
THOUGHT FIELD THERAPY

Evidence and Observations

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Thought Field Therapy: The Case Of Mary

by Roger Callahan, Ph.D.

"... we name a new field, use it and it no longer seems mysterious. But we still do not know what an electric or a gravitational field really is."

"... we have introduced a concept that is new in the context of physics - a concept that we shall call active information. The basic idea of active information is that a form having very little energy enters into and directs a much greater energy. The activity of the latter is in this way given a form similar to that of the smaller energy."

David Bohm
Theoretical Physicist

Abstract

Mary was the first client treated with what is now called Thought Field Therapy (TFT). She had been treated by the author for a year and a half with a variety of psychotherapeutic methods, and although her behavior improved somewhat, the therapy experience was a terrible ordeal, and nightmares about water "getting her" continued. An experiment with this new therapy dramatically removed every trace of the recalcitrant intense phobic fear and also the nightmares centering around this problem. The treatment has held for sixteen years. Additional developments in TFT since that time have enabled the treatments to achieve a growing success rate with a wide variety of psychological problems.

Thought Field Therapy: The Case Of Mary

by Roger Callahan, Ph.D.

Mary was a forty-two year old woman who complained of an extremely intense phobia of water. Her working middle class parents were still alive at the time of treatment, and she asked them how long she had the fear of water. They reported that she suffered from this intense phobia for as long as anyone in the family could remember. There was no report of traumas associated with water, since she carefully avoided any contact with water beyond bathing (where a minimum of water was used). Mary's family reported that she seemed to have this fear as far back as any could recall.

The fear was so pervasive and intense that Mary was unable to even view television, which showed a body of water. She would have to leave the room whenever water in any form was shown on television. She had three children and they would often ask her to take them to the beach to swim. She reported that she was very appreciative when the film "Jaws" was released, since her children stopped asking her to go to the beach. Though she lived in Southern California, Mary was never able to drive near the beach.

Bathing was a torture, which she regularly but unhappily endured. In order to bathe, Mary would put a very small amount of water in a tub and completed the ordeal as quickly as possible. A rainstorm generated intense torture for this woman who had the corollary fear that water, somehow, would "get her." The nightmares, which took place several times a week for as long as she could remember, were described as terrifying events in which water "got her." These weekly horrible dreams would cause her to awaken sobbing in a cold sweat.

Her brother had a beautiful boat, but she was unable to go near it. When her friends went on cruises, she would make up excuses as to why she could not join them. Like many people with intense phobias, Mary wrongly believed the common notion that phobics are people who lack courage, and therefore, she felt shame over her problem.

She requested psychotherapy, and treatment was started at my house since there was a pool which could provide tests of the therapy success as well as an opportunity for systematic de-sensitization with relaxation training and exposure. The pool was a deep source of distress to Mary, and she could not bear to look at it, nor could she walk anywhere near the deep end of the pool.

I was a pioneer in cognitive and behavior therapies and had been doing psychotherapy for 30 years prior to this point. I used every psychotherapy modality at my disposal during the year and a half of treatment. Suggestion, placebo, clinical hypnosis, behavioral therapy, rational-emotive, systematic desensitization, distraction techniques, progressive relaxation, client-centered therapy, and exposure were among the modalities used.

Each treatment was started in the house where I would regularly teach relaxation, induce hypnosis, and attempt to help Mary challenge her deep erroneous beliefs about the danger of water. After the office part of the session, the remaining part of each session consisted of getting her to go near the edge of the shallow end of the pool. During the last six months of this therapy, an increasing amount of time was spent at the pool. There was extreme reluctance on her part each time we approached the pool, and she made great efforts to avoid looking at the water, which still, after all the extensive exposure and therapy, caused her emotional and stomach upset.

Eventually, over many months, she gradually achieved the goal of sitting at the shallow end of the pool. She still could not look at the water. From an overt behavioral standpoint, one could say that the therapy was moderately successful in that after a year and a half of this therapy, she was able to do something she could not do prior to therapy—she was able to sit on the side of the pool with her feet dangling in the water; however, despite this advance, it remained very difficult for her. She still could not look at the water, she suffered from a severe headache after each therapy session, and the regular upsetting nightmares about water persisted. The therapy was torture, but she was determined to do anything that would eliminate this intense phobia. One might describe the sum total of all this therapy as providing Mary with the knowledge that she could withstand a great deal more suffering than she formerly thought she could.

I was never satisfied with the efficacy of the conventional procedures and was exploring alternative approaches. I was taking a course that included some information on acupuncture or meridian therapy. Mary complained about a feeling in the pit of her stomach whenever she thought about water.

Through examining acupuncture charts, I found that the stomach meridian started under the eye, travelled to the top of the head, and then descended down the body, ending at the tip of the second toe. The intuitive thought of putting physical energy into that meridian occurred, and I asked her to tap below the center of the eye, about an inch below the bottom center of the eyeball.

A strange look immediately came upon her face and she said, "It's gone!" Confused, I asked, "What's gone?" "The awful feeling in the pit of my stomach—it's gone! I don't think I'm afraid of water any more; for the first time in my life, I feel fine when I think about water!"

