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A Systematic Clinical Demonstration of Promising

PTSD Treatment Approaches:

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Abstract

Traumatic Incident Reduction, Visual-Kinesthetic Disassociation, Eye Movement Desensitization and Reprocessing, and Thought Field Therapy were investigated through a systematic clinical demonstration (SCD) methodology. This methodology guides the examination, but does not test the effectiveness of clinical approaches. Each approach was demonstrated by nationally recognized practitioners following a similar protocol, though their methods of treatment varied. A total of 39 research participants were treated and results showed that all four approaches had some immediate impact on clients and appear to also have some lasting impact. The paper also discusses the theoretical, clinical, and methodological implications of the study.

A Systematic Clinical Demonstration of Promising

PTSD Treatment Approaches

Efforts to find an efficient and effective treatment for post-traumatic stress disorder (PTSD) have been slow. The field of traumatology has emerged nevertheless to claim the attention of researchers and clinicians trained in the traditional disciplines of psychiatry, psychology, social work, and nursing and practicing in those fields emerging more recently. Family therapy, psychobiology, neuroscience, and pharmacology are examples.

The research designs, statistical methods, and highly effective measurement devices from each of these fields have melded into the new field of traumatology. The last and most significant frontier for this new field to identify is a set of treatment approaches that lead to a significant reduction in the presenting problems of a set of clients.

The set of clients of most interest to traumatologists is traumatized people. One or more of a wide variety of traumatic stressors traumatized them. Examples include combat-related stressors, violence-related stressors, stressors associated with loss, and other sources.

This is the second in a series of reports on the "Active Ingredient Project" at Florida State University. An earlier article (Carbonell & Figley, 1996a) described the project in general terms, but the focus was on the therapist traumatized by events outside the office (the murder of a spouse) and an additional on line article (Carbonell & Figley, 1996b). This report will provide a description of the purpose, methodology, the first published results of the study, and a discussion of the results. Later reports will describe individually, and in more detail each of the four approaches examined here.

A recent article Green (1994) notes what many traumatologists now conclude, that we need to move beyond reiterating that traumatic events cause PTSD. Green calls for greater efforts to understand the basic processes to avoid and eliminate PTSD. She suggests that scientists move away from simply documenting the presence of PTSD. Rather, there should be more emphasis on studies of treatment, prevention, and basic etiological processes that will enhance our understanding of how human beings struggle to adapt to severely adverse environments, and how we can help them.

ManagedCarePressures

In addition, the demands of managed care have forced both practitioners and managers to face an intriguing set of facts. Specifically, although traditional psychotherapy takes time and motivation on the part of both the practitioner and client, managed care, and the economics associated with it, intensifies the need for efficient and effective treatments.

Partly as a way of illustrating the time commitment involved in therapy, Kopta, Howard, Lowry, & Beutler (1994) conducted archival research on the files of 854 patients who had more than 62 symptoms of acute distress, chronic distress, or characterological disorders. The team reviewed the records of a year or less of once-weekly psychotherapy sessions. Each client completed a symptom questionnaire at various points in his or her treatment program to indicate his or her recovery progress. The team calculated the "effective dose (ED) of psychotherapy" for 50 per cent of psychotherapy cases. The ED was defined as

the point at which the patient is more similar to normal functional persons than to dysfunctional peers. Thus, an ED50 is a kind of break even point in psychotherapy treatment. The investigators also calculated the ED75 or the effective dosage of 75 per cent of cases.

Kopta, et al. (1994) reported that for the most common acute-distress or chronic-distress symptoms. One hundred twenty sessions (120 hours) of treatment were required to relieve 75 percent of the depressed clients from the symptom of "worry too much." Given the average hourly cost of psychotherapy at full billing of \$75 per 50-minute session, the estimated cost would be a staggering \$1650 to reach the effective dosage (or number of psychotherapy sessions) for 75% of clients with depression.

