

Emotional Freedom Techniques (EFT) for Stress in Students: A Randomized Controlled Dismantling Study

Rachel Rogers and Sharon Sears, Fort Lewis College

Abstract

Previous studies have demonstrated that Clinical EFT (Emotional Freedom Techniques) is an evidence-based method that relieves stress and a variety of psychological conditions. EFT combines techniques drawn from conventional methods such as cognitive therapy with the novel ingredient of acupressure. The goal of the current study was to determine whether or not EFT could quickly reduce stress symptoms in college students, and to compare the efficacy of acupoint stimulation to the stimulation of sham points. Participants were 56 university students randomly assigned to either the EFT ($n = 26$) or sham group ($n = 30$). They were assessed for nine common stress symptoms before and after a single 15–20 minute group treatment session. Sessions occurred on campus in groups of five to 10 students. Participants in both groups repeated statements from a script containing eight sets of stressful cognitions centered on feeling overwhelmed and hopeless, and ending with positive affirmations.

Those in the EFT group stimulated the points described in manualized form of the method, while those in the second group stimulated sham acupressure points. There were no significant differences in stress symptoms between the two groups at pretest. Posttest, symptoms were reduced in the EFT group by 39.3% and in the sham acupressure group by 8.1% ($p < .001$), demonstrating that the stimulation of actual points is superior to sham points even when all other components of treatment remain identical. The results of this study are consistent with previous dismantling studies demonstrating that acupressure is an active ingredient in the EFT protocol and not a placebo or inert component of treatment. Clinical EFT is an effective immediate treatment for common stress symptoms.

Keywords: EFT, Emotional Freedom Techniques, Clinical EFT, dismantling, sham, acupressure, students, stress

Rachel Rogers is an alternative medicine practitioner with degrees in psychology and anthropology from Fort Lewis College, Colorado. **Sharon Sears** is a clinical psychologist specializing in the medical aspects of stress. **Correspondence:** Rachel Rogers, e-mail: laughingowlcreations@gmail.com; 1022 Eby Creek Rd, Eagle, CO 81631. **Disclosures:** The authors report no conflicts of interest.

Emotional Freedom Techniques (EFT) is an evidence-based practice that combines cognitive therapy techniques with fingertip tapping on points on the body identified in acupuncture and acupressure (“acupoints”). The combination of these elements has been demonstrated to alleviate various psychological conditions including stress, anxiety, fear, depression, phobias, and posttraumatic stress disorder (PTSD), as well as physical symptoms including pain, fibromyalgia, and traumatic brain injury

(Church, 2013a). The online EFT research bibliography (Research.EFTuniverse.com) lists over 100 publications in peer-reviewed psychology and medical journals. These include meta-analyses and systematic reviews, randomized controlled trials, outcome studies, review articles, and case histories. EFT meets the criteria of the American Psychological Association’s Division 12 Task Force on Empirically Validated Treatments for conditions including depression, anxiety, phobias, and PTSD (Church, Feinstein, Palmer-Hoffman, Stein, & Tranguch, 2014).

Previous literature has suggested that EFT can alleviate the stress symptoms that contribute to adverse psychological effects. The combination of acupoint stimulation and cognitive therapy elements appears to send calming signals to the amygdala, which regulates the stress response

(Harper, 2012; Ruden, 2010; Church, 2013b). Harper (2012) found that fearful memories that trigger stress signals in the amygdala can be counterconditioned by repetitive tapping on acupoints. Swingle, Pulos, and Swingle (2004) used the electroencephalograph (EEG) to measure the brain waves of car accident victims at risk of PTSD, and found a significant decrease in the frequencies associated with fear. Other EEG studies have measured similar changes after acupoint tapping treatments (Lambrou, Pratt, & Chevalier, 2003; Swingle, 2010).

