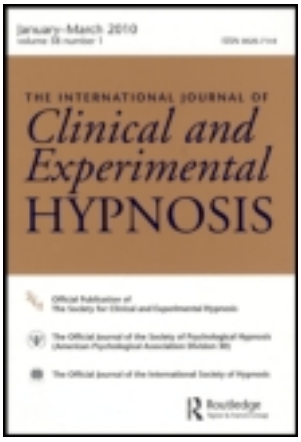

International Journal of Clinical and Experimental Hypnosis

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/nhyp20

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Version of record first published: 15 Nov 2012.

To cite this article: Ciara Christensen , Arreed Barabasz & Marianne Barabasz (2013): Efficacy of Abreactive Ego State Therapy for PTSD: Trauma Resolution, Depression, and Anxiety , International Journal of Clinical and Experimental Hypnosis, 61:1, 20-37

To link to this article: http://dx.doi.org/10.1080/00207144.2013.729386

Intl. Journal of Clinical and Experimental Hypnosis, 61(1): 20–37, 2013

ISSN: 0020-7144 print / 1744-5183 online
DOI: 10.1080/00207144.2013.729386

Routledge
Taylor & Francis Group

EFFICACY OF ABREACTIVE EGO STATE THERAPY FOR PTSD: *Trauma Resolution, Depression, and Anxiety*[1,2]

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Abstract: Using manualized abreactive Ego State Therapy (EST), 30 subjects meeting *DSM–IV–TR* and Clinician-Administered PTSD Scale (CAPS) criteria were exposed to either 5–6 hours of treatment or the Ochberg Counting Method (placebo) in a single session. EST emphasized repeated hypnotically activated abreactive "reliving" of the trauma and ego strengthening by the cotherapists. Posttreatment 1-month and 3-month follow-ups showed EST to be an effective treatment for PTSD. Using the Davidson Trauma Scale, Beck Depression II, and Beck Anxiety Scales, EST subjects showed significant positive effects from pretreatment levels at all posttreatment measurement periods in contrast to the placebo treatment. Most of the EST subjects responded and showed further improvement over time.

Prevalence Rates of Posttraumatic Stress Disorder and Trauma

Results gleaned from The National Comorbidity Study, which employed a large representative sample of more than 5,000 United States adults, revealed the lifetime prevalence of ***posttraumatic stress disorder*** (PTSD) is between 6.8% and 7%. The prevalence rate for PTSD is about 3.6% and, as indicated by these findings, appears to be higher in women than in men (Friedman, 2007). In the United States, about 60% of men and 50% of women have experienced psychological trauma (defined as a threat to one's life or that of a significant other) at some time in their lives. In addition, more than 25% of Americans have experienced more than one traumatic event (Friedman, 2007). However,

Manuscript submitted May 11, 2012; final revision accepted July 11, 2012.

[1]This study won the 2012 Ernest R. Hilgard "Best Thesis" Award from the American Psychological Association. Bestowed by Division 30–Society for Psychological Hypnosis. Ciara Christensen's dissertation was chaired by Arreed Barabasz.

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as Friedman notes, the percentage of those exposed to trauma varies significantly depending on the country (e.g., in a country with internal conflict such as Algeria, 95% of the population have been exposed to at least one traumatic event in their life).

How to best help individuals cope effectively with traumatic events has been subjected to little empirical research (Vermetten & Christensen, 2010). The impacts of traumatic events are highly individualized. Encoding of traumatic experiences tends to be distinct from ordinary events. They are typically sudden, create discontinuities with prior experience, involve arousal of intense affect (including fear, anger, and sadness), activate subcortical structures and may create conflicting patterns of association (e.g., a parent previously viewed as loving and protective is seen as sexually abusive; D. Spiegel, 2006). Traumatized individuals often show a decline in their functioning. This decline is thought to be attributed to the trauma experience that then erodes their ego capacities (Van der Kolk, 2002). The deterioration of ego capacities has an adverse affect on one's self view (safe, worthwhile, and loved versus in danger, worthless, and hated) and especially in children can create conflicting psychological networks of information (D. Spiegel, 2006; Van der Kolk, 2002).

The discovery that sensory input stimulates hormonal secretions and influences the activation of brain regions involved in attention and memory indicates that conscious control over the patient's actions is limited (Van der Kolk, 2007). This is important in the understanding and treatment of individuals who have experienced trauma or traumatic events, including Combat Stress Injury (CSI) and Acute Stress Disorder (ASD), which lead to PTSD. That reminders of the past can activate certain neurobiological responses helps explain why survivors of trauma are vulnerable to reacting with irrational and subcortically initiated responses that are irrelevant—and even harmful—in the present (Van der Kolk, 2007). These triggered responses are typically coupled to ego state dependent defense mechanisms learned in early life (Barabasz & Christensen, 2009a, 2009b). Hence, a stimulus associated with the trauma experienced in the past becomes present (Van der Kolk, 2002). Given such unwanted symptoms and distress, it is important to develop and test ways to help those with PTSD overcome their traumas.