Further, Kopta ET al reported that clients seeking significant clinical improvement with the symptom of "crying easily" require 22 sessions (50-60 minutes per session). Thus, it would cost would be \$1600. In contrast, for 75% of clients with anxiety seeking a similar level of relief for the symptom of "feeling tense" require 106 sessions at a cost of \$7950. Thus, the time and cost required today, utilizing standard methods of psychotherapy practice, to effectively treat (secure clinical improvement in) a wide variety of psychological problems is enormous. There appears to be no hope in sight for reducing these numbers.

CurrentStateofClinicalTraumatology

It is not surprising that the treatment of PTSD, which encompasses many of the symptoms reviewed by Kopta, et al. (1994), takes so long. A recent review of current treatments of PTSD, Solomon, Gerrity, & Muff (1992) conclude that the effectiveness with which we treat PTSD is less than sterling. Their meta-analysis of all published studies found that pharmacotherapy as well as psychotherapy through behavior, cognitive, psychodynamic and hypnotherapies were effective. However, no treatment approach reported even a partial success rate greater than 20% after 30 hours of treatment. Based on the Kopta, et al. (1994) study, there should be greater efficacy beyond 30 hours of treatment. Indeed, it would seem plausible that most clinicians would expect PTSD clients to be more difficult to treat than the presenting problems reviewed by Kopta, et al. (1994), a notion supported by Seligman (1994) who noted that only "marginal" relief is possible for those diagnosed with post-traumatic stress disorder.

Traumatized clients appear to require a special amount of emotional energy, both from the therapists and from themselves, to overcome the barriers imposed by their own fear and lack of hope (Figley, 1997). Clients often work hard to recall nearly all the details of the traumatic event and its aftermath. For many clients, these recall sessions may cause as much or more suffering than the original traumatic experiences when considering the

anxiety experienced prior to and during the therapy session. Those who have also experienced a tangible loss are especially vulnerable (Figley, Bride, & Mazza, 1997). And, as noted earlier, the effort often does not eliminate the symptoms caused by the traumatic experiences. It is not surprising so many who suffer from PTSD have abandoned hope of finding relief from their PTSD symptoms, and feel no hope of finding a permanent cure.

There have, however, been claims from the clinical community that apparently brief and effective treatments are available. Though these treatments not yet proven scientifically, perhaps clinicians responsible for treating clients presenting with PTSD are in a good position to provide sound hypotheses regarding treatment approaches that work and those that do not. Not only does their clinical work demand the most effective approach, but also their continuing education activities expose them to a variety of techniques. Although unorthodox in approach, perhaps these untested treatments deserve further examination.

Among the challenges of evaluating these new treatment approaches are questions such as: How do we know this is not just the latest in a series of fads that come and go, leaving disappointed clinicians and frustrated clients? How does one know if dramatic initial gains last over time?

One of the more challenging criticisms of brief treatment approaches or any other that can be replicated empirically is that they can be taught to, and used by paraprofessionals. Some argue that nearly anyone who is trained in these treatment methods can become effective--irrespective of formal education and credentials. Indeed, there are a large number of persons without formal mental health training and education who have attended training sessions in many of these approaches. There is genuine concern that the quality of care is significantly decreased when performed by non-professionals (Nietzel & Fisher, 1981).

But, several meta-analytic studies of comparing the effectiveness of psychotherapy between professionals and paraprofessionals seem to indicate that the quality of care is not diminished by the use of paraprofessionals. Durlak (1979), for example reviewed 42 studies and found most could not confirm that treatment provided by professionals is superior to that provided by paraprofessionals. Although Durlak found one study showed professionals to be superior the reverse was found in 12 other studies. Regarding measurable outcomes, Durlak concluded, "professionals may not possess demonstrably superior clinical skills when compared with paraprofessionals. Moreover, professional mental health education, training and experience do not appear to be necessary prerequisites for an effective helping person" (p. 80).