Naturally, I was quite skeptical regarding this report and suggested we go to the pool to test this report, as well as the therapy. Instead of the usual reluctance and holding back, she dashed out the door and ran to the pool. Not having any idea of what was going on, I was quite frightened. I ran after her and shouted as she approached the pool, "Mary, look out!" She was already near the deep end, a territory to which she never ventured before, and she stopped when she heard me cry out. Seeing the intense fear on my face, she laughed and shouted, "Dr. Callahan, don't worry! I know I don't know how to swim. I'm not going to jump into that pool."

I was greatly relieved. At that instant, I learned something of great importance about the treatment. The treatment, while apparently removing the problem, did not at the same time make Mary careless or forget important information such as safety.

As I reached Mary, she began to lean into the deep end of the pool, put her face near the water, and splash water on her face. She was thrilled, as was I. She suddenly appeared to have no trace of her former severe phobia of water.

As we finished talking about the experience, it became evident that a severe storm was brewing. Formerly, this event would be a cause of great anguish and the need to rush home to safety before the water from the storm could "get her." She looked at the sky of moving darkening clouds and remarked, "This is the first time in my life that I can look at a stormy sky and feel peace."

The next day, she phoned to report to me that after she left, she wanted to test the extent of her apparent cure, and that instead of rushing home after the therapy session, she casually drove to the beach. She parked her car and walked to the beach near to the large growing waves while the wind and the rain blew strongly against her. Here was an acid test for Mary. She said that she had no trace of the fear and was perfectly relaxed. She was ecstatic!

I vividly recall finding it hard to believe that Mary could actually be cured, but follow-up forced me to accept this startling conclusion. As mentioned, prior to this time, I had about 30 years of practice in psychotherapy with various modalities and never experienced, nor did I ever even hear of such a dramatic result with such a severe phobia.

About a year later, I received a card from Mary with a picture of an ocean vessel on it. She wrote a lovely note explaining that she was having a wonderful time with a group of friends on this ship, with no trace of the phobia. The nightmares vanished immediately after the treatment and have not returned. Sixteen years of follow-up support the conclusion that Mary's cure has endured over time (Callahan, 1993).

I was pleased with this result but quickly found that merely tapping under the eye did not do the same for all, nor even most phobic clients, although it formed an important part of the successful treatment of most phobics. I was encouraged by this one dramatic result and persisted in exploring what it would take to help a greater number of people.

Over a period of months, a number of additional procedures that eventually allowed me, as well as others (Callahan, 1981, 1986, 1993; Leonoff, 1996), to obtain a high success rate with phobias and other anxiety symptoms treated in a highly public setting. The TFT algorithm for phobias and anxiety symptoms is given elsewhere (Callahan, 1993).

Attempts to account for the surprising results of TFT by such notions as placebo, suggestion, charisma, or transference cures do not accord with the facts of the treatment. Why, for example, after using every therapy procedure with which I was familiar, did Mary not respond until she was tapped under her eye? It should be kept in mind that not only was Mary expecting nothing from this new procedure, but neither was I—it was purely an experiment.

The fact that therapy results (Callahan, 1986) with 66 individuals were duplicated, almost exactly, by a newly trained therapist (Dr. Glenn Leonoff, 1996) a decade later lends strong support for more research in TFT. Hundreds of other therapists, almost all of whom are initially skeptical, report very similar results (Callahan, 1995).

In Callahan's study, 11 people called who were terrified of speaking over the radio, which they were doing at the time of calling. An analysis of this sub-group showed that their SUD lowered after TFT treatment while engaging in their fear. These guests had an average SUD of 8.8 prior to treatment, and they dropped to a 1.9 (1 equals the lowest possible level of disturbance in this study) after treatment. This represents an average decline in SUD level of 6.9. The average time required for this was 5 minutes and 16 seconds. All 11 individuals in this sub-group reported dramatic improvements. These results support the desirability of further investigation of the TFT procedures under more controlled conditions and with appropriate follow-up.

How Does TFT Work?

As mentioned, I was a pioneer in behavioral and cognitive methods in the 1950's. I used cognitive theory in an attempt to understand TFT. Somehow, it seemed that tapping in the correct places, and in

the correct order (determined by TFT diagnosis), appeared to change deeply held cognitive beliefs. In fact, in the many years of attempting to change the deeply held beliefs of clients related to their emotional problems, I had never experienced a more rapid and complete procedure for accomplishing this presumed result.

I diligently pursued the cognitive attempt at understanding TFT results for about 10 years; however, about 6 years ago, a *gedanken* (as it is commonly called in science), or thought experiment, suggested that the cognitive issue was, after all, not likely a fruitful avenue of exploration (Callahan & Callahan, 1996).

The Thought Experiment

If deeply held beliefs could be so easily changed with a few appropriate taps, then it ought to be possible to change the deeply held beliefs of a Muslim to that of a Jew or a Christian, or to change a communist into a capitalist, a conservative into a liberal, or vice-versa, with just a few well-placed taps. It was immediately apparent that when deep beliefs are viewed in this fashion, this was an absurdity and would not be possible. I needed to look elsewhere.

