Brief Group Intervention Using EFT (Emotional Freedom Techniques) for Depression in College Students: A Randomized Controlled Trial

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Abstract

238 first year college students were assessed using the Beck Depression Inventory (BDI). Those with clinical levels of depression were randomly assigned to either a treatment or control group. The experimental group received four 90 minute group sessions of EFT (Emotional Freedom Techniques), a novel treatment that combines exposure, cognitive restructuring, and somatic stimulation. The control group received no treatment. Posttests were conducted three weeks later on those that completed all requirements ($N = 18$). In the no treatment group ($n = 9$), the passage of time produced no significant improvement (BAI mean pre = 20.33 SD ±2.1; post = 18.04 SD ±1.8). EFT group subjects ($n = 9$) improved significantly, with mean scores going from the moderate/severe depression range to the non-depressed range ($p = 0.001$; BAI mean pre = 23.44 SD ±2.7; post = 6.08 SD ±1.8). These results are consistent with those noted in other studies of EFT that included an assessment for depression, and indicate the clinical usefulness of EFT as a brief but efficacious treatment for depression.

Keywords: students, depression, group therapy, EFT (Emotional Freedom Techniques), energy psychology.

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Depression is a common condition in teenagers. Reviews by the National Institutes of Health (NIH) have found that some 20% of adolescents suffer from bouts of anxiety and depression before they reach adulthood (NIH, 2008). In adolescents, depressed mood is common because of the normal maturation process, the stress associated with it, the influence of sex hormones, and independence conflicts with parents. Depression may also be a reaction to a disturbing event, such as the death of a friend or relative, relationship problems, or failure at school. Women are 2 to 3 times more likely to experience major depression (Potokar & Thase, 2003). According to the National Comorbidity Survey (NCS), prevalence rates for major depression are consistently found to be higher in younger individuals than older ones. Depressive episodes generally last for about 8 months; over 8% of adolescents suffer from depression that lasts a year or more, compared to 5.3% of the general population (NIH, 2008).

Biologically, depression has been related to reduced availability in the brain of the neurotransmitter serotonin, as well as a decrease in the volume of the hippocampus and the prefrontal complex, and increased activity of the right prefrontal cortex (Rubinow, Schmidt, & Roca, 1998; Krishnan, Taylor, McQuoid, MacFall, Payne, Provenzale, & Steffens, 2004). Adolescents who have low self-esteem, are highly self-critical, and who feel little sense of control over negative events are particularly at risk of depression when they experience stressful events (NIH, 2008). Depression puts adolescents at risk for abusing drugs and alcohol since they use these substances to self-medicate (Mondimore, 2002). The biological, social, and mental health sequelae of adolescent depression make effective treatment of this condition a high priority in mental health.

EFT (Emotional Freedom Techniques) is one of a group of therapies collectively referred to as “energy psychology” or EP. EFT has been shown to be efficacious for depression in a number of studies, including 2 randomized controlled trials (RCT). Brattberg (2008) measured depression in a sample of fibromyalgia patients undergoing an eight-week online EFT course. She found a significant reduction in depressive symptoms (-29%, $p < .02$). A second RCT, this time examining a population of 59 war veterans who received six sessions of EFT, also found a significant drop in depression, with scores going from clinical to sub-clinical levels (-58%, $p < .0001$) (Church, Hawk, Brooks, Toukoulehto, Dinter, Wren, & Stein, 2009). Participants maintained their gains on

follow-up. An RCT of teenagers treated with EFT for traumatic memories found that the experimental group experienced significant reduction of emotional triggering, and a return to normal values on the assessments, while the untreated control group did not improve over time (Church, Piña, Reategui, & Brooks, 2009).

Several outcome studies employing within-subjects designs found similar results. One examined the effects of a day-long EFT workshop delivered in group format to 216 healthcare workers (Church & Brooks, in press). It found a clinically and statistically significant drop in depression symptoms (-69%, $p < .0001$). A pilot study of veterans with comorbid PTSD and depression found a significant reduction in depression after 6 EFT sessions (-35%, $p < .001$) (Church, Geronilla, & Dinter, 2009). Another pilot study with veterans who received a weeklong treatment intensive found posttest scores for depression significantly lower than pretest (-85%, $p < .005$) (Church, 2010). A study by Rowe (2005) found that a weekend group EFT seminar significantly reduced depression (-68%, $p < .0001$). In all these studies, participants maintained their improvements during follow-up periods of between three months and one year. RCTs of EFT for anxiety in college students have also shown significant symptom improvements (Sezgin & Ozcan, 2009; Benor, Ledger, Toussaint, Hett, & Zaccaro, 2010).