Later meta-analysis studies confirm this conclusion (Berman & Norton, 1985; Weisz, Weiss, Alicke, & Klotz, 1987). These studies are further supported by meta-analyses that have demonstrated a lack of overall effects of professional training and experience. Across 475 studies of psychotherapy outcome, Smith, Glass & Miller (1980) found no relationship between years of therapist experience and therapy outcome. Shapiro and Shapiro (1982) who reviewed 143 studies later confirmed this. Although part of the differences can be explained (Christensen & Jacobson, 1994), Shapiro & Shapiro acknowledge that it is more important for the field of psychotherapy to be overly modest than overly confident in their claims. And, it seems that concerns over quality of care provided by paraprofessionals may be unfounded.

The Research Program

Recognizing the mental health problem of traumatic stress and the lack of adequate methods of preventing and treating PTSD, a program was developed to examine and evaluate innovative methods of treating traumatic stress. Six goals were described: (1) identify the most promising psychological treatments of traumatic stress; (2) investigate these treatments utilizing a systematic clinical demonstration (SCD) methodology (Carbonell & Figley, 1996b) which expands on suggestions from Liberman and Phipps (1987); (3) collaborate (via the internet) with a large group of local, national, and international clinicians and scholars interested in the goals of the project to help investigate the treatments; (4) identify the active ingredients in each treatment and that appears to be successful in eliminating traumatic stress symptoms; (5) develop a testable, theoretical model that accounts for the process by which people become traumatized, display traumatic stress reactions, and recover from the traumatic experiences and no longer display these reactions; and (6) develop and test clinical guidelines for treating unwanted traumatic stress reactions.

Significance

This study represents a first step in evaluating innovative treatments that are used by some practicing clinicians and paraprofessionals, but are as yet unexamined under controlled conditions. represents an attempt to bring together both the academic and clinical communities in evaluating such approaches. In contrast to conventional psychotherapy research, the SCD methodology is not meant to compare the various treatments, and thus does not necessarily meet the criteria proposed for empirically validated treatments (Chambless, et al., 1996), although it does meet some of those criteria. But, it is hoped that such initial research will stimulate interest and encourage others who might ignore these unusual and relatively untested approaches to begin additional research on treatments that seem promising, however unorthodox they appear.

Method

Selection of treatment approaches to be evaluated

The first goal of the project was to select treatment approaches for evaluation. To select the approaches the researchers sought the advice of a large number of practitioners and researchers worldwide. The project and its goals emerged from discussions among these colleagues through a specially established Internet forum, currently called the Traumatology Forum¹, which now has a membership of approximately 900 individuals from over 16 countries. To select innovative and promising methods of treating symptoms of post-traumatic stress, a survey was sent to 10,000 members of the Internet consortium, InterPsych (Figley, 1994). They were asked to nominate treatments that were extremely efficient, and could be observed under laboratory conditions.

In addition to soliciting through the Internet, the authors contacted hundreds of clinicians to solicit treatment nominations. An advisory board made up of traumatologists who are part of the Traumatology Forum examined nominated treatments, regardless of how the nomination was obtained. From these discussions four approaches were identified for the initial phase of investigation: Traumatic Incident Reduction (TIR), Visual Kinesthetic/Disassociation (VK/D), Eye Movement Desensitization and Reprocessing (EMDR), and Thought Field Therapy (TFT). Each of these treatments was in use clinically, but had at that time a paucity of research examining their effectiveness. Other approaches were noted, such as various exposure-based, behavioral and cognitive treatments.

Investigation

The second goal of the project was to investigate treatments using a systematic clinical demonstration (SCD) methodology (Lieberman and Phipps, 1987). Since the treatments had not been examined extensively, we established an initial trial design that simply measured observed changes in the client. In medicine, phase I trials are primarily concerned with safety, not efficacy, and focus on determining deleterious side effects, optimal treatment doses, and so on. This phase may require as few as 20 patients, but usually no more than 80. Phase II trials are small-scale studies of treatment efficacy and safety and designed to closely monitor each patient for adverse events. Phase III trials are conducted after efficacy is reasonably established and involves hundreds of patients (Pocock, 1983). Our adaptation of the clinical trial methodology chiefly involves modification of the Phase I and II research components. In addition to the time and money saved, phase III trials can then focus on only the most promising treatment approaches for PTSD (Carbonell & Figley, 1996).