At the present stage of development, we can only speculate what is happening in the treatment. In the last 16 years, I have read a great deal of theoretical biology and also quantum physics. The reason for quantum physics is due to the interesting and predictable changes typically taking place in the TFT treatment. The changes follow a pattern, within minutes, of going from a SUD of 10, when the first phase is given, to 7 and then to a 4 after the middle phase, and ending typically at a 1. These are quantum-like leaps between SUD levels without passing through intermediate levels of disturbance. This is a robust finding in TFT.

Briefly, it can be mentioned that certain quantum theorists (Bohm, Bohm and Hiley—see introductory quote) have written on the concept of information in quantum theory, and this work appears to cohere with TFT empirical results and contribute to a deep level of explanation. Much scientific work has been done on the energy system and is cited in the recent book on trauma (Callahan & Callahan, 1997).

Briefly, we (Callahan & Callahan, 1997) propose that the fundamental causal source of negative emotions, rather than being in the hard wiring of the brain, nervous system, chemistry, or even the cognitive system, as is commonly believed, resides rather in the thought field in the form of an entity that we call a perturbation (which the regular dictionary defines as "a cause of mental disquietude"). TFT, of course, is not addressing the commonly attributed causes of disturbed emotions but a whole new, to western science, source—the energy or meridian system associated with the body and the mind, through the attuned thought field. When a thought field containing perturbations is attuned, the person gets emotionally upset. By addressing the thought field and collapsing the perturbation through TFT, the upset disappears.

The perturbation is an isolable aspect of the thought field and contains the active information, which triggers the sequence of events (chemical, neurological, the amygdala, and the cognitive systems), resulting in what is experienced as a negative emotion. The perturbation (a bioenergy concept) is proposed as more fundamental in the causal chain than the chemistry, cognitive, and nervous and brain systems, and that is why its collapse, with successful treatment, has such evident far-reaching effects on all these systems.

Bohm and Hiley (1993) described their pivotal concept in quantum physics: "We have introduced a concept that is new in the context of physics—a concept that we shall call active information. The basic idea of active information is that a form having very little energy enters into and directs a much greater energy. The activity of the latter is in this way given a form similar to that of the smaller energy" (p. 35). The process described here for quantum theory appears to fit the notions of numerous investigators into the bioenergy-energy realm as the process by which biological control systems operate. One may understand the relevance of the TFT usage of "active information" in that it is proposed that the microstate of the perturbations generate the macrostate that the person feels when depressed, angry, anxious, etc. Successful psychotherapy is the transformation, collapse, or subsumption of this active informational microstate (perturbation), which results in the commonly observed and successfully predicted elimination of the negative emotions in TFT.

We are fully aware of the radical nature of these proposals, but the algorithms (Callahan, 1993; Callahan & Callahan, 1996, 1997) allow the reader to test first the efficacy of the treatment (without special training) and will then be in a better position to understand the theoretical proposals that have been carefully developed over the last decade and a half to accord with the numerous new facts generated by TFT.

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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.

Managed Care Pressures

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.

Current State of Clinical Traumatology

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.

Trauma Incident Reduction (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.

Visual Kinesthetic Disassociation (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).

Eye Movement Desensitization and Reprocessing (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 produce lateral eye movement (Shapiro, 1989; Shapiro, 1995).

Thought Field Therapy (TFT). This approach was represented by the final treatment team to participate in the study (mid December). TFT reportedly involves rapid elimination of a wide variety of unwanted symptoms. 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).

Pre and Post Study Symposium

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 Symposium 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

Research Client Recruitment and Screening. 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 a 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.

SUD Ratings

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.

Brief Symptom Inventory

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 post-test 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.

Impact of Events Scale

Scores are reported (Table 4) for both intrusion and avoidance scales. There are three cut-off 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 cut-off. Again, there was a great deal of variability among the subjects.

Table 1
Presenting Problems

Problem	Treated	Subjects	Untreated	Subjects
	N	%	N	%
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

Table 2
Pre and Post SUD Ratings by Treatment Group

Treatment Group	SUD Ratings	
	Pre-Treatment Mean (Range)	Post-Treatment 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

Table 3

Pre and Post BSI Scores by Group

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

Table 4
Pre and Post IES Scores by Group

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

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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An Experimental Study of TFT and Acrophobia

by

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As many practitioners of TFT are aware, Dr. Charles Figley and I conducted a Systematic Clinical Demonstration (SCD) study of four therapies, including TFT. This SCD study utilised clients who had suffered a trauma or who suffered from a phobia. All of the treatments tested were demonstrated to be effective, based on SUD ratings (subjective units of distress) and other paper and pencil measures. In order to further examine TFT, one of my students (Neta Mappa) and I decided to do an experiment to supplement the clinical demonstration. Although there has been a great deal of clinical support for TFT, there had been no true experimentation. The purpose of the experiment was to determine whether TFT would decrease the anxiety level of acrophobics more than a placebo control treatment.

We chose to do our experiment with acrophobics (height phobics) for several reasons. First, this is a fairly common phobia. In addition, there is a measure, the Cohen Acrophobia Questionnaire (Cohen, 1973), that can be used to screen people for acrophobia. We could also do a behavioural test of the subject's fear of heights both before and after treatment. Finally, there is an TFT algorithm for phobias. It was important to be able to use an algorithm to ensure that all subjects received the same treatment.