EFT combines elements of several established therapies, such as exposure therapy and cognitive therapy, but adds the novel element of somatic stimulation. A typical EFT session has the client recall a traumatic incident. The memory is then rated on a Likert-type scale from 0 to 10, with 0 being no emotional intensity, and 10 being the maximum emotional intensity. This scale is referred to as SUD, Subjective Units of Distress (Wolpe, 1973). The emotional memory is then paired with a statement of self-acceptance, e.g. “Even though I saw my mother throw the lamp at my father during their argument, and I was very scared…” (exposure), “…I deeply and completely accept myself” (cognitive shift). The client may, for example, self-assess their emotional intensity at an 8 or a 9 for a troubling event. While keeping the incident in mind, the client then rubs or taps on a series of acupressure points on the face, torso, and hands (somatic stimulation). The client then self-rates the intensity of the trauma on the 0 to 10 scale once again. If the number is still high, EFT is applied again, till the SUD reaches a low number. Each application of EFT takes only a few minutes, but clients typically report a rapid

diminution of emotional triggering associated with the traumatic memory. EFT originated in the early 1990s when Gary Craig simplified an earlier EP method called Thought Field Therapy or TFT (Callahan, 2000). It is practiced with a high degree of uniformity since *The EFT Manual* (Craig, 2008) has been available as free online download since the inception of the method.

Besides quickly reducing affect, therapists have noted a lack of abreactions in clients using EFT (Mollon, 2007/2008; Flint, Lammers, & Mitnick, 2005). For these reasons, therapists report that EFT and other EP methods are a preferred treatment when dealing with traumatized clients (Schulz, 2009). In a therapy session, a client may use EFT on a series of emotionally triggering memories; even traumas of long duration are found to reduce in intensity, often to the surprise of the client and therapist (Feinstein, 2009). The parsimony of treatment required to treat PTSD, depression, and other psychological conditions has been noted in other studies; even complex PTSD may resolve in six EFT sessions (Church et al., 2009). Feinstein (2008a) reviewed the success of EP methods in resolving emotional trauma during natural and human-caused disasters using protocols as brief as a single session.

A single session of cognitive restructuring, paired with exposure, can significantly reduce PTSD symptoms (Salcıoglu & Basoglu, 2010). To these established methods, EFT adds the novel element of somatic stimulation. Protocols that include somatic component may be more effective in reducing affect than those that do not (Feinstein, in press; Baker, Carrington & Putilin, 2009; Waite & Holder, 2003). During exposure to emotionally troubling memories, Feinstein (2009) notes that acupressure reinforces cognitive restructuring, as well as having a calming effect on the client.

Acupressure point stimulation has been the subject of numerous brain imaging studies. Hui et al. (2000) found that acupuncture sends signals directly to the amygdala and other structures in the brain's limbic system that process fear. This work has been confirmed by others (Napadow, Kettner, Liu, Li, Kwong, … Hui, 2007; Dhond, Kettner, & Napadow, 2007; Hui, Liu, Marina, Napadow, Haselgrove, Kwong, . . . Makris, 2005). Fang et al. (2009) states that acupuncture produces "extensive deactivation of the limbic-paralimbic-neocortical system." Acupressure, in which pressure is applied to acupoints,

instead of the more familiar insertion of acupuncture needles, has been found to be as effective as needling (Cherkin, Sherman & Avins, 2009). Diepold and Goldstein (2008) tested the brain wave frequencies associated with fear before and after EP treatment. They found that when a traumatic memory is recalled, these frequencies are activated. After EP treatment, they normalize, and even on later follow-up, the recall of the traumatic memory by the client does not reactivate them. Other studies using qEEG have found that EFT normalizes brain function in traumatized patients (Lambrou, Pratt, & Chevalier, 2003; Feinstein, Eden, & Craig, 2005; Swingle, Pulos, & Swingle, 2004). Feinstein (in press) reviewed published EP research, elucidating its physiological mechanisms of action, and found that EP "quickly and permanently reduces maladaptive fear responses to traumatic memories and related cues." Lane (2009) reviewed the literature on the application of EP acupoint stimulation as a counterconditioning method in psychotherapy. He describes physiological mechanisms consistent with a lowering of the stress response, and a calming of the brain's threat-assessment apparatus. These include a reduction in the body's secretion of stress hormones such as cortisol, an increase in endogenous opioids, and a dampening of fear in the amygdala. This body of evidence provides a rationale for the current study, which examines the use of EFT for the treatment of depression in adolescent college students.