The innovators of each of these approaches were invited to form a treatment team to participate in the research project. To participate, the innovators were required to send a

treatment team to our laboratory for 7 to 8 days. These teams treated clients provided to them during that period of time and under the conditions imposed by the research design. Each of the four innovators of the treatment approaches provided a team of clinicians to participate. Each treatment approach is described below briefly.

TraumaIncidentReduction(TIR). The TIR treatment team was the first scheduled to participate (mid September). Gerbode (1988) described TIR as a Rogerian-based treatment method that follows a carefully crafted protocol. He asserted the result is a rapid method of traumatic memory retrieval that is both humane and empowering. The client, with little coaching from the therapist, can recall critical information about the nature and consequences of the traumatic events.

VisualKinestheticDisassociation(VK/D). This approach was represented by the second treatment team to participate in the study (mid October). VK/D, which is a component of Neurolinguistic Programming (NLP), is practiced internationally to eliminate phobia and trauma symptoms. It employs, among other methods, a "fast phobia trauma cure procedure," developed originally by Richard Bandler, which asks the client to focus on the causal origin of the traumatic stress. It establishes a 3-place dissociation method that reportedly enables the client to eliminate all affect associated with the stressor (MacLean, 1986; Einspruch & Forman, 1988; Andreas & Andreas, 1992).

EyeMovementDesensitizationandReprocessing(EMDR). This approach was represented by the third treatment team to participate in the study (mid November). Clinicians report EMDR is a "miracle treatment" for its rapid treatment of a variety of phobias and PTSD symptoms. Similar to the VKD treatment approach, clients are asked to focus on a goal for treatment that not only eliminates the unwanted symptoms, but also generalizes to other areas (e.g., self-confidence). Clients then are asked to address certain circumstances associated with the traumatic event (e.g., associated thoughts and feelings) while they focus their attention on a rhythmic stimulus. Most often this stimulus is the therapist's fingers waved at a certain rate to produced lateral eye movement (Shapiro, 1989; Shapiro, 1995).

ThoughtFieldTherapy(TFT). This approach was represented by the final treatment team to participate in the study (mid December). TFT, formerly was known as the "Callahan Technique," reportedly involves rapid elimination of a wide variety of unwanted symptoms. It combines both cognitive reprocessing and use of circulatory fields (meridians) within the body. The treatment appears to have roots in applied kinesiology (Blaich, 1988). The client is asked to concentrate on the stimulus that causes the symptom (thought field) while performing a prescribed "algorithm" of actions. The innovator claims the procedure directs various "thought fields" in a way that eliminates the symptoms ("perturbations") permanently. Unlike the aforementioned approaches, TFT

can be used over the telephone, through audio and videotapes or to treat groups of people simultaneously (Callahan, 1991; Callahan & Callahan, 1997).

PreandPostStudySymposium

As part of the philosophy that this research should be a community-wide, multi-disciplinary, and multi-professional effort including both practitioners and clinicians, two symposia were held for each of the treatment approaches. (Halpert, 1966) noted that many research findings that could improve clinical practice are either unknown because they are never published or never read by clinicians; thus the symposia were one way to expand the body of consumer that would be aware of these innovations and the research.)

Over 130 local area clinicians and researchers attended at least one of the symposia. The first of two symposia for each visiting clinical team, was to provide a quick overview of the clinical approach. The researchers provided an overview of the project, which was followed by a presentation by the visiting clinicians. The format included:

- (1) a history of the approach (how and why it was invented);
- (2) a theoretical model of how and why it works;
- (3) a step-by-step procedure for
 - (a) how to identify the traumatic stress symptoms,
 - (b) how to assess the client's interest and commitment to a successful treatment outcome, and
 - (c) a specification of treatment methodology;
- (4) how to identify indicators and counter indicators for treatment;
- (5) how to identify indicators of treatment success;

(6) profiles of treated clients (e.g., presenting problems, demographic profile, time since traumatic event/symptomatic period); and

(7) requirements for training in the use of the approach (e.g., prerequisite education/experience, workshop training requirements).