The subjects in the study were college students who identified themselves as having fear of heights. There were 156 students who signed up for the experiment, all indicating that they had a fear of heights. They were given the screening measure and 49 of them reached the cut-off for height phobics. These 49 subjects who reached the cut-off were then given a behavioural test. They were asked to approach and climb a four foot ladder. We hoped that the ladder was of sufficient height to provoke an acrophobic response, but not so high as to put the subject at physical risk. The floor in front of the ladder was marked off in one foot intervals for four feet. The subject was asked for a SUD rating at each mark, and then again on each step of the ladder. The subjects were free to stop ascending the ladder at any point.

After completing the behavioural test, the subjects were taken to a separate room and were met by another experimenter. They were then asked to give a SUD rating. They were requested to think of a situation related to heights that made them anxious and then rate their anxiety on a scale of 0 to 10. In order to assign the subjects randomly to either TFT or a placebo TFT, they were asked to draw a piece of paper from a box. All of the papers in the box were numbered 1 or 2. Those who drew the number one received the TFT algorithm for phobias and those who drew the number two received a treatment that consisted of tapping on various parts of the body that are not used in TFT. Before any treatment began, all of the subjects were treated for psychological reversal. Then, the experimenter treated them with either with TFT or the placebo treatment. After treatment they were asked for a SUD rating. If the SUD

was not zero, the treatment was administered again. Post-testing began after the second treatment, regardless of the SUD rating.

After the treatment, subjects were returned to the first experimenter who did post testing with the subjects. It is important to note that the experimenter who did the pre and post tests was unaware of which treatment the subject had received. At the post test, subjects were again asked to approach and climb the ladder, giving a SUD rating at each step, just as they had before treatment.

Before doing any analysis, the groups were compared on their pre-treatment measures to be sure the groups were comparable. Given the random assignment to condition we did not expect the groups to differ on pre-treatment measures and they did not. Although both groups got somewhat better there was a statistically significant difference between those subjects who had received real TFT and those who had received placebo, with the TFT subjects showing significantly more improvement. There was a significant difference when all the SUD scores were averaged for each subject and the difference was more pronounced when examining the SUD scores of the subjects while climbing the ladder. Thus, those who were treated with TFT had less anxiety than those who received the placebo.

The study provides important data about TFT. While clinical trials demonstrate the usefulness of TFT, they do not have control groups, nor are subjects randomly assigned to condition. In this study, subjects were randomly assigned to condition and there was a placebo treatment. Unlike the Systematic Clinical Demonstration study, the goal was not necessarily to reduce the SUD to zero, but to determine if TFT, administered under controlled conditions, would differ significantly from a placebo treatment that was similar to TFT. The clinical study and the experimental study, taken together, provide unique support for TFT. We plan to publish the full results of the study in the future.

Phobia and Anxiety Treatment by Telephone and Radio

Replication of Callahan's 1986 Study
Glenn Leonoff, Ph.D. • Monterey, California, 1996

Radio listeners with phobias and anxiety states were invited to call radio programs in order to receive live-on-the-air treatment by the investigators. The proprietary Voice Technology developed by Callahan (1985) was used as the method of diagnosis for Thought Field Therapy (TFT) treatment in both studies. Each study included 68 subjects. Consistent with the procedure in Callahan's study, the results of the present study include the data for all callers who were treated, including those whose treatments were interrupted due to time limitations. Callahan used this stringent procedure in order to minimise selective bias.

Treatment effectiveness was measured by the callers' own report about their intensity of distress. Callahan used a ten-point (1 to 10) Subjective Units of Distress (SUD) rating scale, while Leonoff used an eleven-point (0 to 10) SUD scale. Despite the less than ideal conditions of treating psychological disorders on radio programs, a 97% success rate was achieved by both investigators. A successful treatment was defined as an improvement of two or more SUD points.

Callahan's mean pre-treatment distress rating was 8.33, and his mean post-treatment rating was 2.01, representing a 75.9 percent improvement. Leonoff's mean pre-treatment distress rating was 8.19, and his mean post-treatment rating was 1.59, representing a 75.2 percent improvement. Callahan achieved his results in an average time of four minutes and thirty-four seconds. Leonoff required an average time of six minutes and four seconds (**Table 1**).

As in Callahan's study, treatment time included the entire duration of talking to the caller until treatment was completed, including the description and instructions of the treatments, not just the actual treatment time itself. Since treatment time entailed the entire time spent in talking with a caller prior to initiation of actual treatment, it is believed that personal interaction styles of the practitioners account for some of the difference in these measures. A greater willingness to engage in conversation with a caller prior to initiating the actual treatment resulted in a longer treatment time. A more exact measure of actual treatment duration would have been to measure only the actual treatment time.

The fact that similar results were achieved a decade apart by two independent investigators with dissimilar professional backgrounds and significant differences in their experience and knowledge of TFT procedures provides strong support for the efficacy, effectiveness, and reliability of the TFT treatment and training procedures. Furthermore, the high success rate supports the diagnostic accuracy of Voice Technology (VT).