Abreactive techniques bring about emotional catharsis as a special form of release therapy. It is by this form of treatment, performed with the use of hypnosis, that Freud discovered unconscious processes and proceeded to the development of psychoanalysis (Freud & Breuer, 1953). The principle involves the revivification of an emotionally disturbing experience that happened to an individual much earlier and the release of the affect that has presumably been bound up in that experience. When successful, the result is a great feeling of relief to

the individual and often the dramatic disappearance of the individual's psychopathology related to that experience (Barabasz, Barabasz, & Watkins, 2011, 2012).

As Watkins and Barabasz (2008, p. 58) explain, if you wish to boil some water in a container with a lid, in a microwave, and set the heat too low or the time too short, the water will not boil. Hence, you will see no bubbles or steam, and it can be inferred that insufficient energy has been added to the water. Thus, it is "understimulated." If the water is to boil, additional energy/heat (stimulation) must be applied. However, if too much heat is applied to the water in a glass container with a very tight lid, where the steam cannot escape, stress and tension will develop. Likewise, when an organism has received excessive stimulation (such as in trauma), and it has been inadequately released (or completely contained as in the water example with a very tight lid), then the person suffers from anxiety (tension) and likely will present with a number of maladaptive symptoms. Abreaction is like a release valve on our vessel of water. It operates to release tension stemming from excessive stimulation (Watkins & Barabasz, 2008, p. 58). The individual emotes, and the amount of tension/stimulation is lowered to a more tolerable level.

Abreactions occur spontaneously to relieve tensions and reduce excessive stimulation as part of normal human self-maintenance. It is only when the "safety valves" have been unable to open overtly and spontaneously and to release the bound affect that a psychotherapist must initiate the procedure to help the patient surmount the blocks that prevent his or her natural defenses from operating. Therefore, an abreaction can be understood to be a therapeutic technique for dealing with tension caused by excessive stimulation that is bound up and has not been released through normal channels of behavior and experience (Barabasz, 2008a, 2008b, 2008c).

Although Freud failed to pursue testing hypnotic abreactions, Pierre Janet (1907) did explore them further and became convinced of the value of emotional discharge. He employed the procedure extensively to test the effects, often inducing crying spells in patients, which he felt needed considerable repetition if the relief from the symptoms was to be permanent.

Brown (1920) treated several cases of war neuroses and maintained complete and rigorous chart notes to track progress, successes, and failures. He concluded that the cathartic liberation of pent-up feelings brought dissociated segments of the personality back into contact with the ego, thus resulting in a reintegration of the patient. Only after such therapy did the patients begin to move toward full functioning again. Brown deserves credit (Watkins & Barabasz, 2008, p. 59) for recognizing that emotional release must be intensive, continued to exhaustion, and repeated. He also recognized that such releases must be followed by reassurance and interpretation if symptomatic release was to be

permanent. These conclusions were based on the treatment of thousands of cases of what was then termed "war neuroses" today better understood as CSI, which led to what is understood as PTSD.

It then took the Second World War and the work of Grinker and Spiegel (1945) to provide further data. Grinker and Spiegel conducted many abreactions with Air Force personnel who had developed anxiety reactions following bombing raids over Germany. It was during this same World War II period that Watkins (1949) developed and refined the technique. Hypnotic abreactions were used almost exclusively in treating patients who were hospitalized after "emotional break downs" (CSI) during combat. These cases are described in Watkins's (1949) classic book *Hypnotherapy of War Neuroses*.

The trauma neuroses of war led to Watkins's development of Ego State Therapy (EST). The war neuroses beginning as CSI are now included within PTSD as described in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. [*DSM–IV–TR*]; American Psychiatric Association, 2000; Watkins & Barabasz, 2008). Combat PTSD first became well known after the Vietnam War. The symptoms found in civilian cases are similar to those precipitated by combat that were treated using cathartic techniques (Brown, 1920) to release emotions and to foster reintegration. They included anxiety, depression, flash backs, dissociations, as well as overt psychotic reactions.

A criticism of cathartic therapy comes from studies that do not meet the diagnostic criteria for PTSD or CSI/ASD, which appear to show that the acting-out of experimentally induced anger in a research subject not only fails to provide true release but may even increase angry behavior (Berkowitz, 1973; Keet, 1948). However, when Nichols and Zax (1977) conducted a controlled study involving actual patients, they concluded quite the opposite and found "definite support for the effectiveness of emotive techniques in stimulating catharsis and at least partial support for the effectiveness of catharsis to produce improvement in psychotherapy" (see Watkins & Barabasz, 2008, p. 64).

One of the problems with attempts to study the effects of the release of "repressed rage" in the laboratory is that such studies are set up to meet the demands of a laboratory situation rather than a clinical one and that immediate frustrations are experimentally induced. This is not representative symptom-causing stimuli in patients and cannot, in any realistic way, be compared with the neurotic, long-term, repressed affect stemming from, say, childhood abuse or acute trauma stress such as CSI. Furthermore, none of these laboratory studies continued the anger release to the point of physical and emotional exhaustion! There was no interpretation or egotization of symbolic meanings to achieve reintegration afterward.