The purpose of Symposim II was to report the initial results of the study. The clinicians reported the initial results and did presentations of the cases they had seen during the week. the research team presented a panel discussion followed by a question and answer period.

Procedures

ResearchClientRecruitmentandScreening. Potential clients were recruited through media announcements, and word of mouth "announcements" among local therapists. Potential participants were asked to call a designated number for more information. When they called and identified themselves, the receptionist collected basic information such as their phone number their availability during the treatment period. A member of the research team then returned the potential participants calls to assess their appropriateness for the study. The following criteria were used to initially screen clients.

1. Participants had experienced life disruption as a result of a traumatic stress symptom and were willing to be videotaped and complete all other aspects of the research for 6 months

2. If currently in therapy, participants obtained consent from her/his therapist to participate in the project.

3. Participants agreed to take no drugs other than those prescribed for mild depression or unrelated to mental health treatment

If potential participants met the criteria, they were told of the availability of treatment and the times available for treatment. Because each treatment was scheduled for only one week, participants were required to be available during that week. Participants were asked to sign informed consent that a) identified the conditions under which they would be treated (e.g., video taped) and all other requirements (e.g., protocol of the study); and b) agree to be treated during the treatment times and dates at the Clinic. Participants were not required to meet the DSM IV criteria for PTSD, but were required to articulate a

trauma or phobia that was interfering with their daily functioning. Participants who chose not to join the study or did not qualify were referred for treatment outside of the study. The participants who agreed to participate and signed the informed consents were scheduled for an pre-testing and assigned to the next available treatment. Participants were assigned to the treatments as they became available. All participants were treated in accordance with APA ethical principles and prior approval for the project had been obtained from the University's Institutional Review Board.

Pre-testing: Each participant received the paper and pencil measures focusing on life stressors and stress reactions, demographic and psychosocial profile, and social support and other resources for managing. In addition, physiological recording was attempted but because of various equipment problems, few data were obtained. The measures to be discussed here are described briefly:

Demographic Information Form (used by the Psychosocial Stress Clinical Laboratory for all clients)- this form provided basic information on each participant.

The Traumagram Questionnaire (Figley, 1989)- this form was a description of each client's individual "trauma history" and was reviewed by therapists before meeting with the clients

The Brief Symptom Inventory (Derogatis & Spencer, 1982)- All participants received the Brief Symptom Inventory(BSI) before and six months after treatment. The BSI is a 53 item self-report inventory in which clients rated their distress of a five-point scale. Subjects are instructed to indicate how much a given problems has bothered them in the past seven days. It is described as a "measure of point in time, psychological symptoms status." The BSI is highly sensitive to change and thus is useful as a tool for pre/post evaluation (Derogatis & Spencer, 1982). The BSI produces nine symptom dimensions and three global indices. The three global indices Global Severity Index (GSI) , Positive Symptom Total (PST) , and Positive Symptom Distress Index (PSDI)) were used in this study. These measures have higher test-retest reliability than any of the individual symptom dimensions available. Research has supported the validity of the BSI as a measure of psychological distress.

Impact of Events Scale (Horowitz, Wilner, & Alvarez, 1979) - The Impact of Events Scale is composed of two separate subscales, intrusion and avoidance. Participants rate each item on a scale of 0 (not at all) to 5 (often) depending on how well the item describes the subject. The items contained in each subscale are summed to form a composite score for each subscale. There is no total score, which combines the subscales. The IES is noted to be useful as a screen for the presence of post-traumatic stress disorder, but does not include symptoms of hyper arousal (Briere, 1997).