Callahan was the pioneer and developer of these revolutionary treatment procedures. He undertook his study after approximately six years of refining his methods. Leonoff embarked on his study during the course of his first year of study of the VT with Callahan. Thus, there was a distinct difference between the two investigators in their level of technical knowledge, experience, and theoretical understanding of the TFT procedures.

The Callahan/Leonoff studies were not intended to investigate the duration of the achieved therapeutic gains. Duration of treatment results is an obviously important clinical issue for any therapeutic procedure. Research concerning the duration of TFT treatment is an important next step in the establishment of an empirical basis for the efficacy of this

procedure. Hopefully, the robust findings of the two studies will stimulate more extensive research, which will address the issue of duration of TFT results.

However, preliminary research data supporting the duration of successful TFT treatment is provided by the six-month follow-up data from the "Active Ingredients in Efficient Treatment of PTSD" study (Figley & Carbonell, 1995). According to the report, presented at the International Society for Traumatic Stress Studies in Boston on November 3, 1995, TFT treatment gains were maintained on six-month follow-up. The Figley and Carbonell data provide important corroboration to clinical observations of the enduring results of TFT. Further, there is clinical evidence of TFT therapy holding for ten years or more (Callahan, 1990).

A highly significant aspect of the Callahan/Leonoff research is that the therapeutic success was achieved through a procedure that is based on the diagnosis and treatment of the body energy system. The TFT procedures represent a radical change in the therapeutic paradigm of psychology. The diagnostic and therapeutic procedures of TFT are founded on the identification of specific perturbations in the body energy system, as identified through specific diagnostic assessment while the subject is engaged in thinking about or experiencing their particular psychological concern.

Briefly, it is hypothesised that the therapeutic results of TFT demonstrate that the body energy system is the control system for the negative emotions. It is proposed that these "perturbations" (Callahan, 1995) in the thought field are the fundamental causal basis for biochemical, hormonal, neurological, and cognitive levels entailed in negative emotions. This theoretical formulation is based on the understanding in modern physics that complex energy fields and their interrelationships are the basis for all matter, including that of the human organism. It is theorised that the stimulation of specifically defined points along the meridian energy system transduces the physical energy generated by TFT tapping procedure into a form of electromagnetic energy, which has a direct and positive impact on the thought field.

The body energy system is not generally known in western clinical practice, though there are isolated pioneers who have ventured to study this level of our organism's functioning and have reported findings with clear implications for the procedures and success of TFT. In the 1940's, Harold Saxon Burr of Yale University provided strong evidence that the body is an energy system and that the state of this energy system is critically significant to the development of all living organisms.

Orthopaedic surgeon, Robert O. Becker M.D. (1985), established the significance of electromagnetic energy fields to bone healing and developed successful treatment methods based on his findings. Through the application of electromagnetic fields, he was able to restore natural healing ability in the human organism in terms of enabling bones that would not heal spontaneously to heal under the influence of governed energy fields. Another fascinating aspect of Becker's research with electromagnetic fields enabled him to unleash regeneration of amputated limbs in frogs. The extraordinary aspect of this work was that frogs normally do not naturally regenerate their lost limbs. Yet, treatments based on the application of electromagnetic energy fields actualized this healing potential.

The relevance of the body polarity state to human health is demonstrated in a study by Louis Langman, M.D., "The Implications of the Electro-Metric Test in Cancer of the Female Genital Tract" (Burr, 1972). Langman's findings make a strong case for the relationship between the well-being of the human organism and its polarity. In this study, Langman found a dramatic difference in polarity between women with cancer of the genital tract and women with no diagnosis of such cancer. Women with diagnosed cancer had negative polarity in the genital

tract 96% of the time, compared with women with no known malignancy who showed negative polarity only 5% of the time. This dramatic difference offers further evidence for the importance of the energy system in the health of individuals. Unfortunately, there is no known follow-up research to these findings. Callahan reported that these results confirm a relationship seen between psychological reversal (a polarity reversal) and cases of cancer, seen by Callahan and a colleague who specialized in psychological treatment of cancer patients (Callahan, 1992).

After twenty years of research, the eminent radiologist and former president of the Nobel Laureate nominating committee, Bjorn Nordenstrom (1983) of the Karolinska Institute in Sweden, published "Biologically Closed Electric Circuits: Clinical, Experimental and Theoretical Evidence for an Additional Circulatory System." Nordenstrom provided evidence of a circulatory energy system within the human body which he believed to be as vital to human health as the circulatory blood system. His research led him to believe that disturbances in the body energy system may be involved in the development of cancer and other diseases. Nordenstrom has been successful in producing complete remission from some types of (previously) hopeless cancers metastatic to the lung through the application of polarity in electric currents.

Pierre de Vernejoul (1985) at Necker Hospital in Paris, France reported empirical evidence for the existence of the meridian (energy) system. His research team injected radioactive technetium 99 into acupoints and followed the isotope's uptake with gamma-camera imaging. Their findings indicated that the radioactive isotope migrated along the classical meridian pathways the Chinese had defined several thousand years ago. Injection of the substance into random locations in the body revealed that they followed no determined pathway. The results suggested that the meridian system is a separate morphological pathway.