The purpose of this investigation was to determine whether or not a manualized single 5- to 6-hour EST session is an effective treatment for

PTSD. The theoretical basis for a manualized single-session approach is elucidated elsewhere (Barabasz et al., 2011).

Method

Participants

The final sample consisted of 30 adult volunteers who met *DSM–IV–TR* criteria (American Psychiatric Association, 2000, pp. 467–468) for PTSD from Washington and Idaho. Subjects who had severe suicidal ideation (Bryant, Moulds, Guthrie, & Nixon, 2005) scoring 21 or greater on the Modified Scale for Suicidal Ideation (MSSI; Miller, Norman, Bishop, & Dow, 1986) or who presented with significant comorbid disorders were excluded. Subjects were assigned in balanced order to either the EST treatment or an active control group. The EST treatment group consisted of 13 females and 2 males ($n = 15$, age range 19 to 56 years, $M = 35.5$ years). The active control group consisted of 7 females and 8 males ($n = 15$, age range 19 to 64 years, $M = 40$ years). Hypnotic Induction Profile (HIP; H. Spiegel, 1977) scores revealed all participants were hypnotizable (EST group: $M = 8.13$, $Mdn = 8$, range 4–10; active control group: $M = 8.4$, $Mdn = 8$, range 7–10) and ethnic distribution included 3 Asian Americans, 1 Latin American, 1 Middle Eastern, and 25 Caucasian Americans.

Experimenters

Experiment therapists included the first author (CC), who had 120 hours of training in clinical hypnosis including a four-semester credit hour university course, plus workshops at from the Society for Clinical and Experimental Hypnosis (SCEH), International Society of Hypnosis (ISH), and the German-Nepal Medical Conference. Training in PTSD was from Arreed Barabasz, Bessel van der Kolk, PhD, and from the EMDR Institute (eye movement desensitization and reprocessing). The second experimenter-therapist was the second author (AFB), a licensed psychologist and a diplomate of the American Board of Professional Psychology who has published and presented on hypnosis at trauma conferences worldwide.

Instruments

Davidson Trauma Scale (DTS; Davidson et al., 1997) comprises 17 items corresponding to each of the 17 *DSM–IV–TR* symptoms. The items are categorized into three specific areas. Items 1–4 and 17 are designed to assess for *DSM–IV–TR* Criteria B (intrusive reexperiencing); Items 5–11 are designed to assess for Criteria C (avoidance and numbness); and Items 12–16 are designed to assess for Criteria D

(hyperarousal). Each item is rated by the participant for both frequency and severity on a 5-point (0 to 4) scale for a total possible score of 136 points.

Comparisons of DTS scores at baseline and scores obtained 2 weeks later generated a significant test-retest reliability coefficient ($r = .86$; $p > .001$). To assess convergent validity with other PTSD rating scales Davidson et al. (1997) compared DTS total scale scores with the Clinician Administered PTSD Scale (CAPS; Blake et al., 1990) and the Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979). The correlations were .78 ($p < .0001$) for the CAPS and .64 ($p < .0001$) for the IES.

The CAPS is intended for use by those with working knowledge of PTSD (Blake et al., 1995). The scale also assesses the 17 core symptoms of PTSD as outlined in the *DSM–IV–TR*. The CAPS is reviewed by Barabasz, Barabasz, Christensen, French, and Watkins (2013) in this issue of the *International Journal of Clinical and Experimental Hypnosis* (*IJCEH*).

The MSSI is a modified version of the Scale for Suicidal Ideation (SSI; Beck, Kovacs, & Weissman, 1979) and was developed for use by paraprofessionals but lends itself well for professional practice and research. The MSSI can be administered in 10 minutes or less to assess suicide symptoms over the past year. It is an 18-item scale that contains 13 items from the SSI and five additional items. The additional items are related to intensity of ideation, courage and competence to attempt, and talk and writing about death. The additional items, in our opinion, are particularly useful in the assessment of those with a CSI history. Each item is rated on a 0- to 3-point scale and the ratings are summed to yield a total score ranging from 0 to 5. Participants who scored 21 or above were excluded from the study.

Data from 54 inpatients who were administered the entire MSSI indicated that the items on the MSSI demonstrated a high level of internal consistency (coefficient alpha = .94; Miller et al., 1986) and good item-total correlations ranging from .41 to .83 (Miller et al., 1986). Additionally, the MSSI has established a test-retest reliability ($r = .65$) at 2 weeks (Clum & Yang, 1995). Concurrent validity of the MSSI has also been established. The MSSI has a moderately high correlation with the SSI ($r = .74$; Clum & Yang, 1995) and a moderate correlation with the suicide items from the Beck Depression Inventory ($r = .60$; Miller et al., 1986).

The Beck Depression Inventory–II (BDI–II; Beck, Steer, & Brown, 1996) is a 21-item self-report instrument intended to assess the existence and severity of symptoms for self-reported depression. The coefficient alpha of the BDI–II for 140 outpatients was .91, which indicates high internal consistency (Beck et al., 1996). Beck and colleagues found that for patients who were tested before their first and second therapy sessions the 1-week test-retest reliability was high (.93). Convergent

validity of the BDI–II was assessed by administration of the BDI–1A and the BDI–II to two subsamples of outpatients ($N = 191$) that yielded a correlation of .93 ($p < .001$.).