Subjective Unit of Disturbance (SUD) rating (Wolpe, 1958): Participants were asked to provide a rating, on a ten-point scale, of their subjective unit of distress (SUD) in regard to their presenting problem before treatment began and immediately after treatment. The participants were also asked to keep a diary on a daily basis for the next six months. A notebook was provided for this purpose and the description of the ratings and instructions were on the inside cover of each notebook. A phone number and name of a member of the research team was also included so that the clients would call with any questions. In addition, a research team member called each research participant on a weekly basis to obtain a SUD rating for the week, to answer any questions and to encourage them to keep their diary.

An attempt was made to videotape each session. The therapist determined session length and the number of visits within the treatment week. Six months following termination, clients were requested to return for follow up testing and were re-administered the instruments described above.

Results

A total of 51 research participants were pre-tested and assigned to one of the four therapies. Of these 51 subjects 39 received treatment. There were a variety of reasons that the remaining clients did not receive therapy in this study. Some declined participation in the study after screening, some were inappropriate for treatment, some did not meet the criteria for the study, and some presented with problems such as uncomplicated bereavement which were inappropriate for the study.

The majority of the participants/clients were female, in both the treated and untreated groups. Twenty-nine females (29 or 77.4%) and ten males (10 or 32.6%) received treatment. Eight females (66.7%) and 4 males (43.3%) did not receive treatment. Thus, 39 individuals were seen in treatment and 12 were not. Clients who received treatment tended to have a higher level of education (16 years) as compared to those not seen (13 years). Those seen in treatment had an average age of 40.8 years, while those not seen had a mean age of 39.1 years. Presenting problems were varied and included traumas such as childhood abuse, combat exposure, criminal victimization, motor vehicle accidents and accidental shooting (See Table 1).

Length of Treatment

The therapist determined the duration of each treatment session, but the design limited therapy to one week. Therapeutic sessions ranged from four hours (TIR) to 20 minutes

(TFT). The average duration of treatment per client, in minutes, was 254 for TIR, 113 for VK/D, 172 for EMDR and 63 for TFT.

Several therapists noted that they saw their clients an additional session event after they

thought treatment was complete because they knew that the clients would not have the opportunity

to see them again after the week was over.

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SUDRatings

Although the intent was to ask each subject for a SUD rating, data many of these data were missing. Some of the treatments do not, as part of their procedure, require a SUD rating and thus these ratings were at times forgotten. The lack of a SUD rating does not reflect on the treatment itself, but is a reflection of problems in data collection. In addition, in spite of weekly phone calls/messages, many people did not keep their diaries. For those who did, the ratings demonstrated what could best be described as "slippage" and began to reflect events other than those relevant to the study. For example, a SUD rating would be provided with the description that it has been a "bad day" secondary to things such as car problems, a problem at work, or dismay over the weather. In many cases, there were ratings with no written description, leaving the researchers unable to determine whether or not the SUD ratings in the diary referred to the presenting problem. Given these problems, the SUD ratings reflect pre-treatment ratings and ratings immediately post-treatment.

As noted in Table 2, the SUD scores ranged from a mean of 4.75-6.5 before treatment and from 2.0-5.25 after treatment. It is not appropriate to compare treatment approaches for all the reasons noted earlier. Nonetheless, it appears that EMDR and TFT produced the largest drop in scores.

Results indicate that there was great variability both pre- and post- test SUD scores. The VK/D group had low pre-treatment scores, leaving little room for change. The VK/D therapists treated 9 of the 11 subjects originally assigned to them, as one subject refused treatment upon arrival and the other subject suffered from uncomplicated bereavement and was inappropriate for study. The EMDR group, which treated 6 of 15 subjects also

had a low pre-treatment SUD rating. Several subjects in the EMDR group (6) were deemed inappropriate for treatment by the EMDR therapists and most were noted to need more treatment before EMDR would be appropriate. TIR therapists treated all subject who were assigned to them, as did TFT therapists, although one subject did not show up for TFT after having been pre-tested.