Treatment procedures directed at the meridian system have been successfully applied not only in TFT, but in the disciplines of Acupuncture and Applied Kinesiology. The demonstrated robust effectiveness of TFT offers strong evidence for the significance of the meridian energy system to the rapid treatment of psychological disorders. In this era of efforts to find cost-saving health procedures, TFT provides the type of efficient and effective treatment that can help to achieve such objectives in the field of mental health.

The three levels of training in TFT proficiency (Voice Technology, Physical Diagnosis, and Algorithms) allow for relatively rapid training of practitioners who are able to provide effective treatment in a variety of health service settings. TFT-trained clinicians are able to have access to rapid telephone consultations for clients with complex disorders from practitioners trained in Voice Technology. Such available consultations provide for therapeutic support at the highest levels of proficiency for clinicians at all levels of TFT training.

TABLE 1

	Callahan (1986)	Leonoff (1996)
Number of subjects treated	68	68
Successfully treated	66	66
Unsuccessfully treated	2	2
Success rate	97%	97%

Pre-treatment average distress level	8.33 (/ 10)	8.19 (/ 11)
Post-treatment average distress level	2.01 (/ 10)	1.59 (/ 11)
Average treatment duration (mins:secs)	4:34	6:04

All of the research data of this replication study are preserved on recorded audio tapes and are available for further research.

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TFT AND HEART RATE VARIABILITY (HRV): A Report

Roger J. Callahan, PhD

Founder, Callahan Techniques® Thought Field Therapy®

In early July 1997, I received a call from a physician who is clinical director at a medical clinic in Las Vegas. He said that he had some exciting findings regarding TFT. Dr. Fuller Royal, who is an outstanding physician whose patients come from near and far, explained that he had been exploring the use of TFT with his medical patients.

He explained that he was working with Heart Rate Variability (HRV) diagnosis, and that this technology is especially interesting because it yields information about the operation of the autonomic nervous system, among other things. Dr. Royal explained that a most interesting feature of this diagnostic procedure is that it does not respond to placebo, and hence, one is able to test treatment effectiveness with unprecedented accuracy. He found that TFT eliminated patients' complaining symptoms and, at the same time, made striking, rapid and unprecedented improvements in the balance of the autonomic nervous system according to the HRV measure. The HRV measure is well known to cardiologists and is currently being used in research centers throughout the world.

I asked Dr. Royal where he heard about TFT, and he said that he was lecturing at a college in California, and after the lecture, a student asked if he had heard of the Callahan Techniques. What the student told him sounded interesting, and he immediately ordered the professional package from which he learned to do the phobia algorithm.

In his call to me, he said, *"I have done some before and after testing using your technique, and I can tell you that the effect on the autonomic nervous system is nothing short of phenomenal. For example, a 10-year-old boy with learning disabilities and ADD—he is stressed—they (ADD sufferers) have too much energy trapped in the parasympathetic and too little in the sympathetic. This is why sympathetic stimulants like dexedrine and ritalin calm them down."*

He continued, "I had him do your techniques, which took very little time (about three minutes), and we redid the (heart) test. Every single point on the HRV, every factor, went to normal after doing the TFT treatment."

The Heart Rate Variability test is a fairly new modality. It has been around for 20 to 25 years but is recently gaining considerable attention (see my article that follows, "Stress, Health, and the Heart: A Report on Heart Rate Variability and Thought Fielding Therapy Including a Theory of the Meaning of HRV").

The heartbeat carries within it a tremendous amount of information; it is possible now through high-level mathematics to determine what is going on throughout the nervous system. Dr. Royal opined that this procedure will eventually replace a lot of the standard tests that are used in physicians' offices.

Dr. Royal also stated: *"Heart rate variability is the only test known that will not respond to a placebo effect. You cannot trick the autonomic nervous system. We tried placebo, and it is zero. Your treatment works, and it is due to the fact that you are introducing certain frequency patterns. We do the same with homeopathy, but it is slower."* [Dr. Royal has been working on a theory involving thought patterns and illness, which he started developing through his extensive experience with homeopathic medicine.]

Dr. Royal invited me to visit his office. I made plans to go the next Friday, July 18. I got permission to

record his report on video.

Dr. Royal reported that he discovered that when homeopathic remedies work, they are affecting the autonomic nervous system. He stated that in working with thousands of patients on the HRV, one can immediately identify a substance or technique that is going to work.

On July 18, 1997, I visited Dr. Royal's clinic. He invited me to watch him work with his patients. He did pre and post tests with HRV in conjunction with my treatment algorithm. His cases ranged from a 7-year-old girl with epilepsy to a 60ish woman with severe pain. Each and every patient had his/her presenting symptoms completely eliminated with the Thought Field Therapy (TFT) algorithm within a few minutes. Interestingly, a few patients got stuck along the way, and when Dr. Royal did psychological reversal or mini-psychological reversal treatment and then repeated the algorithm, their symptoms, whatever they happened to be, were completely eliminated.

The pre and post tests on the HRV were dramatic (see the TFT and HRV video). The balance between the sympathetic and the parasympathetic nervous systems as well as other indices measured by this test suddenly became more normal. This result was correlated perfectly with the patient's report of the complete decline in their quite varied presenting symptoms. Remember, these were not psychological problems but presenting medical problems that were being treated with the TFT algorithm.

