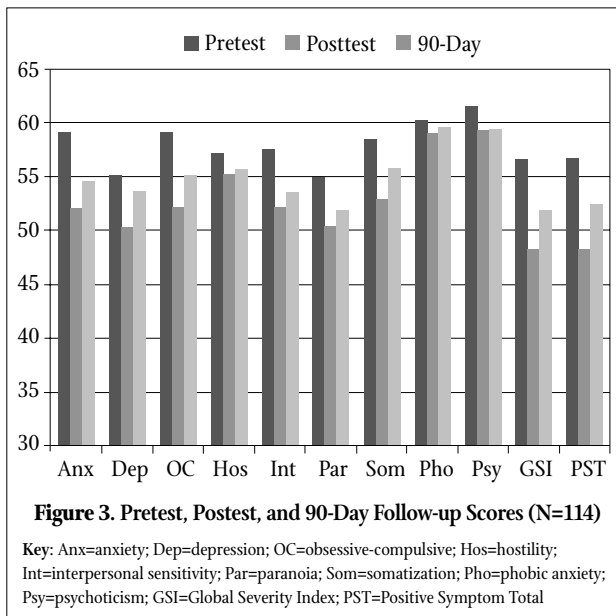
The present study found improvements in psychological distress following a workshop using self-applied EFT. This finding was consistent across health care provider samples and conferences, indicating a robust effect. The majority of the gains in reducing psychological distress were maintained at the 90-day follow-up. Consistent effects were noted with the 2 instructors, both the method's founder and a practitioner who had trained with him. The results of this study closely parallel the findings of a similar study in which participants attended a 3-day EFT workshop.<sup>8</sup> These 2 studies provide evidence of both short- and long-term benefits in improving psychological status after EFT application delivered in a workshop format.



The presence of burnout symptoms and corresponding psychological distress in health care workers has been widely studied.<sup>1-4</sup> The consequences of staff burnout include high turnover, inferior patient care and satisfaction, and overall increased operating costs.<sup>13-17</sup> In-service trainings to boost self-esteem to alleviate negative self-perceptions that lead to burnout have

Table 3. Pretest and 90-Day Follow-up Paired t-Test Results (N=114)					
Scale	Pretest, Mean ± SD	90-Day Follow-up, Mean ± SD	Change in Mean	t (113)	P Value
Anxiety	59.10±7.9	54.66±6.8	4.44	6.85	.001
Depression	55.16±6.5	53.73±6.4	1.43	2.51	.014
Obsessive-compulsive	59.16±8.3	55.24±7.7	3.92	6.55	.001
Hostility	57.18±5.0	55.71±4.0	1.47	3.51	.001
Interpersonal sensitivity	57.61±7.3	53.61±5.9	3.99	7.33	.001
Paranoia	55.06±7.2	51.97±7.1	3.09	5.24	.004
Somatization	58.48±7.6	55.87±6.6	2.61	3.71	.001
Phobic anxiety	60.29±3.8	59.60±2.7	0.69	2.27	.025
Psychoticism	61.52±4.2	59.44±5.9	2.08	3.16	.002
GSI	56.64±7.9	51.93±7.8	4.71	8.14	.001
PST	56.83±8.2	52.46±8.4	4.38	7.10	.001

Key: GSI=Global Severity Index; PST=Positive Symptom Total



been advocated.<sup>18</sup> Therefore, a method for reducing psychological symptoms related to job stress and burnout is beneficial for institutions, employees, and patients.

A group-administered intervention is cost-effective. Further, the number of treatment hours required for EFT efficacy is lower than for many other interventions. A single, group intervention that improves psychological functioning in a limited time frame is of practical utility in workplaces where high levels of stress and distress symptoms are found.

### Limitations

This study utilized a self-selected convenience sample and lacked a comparison group. The lack of follow-up data for almost half of the sample limits the ability to conclude that the benefits of EFT extend beyond the immediate conference. It is also possible that nonspecific effects of attending a health care conference, not EFT specifically, may contribute to the observed positive findings. However, within-subjects studies of short-term counseling interventions with employees have found significant reductions in psychological distress up to 1 year later.<sup>19,20</sup>

### Conclusions

This study demonstrated the effectiveness of EFT self-application to address problems common to health care providers, eg, pain, cravings, depression, and anxiety. The time frame and group format of the intervention makes it cost-effective, suitable for on-the-job practice, and provides durable participant gains. Future studies to include more frequent application of EFT after the intervention workshop, plus a randomized control group, will determine if the findings of this study may be generalized and extended.

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