BriefSymptomInventory

Pre- and post data (Table 3) are presented for subjects who attended the six month follow up. The results are presented for each therapy individually. Scores are presented for each of the three major indices of the BSI, the General Symptom Inventory, the Positive Symptom Total and the Positive Symptom Distress Index. The BSI was scored using psychiatric outpatient norms and pre-test scores were generally at the mean for psychiatric outpatients. It is important to note, for those unfamiliar with the BSI, that the positive symptom total represents the number of symptoms that the client has endorsed, without reference to the level of severity of the symptom. Thus, a pre and posttest score may be the same on this scale, although the severity of the symptoms has changed. The positive symptom distress index, however, reflects both the symptom and the level of distress, and thus would reflect change in symptom severity.

Although changes were relatively small in some cases, there was overall improvement in most cases. As with other measures, there was a great deal of variability among the subjects.

ImpactofEventsScale

Scores are reported (Table 4) for both intrusion and avoidance scales. There are three cutoff points for the IES. A low score is below 8.5, a medium score is between 8.5 and 19 and a high score is over 19. Once again, there was overall improvement in most cases, although not all changes were great enough to move the scores to a lower cutoff. Again, there was a great deal of variability among the subjects.

Discussion

The purpose of the present study was to explore and examine four brief treatments purported to be efficient, effective treatments for PTSD. Unfortunately, because of problems with client screening and data collection, the study fell short of reaching its goals. Moreover, the nature of the study precludes comparison of the approaches, and such a comparison was never planned. The variety of presenting problems and the varying levels of severity of those problems within each treatment group precluded us

from drawing conclusions about the utility of any treatment for any particular type of trauma. Nevertheless, all four of these treatments deserve further study in more controlled conditions and some of these approaches have already been the object of such research.

Although not a comparison of the outcome for each treatment, it is important to determine and examine the similarities between these approaches. If there are similarities, then perhaps there is an "active ingredient" that accounts for the reported success of each of these therapies.

The apparent differences for each of these treatments obscure what may be an important similarity, the client-directed nature of the treatment. Although the treatments vary greatly in their outward appearance, they all require that the client provide and /or direct two important aspects of the treatment. First, in each of the treatments, the control and direct the extent of exposure to the traumatic event they will receive. Second, while creating their own level of exposure to the trauma, each of the treatments provides some intervention, ranging from a form of what could be called unconditional positive regard (TIR) to tapping (TFT). We suggest that the impact of the treatments is to create in the client a relaxation effect at the same time that the client is self-exposing to the trauma. In TIR for example, the method could be described as asking the client repeatedly to expose themselves to their traumatic memories at their own pace accompanied by unconditional positive regard from the therapist. VK/D shares similarities with TIR in that it involves multiple "viewing" of the trauma at the client's direction with the support of a therapist. In EMDR, the client also self-exposes while being directed in eye-movements. While the eye-movements are purported to be of importance in a neurological sense, proponents of EMDR also indicate that finger tapping is equally successful, indicating that any success achieved through the use of EMDR is not due to the neurological impact of eye movement, but to some other process. TFT involves the client mentally exposing themselves to their traumatic memories with direction from the therapist on which "meridians" to tap or stimulate. Essentially, in all of the approaches, the trauma is recalled in the presence of relaxation (or if not relaxation, the absence of stress) and thus is not "re-lived" as it is remembered because the negative affect associated with the trauma is not re-experienced with the memory of the event.

Another important similarity is that the client chooses the level of exposure to the stressful materials. Although in both TIR and VK/D, this exposure may be verbalized repeatedly to the therapist, and in EMDR and TFT the exposure is verbalized to a lesser extent, the client still chooses the level of exposure. In addition, all four-treatment approaches seem to lower negative arousal during this self-dosed exposure.

All four of the approaches are highly focused on outcome objectives, exposure based, and client directed both in terms of the selection of traumatic material to be considered and the amount of exposure to the material that they experience. This leads to the hypothesis

that the active ingredient may be the simultaneous exposure to the traumatic memory and the reduction in distress. Thus, the client is able to remember the trauma without the negative arousal that previously accompanied the memory of the trauma (Lick & Bootzin, 1975).