Regulation of stress-related brain-wave frequencies is associated with downregulation of parallel stress responses in the body, evident in hormone synthesis and gene expression. A triple-blind randomized controlled trial comparing EFT to a session of either talk therapy or rest found significant reductions in cortisol, the primary stress hormone (Church, Yount, & Brooks, 2012). Psychological conditions such as anxiety and depression declined more than twice as much in the EFT group as in the other two groups. A randomized controlled pilot study of gene expression in veterans with PTSD symptoms found regulation of stress-related genes, with immune genes upregulated and inflammation genes downregulated (Church, Yount, Rachlin, Fox, & Nelms, 2015).

EFT has been used with populations of university students to alleviate stress in several studies. Boath, Stewart, and Carryer (2013) studied students with fear of public speaking. The participants were assessed based on the Subjective Units of Distress (SUD) scale (Wolpe, 1973) and the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). The outcome showed a significant decrease in SUD ($p < .001$), HAD ($p = .003$), and the HAD Anxiety Subscale ($p < .001$) with no significance in the HAD Depression Subscale ($p = .067$). Sezgin and Özcan (2009) studied the effect of Progressive Muscular Relaxation (PMR) and EFT on test anxiety in high school students. The results demonstrated that there was a statistically significant decrease in test anxiety levels in the students in both the experimental and control groups, but a greater effect for EFT. The test scores of students improved more with EFT, but the overall results were not statistically significant. A study of teenage university students with clinical levels of depressive symptoms who

received group EFT sessions found that after treatment their mean scores were in the “non-depressed” range (Church, De Asis, & Brooks, 2012). A pilot study found that both EFT and cognitive behavior therapy (CBT) were efficacious for test anxiety in students but that EFT required fewer sessions (Benor, Ledger, Toussaint, Hett, & Zaccaro, 2009).

Critics of EFT believe that that it is no more effective than a placebo (Bakker, 2014; Devilly, 2005). They aver that any efficacy measured is due to ingredients EFT shares with traditional psychotherapeutic methods such as CBT and exposure therapy, and not to tapping. Waite and Holder (2003) performed a randomized controlled trial assessing fear. EFT was compared to two sham tapping conditions and a non-tapping control. They found that all three tapping groups improved significantly while the non-tapping group did not. Participants improved whether they tapped on EFT’s prescribed points, on sham points, or on a doll. However, the investigators attributed their results to therapeutic ingredients other than tapping. Critics of the study have pointed out that the results can also be interpreted as supporting tapping because while the group that did not tap did not improve, all three tapping groups improved significantly (Baker, Carrington, & Putilin, 2009; Pasahow, 2010). The controversy over whether tapping is an inert placebo or an active therapeutic ingredient has necessitated the design of dismantling studies to answer that particular research question.

Previous dismantling studies have shown EFT to be most effective when both its somatic and verbal components are included. One study of university students compared a tapping group to a control group that received mindful breathing (Fox, 2013). On most measures, the tapping group demonstrated significantly better results. Another dismantling study compared tapping on EFT’s prescribed points with tapping on sham points in a population of 126 teachers at risk for burnout (Reynolds, 2015). The experimental group was taught the manualized EFT procedure while the control group tapped on sham points. Importantly, they tapped with an open hand to avoid engaging fingertip acupoints, as Waite and Holder (2003) had inadvertently done. The EFT group had significantly larger drops in burnout symptoms. These studies confirm

that the complete EFT protocol, including cognitive and physical elements, is necessary.

In another dismantling study, this time of acupuncture rather than acupressure, the investigators measured the differences in response to chronic stress in four groups of rats (Eshkevari, Mulroney, Egan, & Lao, 2015). The design of the study targeted the hypothalamus-pituitary-adrenal (HPA) axis pathway common to both humans and rats, and examined the production of cortisol. After stress was induced, the first group of rats was given the acupuncture treatment. In the second, needles were placed in sham acupoints. The third was given no treatment, while the final group was not stressed and given no treatment. The overall results showed lower cortisol levels in the blood and decreased behavioral indicators of depression and anxiety in the rats that were given the full acupuncture treatment. This suggests that there is potential that the acupuncture signals can travel the HPA axis in humans. This suggests that the acupressure component of EFT may be an active ingredient in its efficacy, acting through the HPA axis to regulate stress.