Since the HRV test is free of placebo effects, this is a dramatic demonstration of the power of TFT that fits all previous experiences with this treatment modality. Although we have some experience in treating physical symptoms with TFT with rather spectacular results (with psychotherapy clients who incidentally suffered from such symptoms), it has never before been tested on a strictly medical population such as is now being done by Dr. Royal.

An interesting post script to the meeting: Late Sunday night, two days after returning from the clinic, we received a call from a man who was in intensive care. He was not calling for treatment, but I believe that he was calling to say goodbye in case he didn't survive what was scheduled for the next morning. He had been in intensive care since the day before. His heart was in atrial fibrillation. He did not respond favorably to any of the medications given to correct this problem. In fact, his cardiologist was out of town. As a result, it was later discovered that they were giving him one drug to which he was known to be allergic and which doubtless was making him worse. If his heart did not become normal by the next morning, they were going to stop his heart and restart it with the paddles. I think that he wasn't sure that he could live through this procedure.

If I hadn't just learned of HRV and the profound effect on the HRV test from Dr. Royal, it would never have entered my mind to attempt to treat an atrial fibrillation problem with TFT. Since I had just witnessed dramatic changes of the HRV indices due to a simple algorithm, I thought that I would give it a try with the Voice Technology (VT). I diagnosed a rather complex series of five holons for treatment, which is more complex than the phobia algorithm used by Dr. Royal. This means that the phobia algorithm would not have been sufficient in this case. He called back half an hour later to indicate that his heart rhythm had returned to normal. He was thrilled, as was I!

This is just one case, but when coupled with the results of TFT and HRV, it seems that this avenue of treatment could fruitfully be further explored for addressing various medical problems.

One psychotherapist, trained at the algorithm level, got the wrong idea from this report. He assumed that the phobia algorithm balances the autonomic nervous system. That is not at all the point. A correct treatment is needed to eliminate a symptom and also to balance the autonomic nervous system. Both are a reflection of the same healing process being impacted by a correct TFT treatment. In order to be able to address more complex cases, Dr. Royal has taken the TFT diagnostic training.

Why did the phobia algorithm have such a high success rate in this report? Because every aspect of all of our treatments, which together make up our algorithms, have been tested both for power and

speed of response. When you put together the various treatments that compose any one algorithm, they will often be applicable to a number of different problems than those for which they were designed. Don't be misled, however. We have found that it is far more efficient to use a specified algorithm for a particular problem.

As a result of this work, one might keep in mind that when giving or receiving successful TFT treatment, not only is the complaining problem typically gone, but the autonomic nervous system is going back into a normal balance, among other things.

THOUGHT FIELD THERAPY AND HEART RATE VARIABILITY

Dr. Fuller Royal / Dr. Roger Callahan

VIDEO TRANSCRIPT

Dr. C: We are in Las Vegas, Nevada, in the clinic of Dr. Fuller Royal. Do you want to give us a brief summary of what you are and what you do?

Dr. R: Ah certainly, Dr. Callahan. I am a physician. I have been in practice 37 years. I started out in general practice. In 1980, I limited my practice to allergy, environmental illness, homeopathy, and natural medicines, or as natural as could be, so I incorporate those things in my practice. I was delighted about three or four weeks ago to discover Dr. Callahan's techniques, which included Thought Field Therapy, and had the opportunity to run some tests on several of our patients, before and after. What I mean by tests is that we have the availability to do heart rate variability study. Heart Rate Variability has been developed in Israel, which can be done in a very short period of time in 12 minutes to 24 minutes' time and give you an incredibly accurate view of the autonomic nervous system, as well as the variableness of the heart. And what I have found is that Thought Field Therapy, which I have been using, has a dramatic effect on the autonomic nervous system in correcting disorders that involve the parasympathetic and the sympathetic. The sympathetic nervous system involves the use of the external parts of the body, the arms, the legs, the muscles. It's your fight or flight part of the nervous system, so it burns a lot of energy. The parasympathetic nervous system is primarily internal in its influence, slows things down, is building up, repairing, replacing, vitamins, minerals, cells, etc. At any rate, the autonomic nervous system is extremely important, and we've been doing studies in our clinic for three years in cooperation with researchers from Israel, and we developed this technique, and so as I say, we can do about a 12- to 24-minute EKG and gain a tremendous amount of information as to what is going on in the central nervous system. Eight-seven percent of the brain is operating in the autonomic nervous system area, so it gives us a good look at what's really happening. Here's a lady who, just as an example, who came in yesterday. She and her husband came from Mexico. They are originally from Iowa, and she shows us an extremely dysfunctional HRV test. With her, we did the Thought Field Therapy, and there was a dramatic correction.

Dr. C: I'll zoom in on that.