Beck Anxiety Inventory (BAI; Beck & Steer, 1993) was developed to reliably discriminate anxiety from depression. The BAI is a 21-item self-report instrument that assesses the overall severity of anxiety (Steer, Rissmiller, Ranieri, & Beck, 1993). Upon administration, participants are asked to rate the severity of each symptom using a 4-point scale, which ranges from 0 (*not at all*) to 3 (*severe*). As reported by Beck, Epstein, Brown, and Steer (1988) the BAI has established test-retest reliability. In a sample of 83 outpatients, a 1-week test-retest reliability of .75 ($p < .001$) was generated. Fydrich, Dowdall, and Chambless (1992) have confirmed the reliability of the BAI for outpatients who met diagnostic criteria for anxiety disorders as defined by the *Diagnostic and Statistical Manual of Mental Disorders*, third edition, revised (*DSM–III–R*; American Psychiatric Association, 1987). With respect to convergent validity, De Ayala, Vonderharr-Carlson, and Kim (2005) reported correlations in the range of .47 to .81 between the BAI scores and scores on the Cognition Checklist Anxiety subscale (Beck, Brown, Steer, Eidelson, & Riskind, 1987), the State-Trait Inventory (Kabacoff, Segal, & Hersen, 1997), the Anxiety subscale of the Symptom Checklist–90–Revised (Steer, Ranieri, & Beck, 1993), and the Hamilton Rating Scale for Anxiety (Beck & Steer, 1993).

The HIP was developed by Herbert Spiegel (1977) in response to the need for a measuring instrument specific to the clinical situation, which was rapid and could be easily integrated into the diagnostic interview (Frischholz, et al., 1980; H. Spiegel & Spiegel, 2004). Unlike other measures of hypnotizability (e.g., Stanford Hypnotic Susceptibility Scale: Form C; Weitzenhoffer & Hilgard, 1962), which can often take an hour or more to administer, the HIP can be administered within the range of 5 to 10 minutes. The HIP comprises three major components: the eye roll (a presumed biological trance capacity); subjective reports of hypnotic experience (dissociation, involuntariness, and sensory alteration); and behavioral change (response to a challenge to the arm levitation and response to a cutoff signal ending the hypnotic experience) (H. Spiegel & Spiegel, 2004, p. 42). The HIP correlates moderately but significantly ($r = .63$, $p < .001$) with the SHSS:C (Frischholz et al., 1980). H. Spiegel and Spiegel (2004, p. 43) note that the significant correlations between the HIP and the SHSS:C indicate that the scales are in the same domain but do not measure exactly the same thing. The HIP was chosen for the present study because of its brief administration time.

This investigation involved two investigator-therapists (CC & AB) with a substantial difference in experience with clinical and experimental hypnosis; care was taken to establish interrater reliability.

Both investigator-therapists repeatedly reviewed the DVD,[5] "Herbert Spiegel Does the HIP on Four Subjects," and ran practice sessions on a number of volunteers. An interrater reliability (rank-order) of .93 was established using 9 university student volunteers.

Procedure

First, a telephone interview was conducted where volunteers answered a series of questions regarding their circumscribed traumatic event. This interview served as a prescreening to exclude those clearly not meeting the study criteria. Subjects were asked to explain their symptoms. If they were currently receiving treatment, they were asked to obtain consent from their health care provider to participate in this study. Next, during the initial part of the 5- to 6-hour session, the instruments described above were administered and scored. Subjects were assigned, being balanced for DTS scores and for gender and age, to either the EST or the active control groups.

EST group procedure. The five-phase procedure followed the research edition of the treatment manual (Barabasz, Christensen, & Watkins, 2010). All sessions were delivered using a cotherapy model where CC and AB alternated as primary therapists. A summary of the procedure appears in Barabasz et al. (2013/this issue) and details appear in Barabasz, Barabasz, Christensen, and Watkins (2012).

Active control group procedure. The 15 subjects in the active control group were exposed to a Veteran's Administration approved video treatment that provided them with general information about PTSD and the counting method (Ochberg, 1996). The counting method is intended for "mastering traumatic memories" (Johnson & Lubin, 2005). It aims to help subjects process their traumatic memories without evoking intense affect. This approach claims to help subjects identify avoidant responses and to process associated memories to reduce their fear response (Johnson & Lubin, 2005; Ochberg, 1996).

There are three phases. During the preparation phase, subjects learn the role avoidance plays in maintaining the arousal to the stimulus and the need to remember the trauma from beginning to end. Subjects are also introduced to how the counting procedure will help by having a definite end. The *counting phase* is used with the subject once a traumatic memory is identified. With the event in mind, the therapist begins by saying:

> What we are about to do is to go back and remember this event. I will be with you, counting slowly (at a rate of about one number per second)

[5]Special thanks to Stanford Medical School Professor David Spiegel, MD, for his guidance and for providing the DVD.