Methods

The objective of the study, performed under supervision to meet the requirements of a fourth-year thesis in a psychology program, was to determine whether or not tapping on acupoints is an active ingredient in EFT. Participants were 56 students attending Fort Lewis College in Colorado. Of these, 69.6% were female, and 28.6% male, with ages ranging from 20 to 50 years old, and a mean of 23.4 ($SD = 5.11$). The study was approved by the institution's review board. All participants provided informed consent. Treatment was focused on the alleviation of common stress symptoms that could be easily noted and reported by participants. The intensity of these symptoms was measured before and after treatment on a 10-point Likert scale, with 1 being no intensity and 10 being the maximum intensity. Participants were randomly assigned to either the experimental or control group, based on the session for which they signed up.

Participants were a convenience sample consisting of volunteers approached in classes, computer labs, dining halls, and other locations. Those who consented signed up for a scheduled time to meet in unused classrooms. The test took the form

of a self-report of two common stress symptoms experienced over the past 6 months, and seven that applied to the current day. They were:

Within the past 6 months:

My sleeping pattern has changed. (Sleeping more or less than usual.)

My appetite has changed. (Eating more or less than usual.)

Today:

I am currently feeling physical tension.

I am experiencing more emotional stress than normal.

I find myself feeling worried or anxious about future events.

I am having difficulty taking deep breaths.

I am having difficulty concentrating on tasks at hand.

I am experiencing physical pain.

Today is a good day.

In the acupressure group, participants were taught to tap on the acupoints identified in the Basic Recipe described in *The EFT Manual* (Craig, 2008; Church, 2013b). An optional point on the top of the head was also used. They followed the instructor, tapping the prescribed points and repeating the script. The sham group used an identical procedure except that participants were taught to tap with their fingertips on sham points. These included the top of the hand, elbow, shoulder, forehead, stomach, knee, and thigh. Every effort was made to keep the two protocols identical with the exception of the body points.

Both groups used a script that contains statements of compassionate self-care, as well as positive affirmations (see Appendix). The script was derived from one published by Pandey (2012). It contains eight cycles of tapping. The first cycle acknowledges the extent of the participant's feelings of overwhelm. From there, it opens up the possibility of change, addresses doubts about the feasibility of change, encourages relaxation, then hopefulness, and ends with choosing peace and calm. Participants repeated the script while tapping the indicated points.

Upon completion of the script, the participants were instructed to take a deep breath, and then to complete the posttest without looking at their previous answers. Both the acupoint and sham tapping groups received a single session that lasted 15–20 minutes. Groups ranged in size from five to 10 individuals.

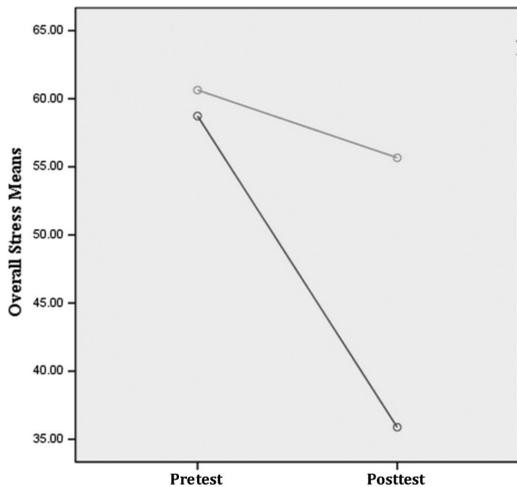


Figure 1. Stress symptom means in the EFT and sham tapping groups.

Results

A two-way ANOVA with alpha set at .05 was used to determine the stress levels of participants. There was no significant difference between groups at pretest. As shown in Figure 1, the interaction of time \times group was significant: $p F(1,54) = 47.24$, $p < .001$. Stress symptoms declined significantly more in the acupressure group than they did in the sham tapping group. In the EFT group ($n = 26$), symptoms declined 39.3% from a mean of 58.73 ($SD = 15.87$) to a mean of 35.88 ($SD = 8.63$). The sham tapping group ($n = 30$) had a smaller reduction in stress of 8.1% with a pretest mean of 60.63 ($SD = 13.33$) and a posttest mean of 55.67 ($SD = 14.07$). No adverse events were reported, and because only a single treatment session was utilized, there were no dropouts.