Our investigation of these four promising methods of traumatic stress reduction and elimination are far from complete. Yet, these treatment approaches appear to be promising in helping clients remove the most painful aspects of their traumatic memories. It is clear that these treatment approaches are worthy of further study in clinical and laboratory settings to further determine their utility and the active ingredients that account for their apparent effectiveness.

Five aspects of this study distinguish it from others for good or ill. First, an expert panel nominated the promising treatment approaches selected for examination. Second, the developers of each of these treatments were invited to participate in the study and either provided treatment themselves or chose the practitioners. Third, over 100 community practitioners monitored the project through a series of symposia held just prior to and following treatment and data collection. Fourth, the study screened, pre-tested and post-tested the research clients and continues to do so. And, last, the clinical significance and utility were studied.

As noted earlier, this is the second of a series of reports and studies in our research program. Many of the goals of our program were addressed in this report. We have identified four promising treatments and plan to continue monitoring our research clients and conduct follow up testing when possible. We also intend to study other promising approaches, particularly those that purport to eliminate childhood anxiety disorders.

We also plan to continue to utilize the SCD methodology and rely on the consultation of our colleagues through the Internet. In another report we will discuss methodologies utilized in medical and epidemiological research and how the SCD methodology adapts these approaches in an effort to increase the number of clinical innovations investigated. It is hoped that these efforts will decrease the time between discovery or development of a treatment and the initial clinical trial testing, and reduce the cost of psychotherapy research.

Finally, we continue to search for the active ingredients that account for the apparent power of these and other treatments in eliminating or alleviating post traumatic stress symptoms. In doing so, we believe that we will eventually develop a testable theoretical model that accounts for the traumatic stress induction and reduction process. Such a model will lead to the development and testing of clinical guidelines for treatment of post traumatic stress reactions.

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Footnotes

1. Current address is "traumatic-stress@freud.apa.org" To join, send a message to owner-traumatic stress@freud.apa.org

Table 1

Presenting Problems

Untreated Treated

Subjects

<u>Problem</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Childhood Abuse	5	41.7	15	38.5
Death/Loss	3	25	9	23.1
Combat/ Military	2	16.7	4	10.34
Domestic Violence	1	8.3	3	7.7
Other	1	8.3	3	7.7
Job Related	0	0	3	7.7
Sexual Assault	0	0	2	5.1

Table2 PreandPostSUDRatingsbyTreatmentGroup

SUD Ratings		
	Pre-Treatment	Post-Treatment
Treatment Group	Mean Range	Mean Range
TIR (N=2)	6.5 4-9	3.4 3-4
VK/D (N=8)	4.75 0-9	5.25 1-9
EMDR (N=6)	5.0 1-8	2.0 0-5
TFT (N=12)	6.3 1-9	3.0 0-6

Table3

PreandPostBSIScoresbyGroup

GSI

Treatment Group	Pre-Treatment Mean	Post-Treatment Mean
TIR (N=5)	57	48
VK/D (N=6)	51	43
EMDR (N=4)	52	43
TFT (N=8)	44	39

PST

Treatment Group	Pre-Treatment Mean	Post-Treatment Mean
TIR (N=5)	52	49
VK/D (N=6)	52	46
EMDR (N=4)	55	42
TFT (N=8)	41	39

PSDI

Treatment Group	Pre-Treatment Mean	Post-Treatment Mean
TIR (N=5)	57	48
VK/D (N=6)	49	40
EMDR (N=4)	54	42
TFT (N=8)	51	41

Table4

PreandPostIESScoresbyGroup

Intrusion Scale

Treatment Group	Pre-Treatment Mean	Post-Treatment Mean
TIR (N=5)	24	19
VK/D (N=6)	22	11.5
EMDR (N=4)	24.3	12
TFT (N=8)	12.6	11.3

Avoidance Scale

Treatment Group	Pre-Treatment Mean	Post-Treatment Mean
TIR (N=5)	33	17.8
VK/D (N=6)	16.7	12.5
EMDR (N=4)	15.8	11
TFT (N=8)	13.8	11.6

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