> from 1 to 100. Together we will re-visit the scene and then return. (Johnson & Lubin, 2005, p. 192)

After which the therapist commenced with counting. Emphasis is placed on the collaborative nature of the endeavor, and the instructions are designed to demarcate a boundary between the normal interaction of subject and therapist and the special interaction to be experienced during the counting procedure. In the review phase, the therapist asks subjects to recall aspects of their experience during counting. The conclusion highlights the importance of providing subjects with reassurance and positive affirmations. Subjects were then retested on the BDI–II, BAI, and DTS and again 1 and 3 months later.

Results

The DTS appeared to serve its purpose well as a pretreatment measure assessing for PTSD. However, for follow-up it was necessary to modify questions that included the word "ever" (e.g., "Have you *ever* had . . . ") because "ever" asks the subjects to answer the questions by referencing symptoms experienced prior to participation in the study, thus invalidating it as an accurate measure of posttreatment symptomatology. To control for this potential confound and, hopefully, preclude elevated response ratings on intensity and severity—which might have been generated as a result of the word "ever"—we modified our posttreatment administration of the DTS by removing the word "ever" from Questions 1 and 2. We also included a handwritten note with each set of measures reminding subjects to "Please keep in mind the event in which you initially reported/worked on during treatment as you answer each question." Despite this attempt to focus subjects on the circumscribed issue treated by the study conditions, letters sent by the subjects with their follow-up tests indicated some subjects answered the test questions based on issues beyond those brought to treatment. Undoubtedly, this type and pattern of response, which grew in frequency as the follow-up periods progressed, served to attenuate treatment effect scores.

Equivalence of Groups at Pretest

No significant differences were found between EST and active control groups at pretest for any measure: DTS: $F(1, 28) = 0.17$, $p > .68$; BDI–II: $F(1, 28) = 1.88$, $p > .18$; BAI: $F(1, 28) = 0.03$, $p > .87$.

The DTS was conceptualized to be the measure most directly relevant to the primary purpose of the study. Therefore, the initial analysis was computed on DTS scores via Statistical Analysis System as a two-way analysis of variance (2 groups $\times$ 4 measurement periods: pre-, post-,

1-month, and 3-month follow-up). Given that the two groups were not significantly different at pretest, had equal numbers and were matched by diagnosis, all effects were tested using Wilks' Lambda. This double classification analysis of variance (between/within split/plot) was computed with two treatment groups (ego state and active control) as the between-subjects variable and the four measurement periods (pre-, post-, 1-month, and 3-month follow-up) as the within-subjects variable. The means and standard deviations appear in Figure 1.

The analysis for both within-subjects, $F(3, 26) = 44.48$, $p < .001$, Wilks' Lambda = .1639, and between groups, $F(3, 26) = 8.24$, $p < .0005$, Wilks' Lambda = .5126, was significant. The interaction effect was significant, Trial × Group, $F(3, 84) = 5.44$, $p < .007$.

To test the hypothesis that subjects exposed to EST treatment would show significantly ($\alpha = .05$) lower Posttraumatic Stress Disorder symptom scores on the Davidson Trauma Scale (DTS) at posttreatment, univariate analyses of variance were computed. The results appear in Table 1.

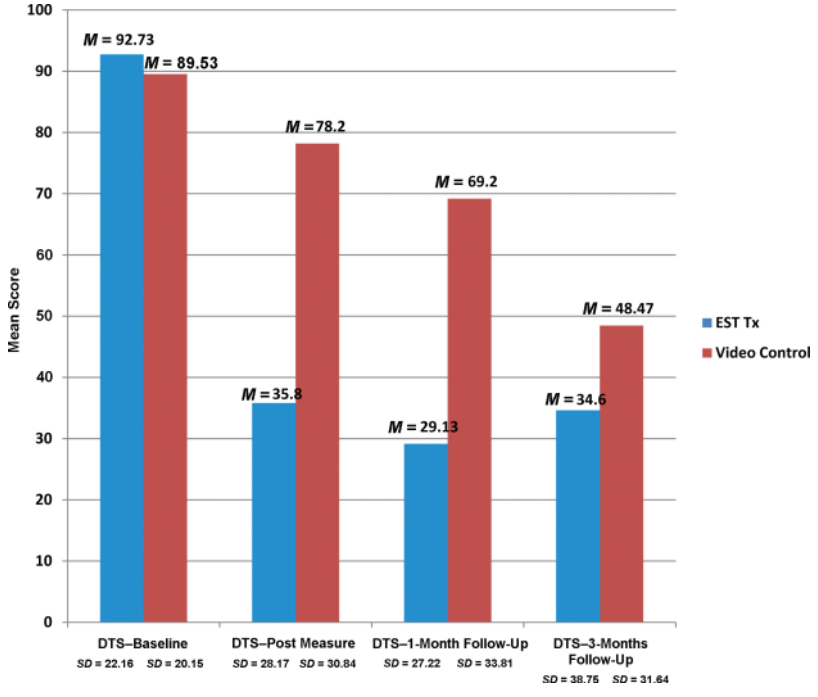

Figure 1. DTS results for EST treatment and VideoControl conditions for baseline, post Tx and video, 1-month, and 3-months follow-up (color figure available online).