Method

For the current study, 238 first year BS Psychology students at the University of Santo Tomas, Manila, enrolled in the College of Science, were assessed using the BDI. Thirty met the inclusion criterion of having scores in the moderate to severe clinical range. They were randomly assigned to either an EFT or a no treatment group. The causes of depression listed by participants were personal appearance, romantic relationships, family problems, academic problems, socioeconomic status, and loss of a loved one.

The study was approved by the university, and all subjects signed informed consent forms. All EFT instruction was provided by a student who had trained in EFT, and who served as group facilitator. All assessments and the intervention took place at a location near the College of Science campus. Data was scored by a blind offsite biostatistician

(the third author). EFT was administered with fidelity to *The EFT Manual* (Craig, 2008). The first author has an EFT Cert-1 certifcation and a CEHP credential from ACEP, the Association for Comprehensive Energy Psychology.

The Beck Depression Inventory (BDI) is composed of 21 questions that assess the intensity, severity, and depth of depression in patients with psychiatric diagnoses (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The BDI has convergent validity with observer-rated measures diagnosing depression (Startup, Rees, & Barkham, 1992; Marton, Churchard, Kutcher, & Korenblum, 1991). It has been found to be an effective screening instrument for depression in adolescents (Barrera & Garrison-Jones, 1988).

Four EFT group therapy sessions were administered within three consecutive weeks. Each session lasted 90 minutes. Subjects were dropped from the study if they missed more than one session (n = 2 for EFT group), or failed to compete the final assessment (n = 4 for EFT group, n = 6 for no treat group). Posttests for both groups occurred at the end of the three-week period. Dropouts resulted in a final count of 18 students, and all analysis was performed on this sample. Of these, 3 were male, and 15 were female. One was 18 years old, 11 were 17, and 6 were 16. There were no adverse events. The reasons cited by dropouts were lack of time, conflicts with academic requirements, the pressures of exams and class assignments, and forgetting a required group class or assessment completion meeting. See Figure 1 for CONSORT flow chart.

Results

First, a t-test was conducted to compare baseline BDI scores between the two groups to determine initial equivalence between the groups. A statistically significant difference between groups ($t(16)=2.749$, $p=0.14$) was found indicating greater depression in the EFT experimental group (see Table 1). Due to the lack of equivalence between the two groups, an analysis of covariance (ANCOVA) controlling for baseline scores was conducted on the posttest BDI scores. A statistically significant group effect was found ($F(1,15)=18.79$, $p=0.001$). The EFT group had significantly lower BDI depression scores (see Table 2) posttest.

Table 1. Pre-test BDI Means and Standard Deviations - t-test Results

Group	N	Mean ±SD
1	9	23.44 ±2.7
2	9	20.33 ±2.1

Table 2. Posttest BDI Means and Standard Error Controlling for Pre-test – ANCOVA Results

Group	N	Mean ±SD
1	9	6.08 ±1.8
2	9	18.04 ±1.8

The clinical significance of these findings is that both groups scored in the moderate-severe level for depression on pretest. On posstest the EFT group scored in the non-depressed range on the BDI.

Discussion

Treating depression in adolescents has inherent clinical value. Depressive episodes in adolescents result in a high risk of subsequent depression (Kovacs, Feinberg, Crouse-Novak, Paulauskas, Pollock, & Finkelstein, 1984). Depression in adolescents is associated with in adults with affective disorder, as well as an elevated risk of psychiatric treatment and hospitalization (Harrington, Fudge, Rutter, Pickles, & Hill, 1990). Adolescent depressive symptoms predict dysphoria as adults, as well as behaviors such as smoking, prescription drug use, illicit drug use, phobias, suicide, and an inability to establish close intimate relationships (Kandel & Davies, 1986; Ryan, Puig-Antich, Ambrosini, Rabinovich, Robinson, Nelson, Iyengar, & Twomey, 1987).