Discussion

The results of the study show that performing the EFT protocol and tapping on the prescribed acupressure points is an effective means of reducing immediate stress. The sham group showed a minor improvement. The results are consistent with other published reports demonstrating that tapping on acupoints is more effective than tapping on sham points, and that the cognitive and exposure elements of EFT alone are insufficient to explain its efficacy. Both the verbal and somatic components of EFT are required to produce a significant reduction in stress symptoms. A further

verbal variable was eliminated by having both groups use an identical standard script. Taken together with the results of the many other studies already published, it is clear that EFT can help students alleviate stress in its many forms, such as performance anxiety, test anxiety, social phobia, insomnia, low self-esteem, and depression.

The study had a number of limitations. A convenience sample was used, and these students may have been more motivated to change than a sample randomly selected from the population, as was done in the Reynolds (2015) study. They may also have been more stressed and hence more inclined to seek treatment. Some participants in both groups may have already been familiar with EFT, since it is used by over 10 million people worldwide (Church, 2013a). One of the investigators delivered both interventions, so the investigator was not blind to treatment group, and the investigator's allegiance to the EFT method may have influenced the results.

Several members of both groups were known to the investigator prior to the commencement of the study. There were more female participants than males. In addition, environmental factors were not controlled for, and access to resources was limited due to location and time allowances for the study. Certain settings may have provided a more relaxing environment than others. Assessment was made on self-observed symptoms only, without observer-rated measures, or the use of a valid and reliable questionnaire. A final potential confounder is that participants in the sham group tapped with their fingertips. Acupuncture charts show acupoints at the end of acupuncture meridians terminating at the tips of three of the four fingers, and while this minimal dose was not as effective as the full EFT routine, it may have contributed to the reductions in stress experienced by the sham tapping group. Nonetheless, this study shows that there are immediate positive effects on stress that result from using EFT, and reinforces the results of previous dismantling studies showing that the acupressure tapping component is an essential ingredient in EFT's efficacy.

Future studies might control for the aforementioned limitations. Since the script contained compassionate self-talk statements and positive affirmations, an additional control group tapping without a script could determine the contribution of affirmations to EFT's efficacy. Like the Reynolds (2015) study, a replication or

extension should use open-handed tapping using body locations that contain absolutely no acupuncture points. Like Waite and Holder (2003), this study examined only EFT's immediate effects; a longitudinal study could determine whether the therapeutic gains of participants are maintained over time.