Table 1
DTS Results for Posttreatment, 1-Month Follow-up, and 3-Month Follow-up in Contrast to Pretreatment DTS Scores

Measurement Period	*df*	*F*	R^2	$p <$
Posttest	1, 28	15.46	.36	.0005
1 month	1, 28	7.68	.22	.009
3 months	1, 28	1.15	.04	.29

The results presented in Table 1 indicate that EST produced a significant reduction in DTS symptom scores from pretest to posttest and one month follow-up but appeared not do so at the 3-month follow-up. The analysis failed to show significant effects at 3 months. However, inspection of the means reveals that the 3-month mean is numerically below the posttest mean. The seemingly nonsignificant effect is explained by the greater than 34% increase in variance (compared to posttreatment and 1 month data) that can be typical of small *N* therapeutic intervention studies. Essentially, what this means is that the lower mean reflects the continued improvement for the EST responsive PTSD patients. However, those who were less responsive to EST long term relapsed dramatically (DTS symptom scores over 100) in two, but only two, cases. Thus, the distribution of scores became nonnormal at 3 months. This violates the normalcy assumption required for parametric analyses.

A nonparametric approach was adopted to analyze the 3 months data. A Wilcoxon Signed-Ranks test revealed N_s-R = 15, $T = 0$, $p < .001$, showing that EST continued to have a significant effect on DTS scores at the 3-month follow-up.

To test the hypothesis that subjects exposed to EST treatment would show significantly ($\alpha = .05$) lower PTSD symptom scores on the DTS than those exposed to the active control group at posttreatment and at the 1-month and 3-month follow-ups, Tukey's Studentized HSDs were computed. The results indicated significant effects for EST versus the active control condition at posttreatment (Studentized critical value = 2.89, minimum significant difference 22.09, Control $M = 78.2$, EST $M = 35.8$, $p < .05$) and at 1-month follow-up (Studentized critical range = 2.89, minimum significant difference 22.95, Control $M = 60.20$, EST $M = 29.13$, $p < .05$). Due to the distribution of scores becoming nonnormal at the 3-month follow-up, the nonparametric Mann Whitney U test yielded a $z = 2.31$, $p < .05$, showing EST produced significantly lower DTS scores at 3 months than the active control condition.

To test the hypothesis that subjects exposed to EST treatment would show significantly ($\alpha = .05$) lower BDI–II scores at posttreatment, 1-month, and 3-month follow-ups in contrast to pretreatment, Wilcoxon

Signed Ranks tests were calculated for each data collection period. The results showed significantly lower BDI–II scores at posttest (N_s-R = 15, $T = 6.2$, $p < .001$), at 1-month (N_s-R = 15, $T = 1.5$, $p < .001$), and at 3-month follow-up (N_s-R = 15, $T = 7$, $p < .001$).

To test the between-groups hypothesis that subjects exposed to EST treatment would show significantly ($\alpha = .05$) lower depression scores on the BDI–II than those exposed to the active control group at posttreatment and the 1-month and 3-month follow-ups, Tukey's Studentized Hades were computed. The results indicated significant effects for EST versus the active control condition at posttreatment (Studentized critical value = 2.90, minimum significant difference = 7.90, Control $M = 21.73$, EST $M = 5.80$, $p < .05$). Given that the score distributions were not normally distributed at 1 month and 3 months, Mann-Whitney U tests showed EST produced significantly lower BDI–II scores versus the active control condition at 1 month ($z = 3.77$, $p < .01$) and at 3 months ($z = 2.42$, $p < .05$).

To determine the effects of EST as measured by the BAI, a double classification analysis of variance (between/within split plot) was computed with two treatment groups (EST and active control group) as the between-subjects variable and time of measurement (pre-, post-, 1-month, and 3-month follow-ups) as the within-subjects variable.

The analysis for within-subjects produced a significant result, $F(3, 26) = 21.46$, $p < .0001$, Wilks' Lambda = .28. The analysis for between-groups also produced a significant result, $F(3, 26) = 7.13$, $p < .001$, Wilks' Lambda = .54. As in the BDI–II results section, the BAI interaction was viewed as meaningless given the nonnormal distribution of scores at 1-month and 3-month posttreatment data collection points.

To test the within-groups hypothesis that subjects exposed to EST treatment would show significantly ($\alpha = .05$) lower BAI scores at posttreatment in contrast to pretreatment, a univariate analysis of variance was computed. The results, $F(1, 28) = 15.4$, $R^2 = .35$, $p < .0005$, show EST produced significantly lower BAI scores at posttest versus pretreatment. Given that the scores were not normally distributed for 1-month and 3-months follow-ups, Wilcoxon Signed Ranks showed EST produced significantly lower scores than pretest at 1 month, N_s-R = 15, $T = -3$, $p < .001$, and at 3 months, N_s-R = 15, $T = 2$, $p < .001$.