As well as the problems that individuals with depression may experience, the cost of depression to society is high. A review of the depression cost-analyses published in from 1970 to 1998 found that depression cost the US economy $65 billion a year in 1998 prices (Berto, D'Illario, Ruffo, Virgilio, & Rizzo, 2000). Depressed adults are estimated to cost their employers $1,800 per year (Wang, Simon, Avorn, Azocar, Ludman, McCulloch … Kessler, 2007). The effect of untreated mental illness is not confined to the individual; the entire community in which they live can be affected (van der Kolk, McFarlane, & Weisaeth, 1996). For these reasons, quick and efficacious methods of treating adolescent depression can pay dividends to both individuals and society for decades subsequent to treatment, and are thus highly cost-effective.

There are several limitations to this study. One is the lack of an active comparator condition. An active control group using an intervention such as cognitive behavior therapy, which has demonstrated efficacy for depression when delivered to groups, would control for expectancy effects, as well as nonspecific effects of treatment such as sympathetic attention. A second limitation is the lack of a follow-up data point to determine if participant gains are maintained over time. In an EP research review, Feinstein (2008b) notes that in all studies of EFT that included a follow-up assessment, results held. An extension of the present study that includes one or more follow-up assessments would determine if this effect is noted for depression in adolescents. A third limitation is the lack of a formal DSM-IV diagnosis of depression using observer-rated measures. Though the BDI has demonstrated convergent validity with observer-rated measures (Startup et al., 1992; Barrera & Garrison-Jones, 1988), an extension of this study should include a clinical diagnosis of depression by a licensed mental health professional.

The authors of this study speculate that other factors might play a role in the efficacy of EFT delivered to adolescents. One such factor is the level of training of the EFT provider. In the current study, the EFT intervention was delivered by a student with only an introductory level of training in EFT. It is possible that providers with greater training, such as licensed mental health professionals with specializations in group therapy and major depressive disorder, will perceive therapeutic cues from participants that are missed by nonprofessionals. Professionals might utilize efficacious methods, drawn from their clinical experience, that are beyond the scope of practice of a novice EFT provider, to produce greater effects in participants. It is also possible that the authors might be mistaken, and that peer-to-peer delivery, despite its clinical limitations, might be more effective than delivery by professionals.

Secondly, the authors hypothesize that more sessions of EFT might produce a greater effect. The research plan for the current study originally called for $N = 70$ and 12 sessions, but faculty skepticism concerning the efficacy of EFT led to the reduction of both by more than half. Cognitive dissonance at the speed of resolution of psychological problems when EFT is employed is common, and has been noted as a major barrier to the acceptance of EP therapies in the mental health profession (Feinstein, 2009).

Thirdly, delivery of EFT in groups should be compared to individual therapy sessions, in order to determine which is more efficacious. Other studies have noted efficacy for depression in EFT group therapy (Rowe, 2005; Church & Brooks, in press). While the authors of the current study assume that nonspecific factors such as sympathetic attention and therapist allegiance would make individual sessions more effective, the existing group studies, as well as the possibility that self-application between sessions is a major therapeutic ingredient, make a comparison between the two of interest. Additionally, the cost-effectiveness of group application argues for empirical evaluation of its efficacy when compared to individual treatment sessions.

Conclusions

In the current study, 238 first year psychology students were assessed for depression using the Beck Depression Inventory (BDI). 30 were found to have scores indicative of moderate to severe depression, were enrolled in the study, and randomly assigned to either an EFT group or a no treatment control group. After four 90-minute group EFT sessions, the treatment group no longer met the BDIs clinical criteria for depression, while the control group did not improve significantly. These results are consistent with other published reports indicating that brief courses of EFT are efficacious in treating depression. Further research is required to determine if self-reports correlate with observer-rated measures, how EFT compares to an active control, whether individual sessions produce greater effects than group sessions, whether EFT peer counseling is as effective as mental health administration, whether the results hold over time, and whether more sessions of EFT produce a greater effect.

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Figure 1. CONSORT Flow Chart