References

- Baker, A. H., Carrington, P., & Putlin, D. (2009). Theoretical and methodological problems in research on Emotional Freedom Techniques (EFT) and other meridian based therapies. *Psychology Journal*, 6(2), 34–46.
- Bakker, G. (2014). A bigger swamp is still a swamp: Comments on Feinstein (2014). *Energy Psychology: Theory, Research, and Treatment*, 6(1), 44–47.
- Benor, D. J., Ledger, K., Toussaint, L., Hett, G., & Zaccaro, D. (2009). Pilot study of EFT, WHEE and CBT for treatment of test anxiety in university students. *Explore: The Journal of Science and Healing*, 5(6), 338–340.
- Boath, E., Stewart, A., & Carryer, A. (2013). Tapping for success: A pilot study to explore if Emotional Freedom Techniques (EFT) can reduce anxiety and enhance academic performance in university students. *Innovative Practice in Higher Education*, 1(3), 1–13.
- Church, D. (2013a). Clinical EFT as an evidence-based practice for the treatment of psychological and physiological conditions. *Psychology*, 4(8), 645–654.
- Church, D. (2013b). *The EFT Manual* (3rd ed). Santa Rosa, CA: Energy Psychology.
- Church, D., De Asis, M. A., & Brooks, A. J. (2012). Brief group intervention using EFT (Emotional Freedom Techniques) for depression in college students: A randomized controlled trial. *Depression Research and Treatment*, 2012, 1–7.
- Church, D., Feinstein, D., Palmer-Hoffman, J., Stein, P. K., & Tranguich, A. (2014). Empirically supported psychological treatments: The challenge of evaluating clinical innovations. *Journal of Nervous and Mental Disease*, 202(10), 699–709.
- Church, D., Yount, G., & Brooks, A. J. (2012). The effect of Emotional Freedom Techniques (EFT) on stress biochemistry: A randomized controlled trial. *Journal of Nervous and Mental Disease*, 200, 891–896.
- Church, D., Yount, G., Rachlin, K., Fox, L., & Nelms, J. (2015). Epigenetic effects of PTSD remediation in veterans using Clinical EFT (Emotional Freedom Techniques): A randomized controlled trial. *American Journal of Health Promotion* (in press).
- Craig, G. (2008). *The EFT Manual*. Santa Rosa, CA: Energy Psychology Press.
- Devilley, G. J. (2005). Power therapies and possible threats to the science of psychology and psychiatry. *Australian and New Zealand Journal of Psychiatry*, 39, 437–445.
- Eshkevari, L., Mulrone, S., Egan, R., & Lao, L. (2015). Effects of acupuncture, RU-486 on the hypothalamic-pituitary-adrenal axis in chronically stressed adult male rats. *Endocrinology*, 3649–3660.
- Fox, L. (2013). Is acupoint tapping an active ingredient or an inert placebo in Emotional Freedom Techniques (EFT)? A randomized controlled dismantling study. *Energy Psychology: Theory, Research, and Treatment* 5(2), 15–28.
- Harper, M. (2012). Taming the amygdala: An EEG analysis of exposure therapy for the traumatized. *Traumatology*, 18(2), 61–74.
- Lambrou, P. T., Pratt, G. J., & Chevalier, G. (2003). Physiological and psychological effects of a mind/body therapy on claustrophobia. *Subtle Energies and Energy Medicine*, 14, 239–251.
- Pandey, S. (2012). EFT tapping script to release overwhelm and stress. Retrieved from tap-easy.com/stress-overwhelm-hurry-anxiety-eft-tapping
- Pasahow, R. (2010). Methodological problems in Waite & Holder (2003) preclude meaningful interpretations about Emotional Freedom Techniques. *Energy Psychology: Theory, Research, and Treatment*, 2(2), 39–46.
- Reynolds, A. (2015). Effect of Emotional Freedom Techniques (EFT) on teacher burnout. *Energy Psychology: Theory, Research, and Treatment*, 7(1), 14–19.
- Ruden, R. A. (2010). *When the Past Is Always Present: Emotional Traumatization, Causes, and Cures*. New York, NY: Routledge.
- Sezgin, N. & Özcan, B. (2009). The effect of Progressive Muscular Relaxation and EFT on test anxiety in high school students: A randomized controlled trial. *Energy Psychology: Theory, Research, and Treatment*, 1(1), 23–30.
- Swingle, P. (2010). Emotional Freedom Techniques (EFT) as an effective adjunctive treatment in the neurotherapeutic treatment of seizure disorders. *Energy Psychology: Theory, Research, and Treatment*, 2(1), 29–38.
- Swingle, P. G., Pulos, L., & Swingle, M. K. (2004). Neurophysiological indicators of EFT treatment of posttraumatic stress. *Subtle Energies and Energy Medicine*, 15(1), 75–86.
- Waite, L. W. & Holder, M. D. (2003). Assessment of the emotional freedom technique: An alternative treatment for fear. *Scientific Review of Mental Health Practice*, 2(1), 20–26.
- Wolpe, J. (1973). *The Practice of Behavior Therapy* (2nd ed.). New York, NY: Pergamon Press.
- Zigmond, A. S. & Snaith, R. P. (1983). The Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica*, 67(6), 361–370.