To test the between-groups hypothesis that subjects exposed to EST treatment would show significantly ($\alpha = .05$) lower anxiety scores on the BAI than those exposed to the active control group at posttreatment, Tukey's Studentized HSD was computed.

The results indicated significant effects for EST versus the active control condition at posttreatment (Studentized critical value = 2.90, minimum significant difference 7.13, Control $M = 20.6$, EST $M = 6.93$, $p < .05$). Again, given that the scores were not normally distributed at 1 and 3 months follow-up, Mann Whitney U tests were calculated. The

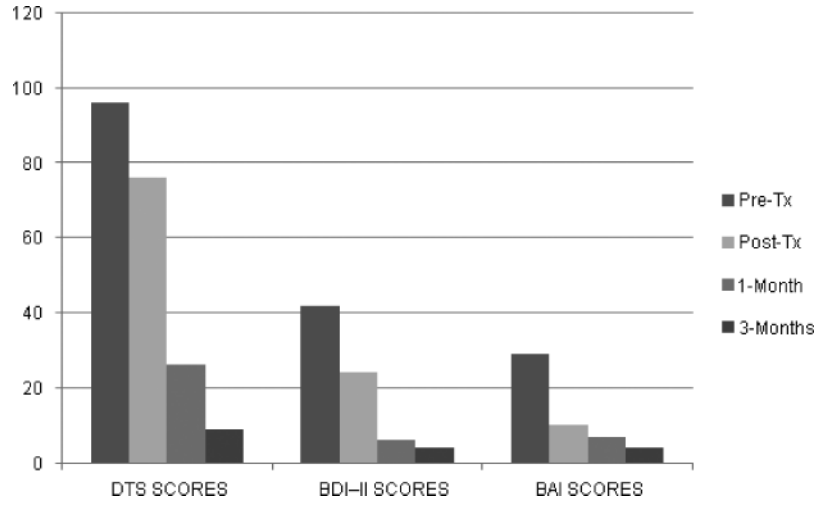

Figure 2. Distribution of Cl.5's scores pre- and posttreatment and at 1- and 3-month follow-up.

results showed EST produced significantly lower BAI scores than the active control condition at 1 month, $z = 2.44$, $p < .05$, and at 3 months, $z = 4.9$, $p < .01$.

As revealed above, most of the EST subjects responded very well to the treatment session. What is not apparent in the group analyses is the typical distribution of scores for these subjects. The distribution for one of the subjects typical of the majority cured by EST subject appears in Figure 2.

Discussion

This study, in concert with our independent investigation (Barabasz et al., 2013/this issue), represents the first placebo-controlled investigation of the efficacy of abreactive EST for PTSD and the first research on EST to have met evidence-based criteria (Chambless & Hollon, 1998). The present study shows that a 5- to 6-hour single session of manualized abreactive EST for PTSD is not only a highly effective posttreatment but is also durable over time. Significant treatment effects compared to pretreatment scores and the active treatment control condition were found immediately posttreatment and over repeated follow-ups on PTSD symptoms and the Beck depression and anxiety scale scores.

Unlike efficacy studies using only an attention placebo, our control group was exposed to the Ochberg (1996) counting method. This

well-known treatment for PTSD included elements of event-recall exposure, desensitization, and the presence of therapeutic ego support. Despite these likely active treatment features in our control condition, the manualized abreactive EST treatment showed remarkable effects in comparison. The effects of EST were clinically as well as statistically meaningful. The EST effects were not only maintained over time but the patients who emerged as successfully treated, which constituted the majority of the EST group, continued to report further improvement by reducing their DTS scores over the follow-up measurement periods. We view this finding as supportive Watkins's contentions regarding the positive effects of developing communication among a person's ego states (Barabasz, 2008a, 2008b, 2008c; Watkins & Barabasz, 2008, Chapter 10). Such fluid communication makes it possible for a person to continue to resolve internal disputes. This leads to a stronger and more adaptive (reconstructed) personality where the core self is more likely to be resilient to retraumatization.

Consistent with Kernberg (1987) who noted that constant therapeutic effort is required of the therapist to bridge the independently expressed conflicting ego states to facilitate resolution, abreactive hypnosis was employed in the presence of two therapists who interacted with subjects to add supportive ego strength during the reliving of the trauma event. Such interaction made it possible for subjects to express, for example, anger toward the trauma aggressor. All EST subjects experienced a minimum of three physiologically and psychologically intense hypnotic abreactions continued to emotional and physiological exhaustion. Every abreaction was followed by supportive reintegration and interpretation using the hypnotic guides and scripts provided in the manual.

The sequential progressions of the hypnotic abreactions are of particular interest. The first hypnotic abreaction, as displayed by the majority of participants, was the most explosive. Subjects would yell, cry, punch pillows, kick or display a mixture of these responses. The second abreaction, although still emotionally charged, was less so than the first. By the third (or later) abreaction, responses were noticeably different, there was little to no yelling, punching, or kicking. As evidenced by the intense affect, the traumatized ego state(s) were activated.

This study, like Barabasz et al. (2013/this issue), garnered unsolicited positive feedback from all of the EST subjects on the efficacy and speed of EST. Comments were included with the follow-up measures. Subjects explained that their "traumatic memories" were "no longer troublesome" and "finally felt as though my family [of ego states] of self was integrated." No comments came from the control group.

Our choice of instruments was problematic; despite our diligent efforts to inform subjects to reply to posttest and follow-ups with regard to the trauma treated by EST and to answer within the posttreatment context for items calling for long-term responses, some subjects failed

to do so. Thankfully, rapport was so well developed during the intense session, subjects volunteered this information. The measures we chose are, therefore, not recommended for replications.

A substantive difference between the present study and the Watkins and Watkins (1997) case trials as well as Barabasz et al. (2013/this issue) experiment was the level of therapeutic experience. Only AB had considerable training and experience with EST, whereas CC was, at the time, a doctoral candidate with very limited clinical experience. This study was her first EST clinical cotherapist involvement. Despite this limitation, the results were overwhelmingly positive. This suggests that the manualized approach may serve to overcome limited experience for at least one cotherapist. The single-session manualized EST provided rapid and effective treatment for subjects suffering from PTSD and a thorough resolution of traumatic memories.

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Effizienz abreagierender Ego State-Therapie bei PTBS: Traumaauflösung, Depression und Angst

Ciara Christensen, Arreed Barabasz und Marianne Barabasz

Abstrakt: Unter Verwendung der standardisierten Ego State Therapie (EST) wurden 30 Personen, die den Kriterien des *DSM–IV–TR* und der Clinician-Administered PTBS Skala (CAPS) gerecht wurden, entweder einer 5 bis 6stündigen Behandlung oder der Ochberg Zählmethode in einer Einzelsitzung (Placebo) zugeteilt. Die EST bekräftigte das wiederholte, hypnotisch aktivierte abreagierende „Wiedererleben" des Traumas und die Stärkung des Ego durch die Cotherapeuten. Überprüfungen 1 und 3 Monate nach Behandlung zeigten, daß EST eine effektive Behandlungsmethode für PTBS ist. EST-Behandelte zeigten in der Davidson Trauma Skala, der Beck Depression II und Beck Anxiety Skalen signifikante positive Effekte

im Vergleich zu Daten vor der Behandlung zu allen Messungen nach der Behandlung, im Gegensatz zur Placebo-Behandlung. Die meisten der EST-Behandelten reagierten auf die Behandlung und zeigten auch im weiteren Verlauf Verbesserungen.

Stephanie Reigel, MD

Efficacité de la thérapie fondée sur l'abréaction du moi dans le cas du TSPT: résolution du tramatisme, dépression et anxiété

Ciara Christensen, Arreed Barabasz et Marianne Barabasz

Résumé: Dans le cadre d'une thérapie portant sur l'état du moi (TEM) par hypnose fondée sur l'abréaction manualisée, 30 patients satisfaisant aux critères du *DSM–IV–TR* et de l'échelle du TSPT administrée par un clinicien ont suivi, dans le cadre d'une séance unique d'une durée de 5 ou 6 heures, soit cette thérapie, soit la méthode de comptage Ochberg (une thérapie placébo). La TEM portait sur la revivification abréactive répétée du trauma par hypnose, avec renforcement de l'état du moi par les cothérapeutes. Les suivis effectués 1 mois et 3 mois après le traitement ont démontré que la TEM est un traitement efficace du TSPT. Évalués à l'aide de l'échelle de traumatisme de Davidson, de l'échelle de dépression de Beck II et de l'échelle d'anxiété de Beck, les sujets ayant suivi la TEM ont montré des effets positifs significatifs lors de toutes les évaluations post-traitement, comparativement au traitement placébo. La plupart des sujets ayant suivi la TEM ont bien réagi à la thérapie, et leur état s'est encore amélioré avec le temps.

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Eficacia de la terapia abreactiva de estados del yo para estrés postraumático: Resolución del trauma, depresión, y ansiedad

Ciara Christensen, Arreed Barabasz, y Marianne Barabasz

Resumen: Utilizando la terapia de estados del yo manualizada (TEY), se expuso a 30 sujetos, que alcanzaban los criterios del *DSM–IV–TR* y la Escala para el Trastorno de Estrés Postraumático Administrada por el Clínico (CAPS), a 5-6 horas de tratamiento o al Método Ochberg de Conteo (placebo) en una sola sesión. La TEY enfatizó la activación hipnótica repetida del "revivir" abreactivamente la experiencia traumática y el fortalecimiento yoico del coterapeuta. El postratamiento y el seguimiento a uno y tres meses mostraron que la TEY es un tratamiento efectivo para el estrés postraumático. Usando la Escala Davidson de Trauma, el Inventario de Depresión de Beck II, y las Escalas de Ansiedad de Beck, los sujetos TEY mostraron efectos positivos entre los niveles de pre-tratamiento y todas las mediciones post-tratamiento, en contraste con el tratamiento placebo. La mayoría de los sujetos TEY respondieron y mostraron mayores mejoras a lo largo del tiempo.

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