The following script was used for both groups. The EFT points are shown to the left of each statement. The experimental group tapped the sham points instead (not shown).

Setup Statements

Karate Chop Point: Even though I feel so stressed out, I still love and accept myself wholly and completely.

Karate Chop Point: Even though I am feeling incredibly stressed and overwhelmed, I choose to accept and love myself now.

Karate Chop Point: Even though I am experiencing overwhelming amounts of stress, I love and accept myself wholly and completely.

EFT Round 1: Expressing the Overwhelm

Eyebrow So many things to do!

Side of the eye I'm feeling so overwhelmed!

Under the eye How the heck am I supposed to do all this?

Under the nose All this rush to do things that "must" be done.

Chin All the pending things feel like a big cloud.

Collarbone Looming over me, fogging my mind.

Under the arm Causing me to feel an urgency without any clarity.

Top of the head I can do so much better when I have clarity.

EFT Round 2: Understanding the Overwhelm

Eyebrow I can think better when I'm not feeling rushed.

Side of the eye My life feels like an emergency room.

Under the eye But I'm not in danger, then why this urgency?

Under the nose This is not a fight-or-flight situation.

Chin Some things need to be done now.

Collarbone Some things can be done later.

Under the arm Some things need to be done later.

Top of the head So by putting all these things in a "do now" basket...

EFT Round 3: Exploring the Possibilities

Eyebrow I'm only bogging myself down.

Side of the eye Wouldn't it be nice if everything fell into place?

Under the eye Like the pieces of a puzzle?

Under the nose Without me having to cut a sorry figure?

Chin Maybe I could space out my tasks.

Collarbone So they fit well in the larger scheme of things.

Under the arm So I can handle them well and responsibly.

Top of the head And be proud of having done an awesome job.

EFT Round 4: Addressing Doubts

Eyebrow But if I don't feel this urgency in my bones

Side of the eye I'll probably slacken off.

Under the eye I won't push myself enough.

Under the nose Shouldn't I stretch myself to do more and more?

Chin Am I not holding myself back by relaxing even just a little bit?

Collarbone What if I could do the things that I could manage?

Under the arm Without overstretching myself?

Top of the head Without creating all this stress?

BREAK—Take a deep Breath here.

EFT Round 5: Relaxing a Little

Eyebrow Even if I'm only doing the things that I can manage,

Side of the eye I don't need to feel overwhelmed.

Under the eye All this pressure to pull off everything

Under the nose is only pushing me back into the pavilion.

Chin Instead of driving me towards my goal.

Collarbone I'm smart enough to prioritize things.

Under the arm I choose to slow down enough to prioritize and schedule things

Top of the head to maybe make a real list.

EFT Round 6: Becoming Hopeful

Eyebrow instead of carrying around mental notes.

Side of the eye No matter how much I work myself up into a fury

Under the eye to get everything done right now, things take time to get done.

Under the nose Even if there are things I won't be able to pull off

Chin during the time limit set for me, that's okay.

Collarbone I know that I'm trying to do the best I can at all times.

Under the arm And, who knows, everything may fall into place.

Top of the head Now that would be nice.

EFT Round 7: Slowing Down

Eyebrow What if I could live a full life without missing a beat?

Side of the eye And without feeling this need to rush through things?

Under the eye Where am I living it if I'm only rushing through life?

Under the nose I choose to slow down and step back.

Chin I'll figure it all out in good time.

Collarbone All this adrenaline rush, I don't need it to keep me motivated.

Under the arm I feel so much more in control when I'm relaxed.

Top of the head When I'm calm, I feel like I'm in charge.

EFT Round 8: Choosing Peace and Calm

Eyebrow I choose to release this nervous energy.

Side of the eye I choose to do the things that I can do now.

Under the eye And release all this stress about the things I can do in the future.

Under the nose I choose to trust myself to do what is necessary.

Chin I choose to clear my mind.

Collarbone I choose to relax a little and take a deep breath.

Under the arm I choose to feel good knowing that I am smart and responsible.

Top of the head I choose to feel calm and confident.