Dr. R: OK. There was a dramatic correction of the HRV. First of all, let me just explain to you that this test is a measurement of the heart. This test is a measurement of the heart. As you can see, I've drawn a line around this pointed area here. This is what her test showed. It should be wider and broader. Over here, this is very abnormal. There's too much energy being trapped inside the parasympathetic nervous system. There is not enough energy going into the sympathetic nervous system, which is over here. This should be very high. There should be a little bump here, a little bump here, and that's it, and she's got all these extra bumps. There's just too much energy going here. We did the Thought Field Therapy and immediately did another test, and as you can see from these test results, this has begun to improve. It has begun to open up more from this. This is today, by the way, and she also shows a tremendous improvement in her energy in the sympathetic nervous system, and this is the way it should look, so this became normal. All these abnormal patterns in the parasympathetic have disappeared, and these numerical values up here have also now become very

close to normal, as they were not yesterday, so this lady has had an incredible change in her autonomic nervous system. I'd like to say that it is extremely difficult to change the autonomic nervous system, simply because it is such a stable factor. It takes weeks, sometimes, to see a change brought on by medicines such as drugs. The fastest that the researchers in Israel have found in getting the autonomic nervous system to correct has been about four days using what they call non-cognitive biofeedback.

Dr. C: Now, what about the placebo effect?

Dr. R: Ah, there is no placebo effect of HRV. That is one of the neat findings of this new diagnostic test. It has absolutely . . . placebo has no effect on it. When you see a change in the HRV, it's a legitimate change. There is not a placebo effect.

Dr. C: So, we would . . . , like, on her pattern with the HRV, what are the clinical implications of that pattern for her?

Dr. R: The clinical implications are this patient was under tremendous stress. She was very nervous, very tense. She tends to get irritable very easily. There was a lot of negative emotions, a lot of anger. The breathing, which is dominated by the vagal nerve, is in dominance, and she's not in good balance with the heart rate control. In other words, there should be a positive relationship between breathing and the heartbeat. In her case, there was not this relationship, and a lot of negative emotions were present.

Dr. C: How much time had elapsed by the time of the second test—between the first and second test?

Dr. R: Yeah . . . I think I said earlier that this test was done immediately.

Dr. C: Ah . . . immediately.

Dr. R: No, it really wasn't. What we did in her case, I'm sorry. What we did in her case was we waited and repeated the test today, so it's actually been about 24 hours.

Dr. C: I see.

Dr. R: In her case, but I am going to show you one where there was an immediate dramatic response. This is a little girl, who is from about eight years old or six, I believe she is, from one of the towns outside of Nevada and Utah. She has a seizure problem.

Dr. C: Can you turn . . . Oh yes, I see. I saw this little girl. I was there.

Dr. R: Ah yeah, cute little girl... and what we found with her is that she has these very abnormal peaks here. This shouldn't be here. There should be more energy in the sympathetic. She's got too much energy out here in the parasympathetic, which is internal, so what we did with her, and we did do this test immediately after to see what changes would occur. What we did with her was Thought Field Therapy, and what we did was do another HRV without moving her from the table. Again, what I think what you can see is a very dramatic change in the pattern.

Dr. C: Yes, yes.

Dr. R: And the energy in this area has increased the highest it has ever been, and we've been following her for a year, and we've never been able to get her energy up to where it belongs. This is almost 19,000 . . . the best we've ever had. She's going to respond.

Dr. C: Had you been using other treatments for her?

Dr. R: Yes, we had been using homeopathic treatments predominately, and she's responded well, but she did have a seizure, a grande mal seizure, about a month ago.

Dr. C: Uh huh. Yes.

Dr. R: But prior to that, we had been controlling her pretty good. She's been seizure-free for about a year. This was an excellent response.

Dr. C: This was the first time you've done Thought Field Therapy with her?

Dr. R: That's correct. The first time we had done Thought Field Therapy on her. Now here's a young man who is ten years old who has attention deficient disorder and hyperactivity, and I've been following him for about a year or two and treating him with homeopathic medicines. He has very, very low energy in the sympathetic nervous system. Some lines have been drawn here to indicate that he is piling up energy internally, too much energy in the parasympathetic nervous system. What we did with him was Thought Field Therapy to see how he would respond, and we did immediately do another test to see what effects were on the autonomic nervous system.

Now in his case, the results were unbelievable! They were absolutely incredible! You can see this big tall peak here—this is a normal test. There is a little extra ripple out in here, but this is a completely normal sympathetic nervous system response, and the parasympathetic is normal. This was an amazing correction for this young man. Amazing. We are going to have him back in, probably in another week or two, to see if this pattern is being maintained.

Dr. C: Uh huh.

Dr. R: One of the things that I have discovered over the years, because we've been doing non-cognitive biofeedback, is that when the autonomic nervous system corrects from an abnormal situation, many times, the correction is rather sudden and dramatic, and many times, as Dr. Callahan has discovered, the patient thinks that they've always been that way when its a very different change in their personality. They just simply seem to almost forget what they were like before. Now we've seen that happen, but not as dramatically as I suspect it's going to happen with Thought Field Therapy. Um, here is a young man who has autism.

Dr. C: Oh yeah, this is very interesting.

Dr. R: Yeah, this is a young man who has autism. He can't talk. He has great difficulty in communicating. The pre

Dr. C: Which one is the pre?

Dr. R: Yeah, is on the right, right here.

Dr. C: Now what do we look for there?

Dr. R: Well, again, his energy level here is too low. He does not have a nice . . . he does not have a nice peak.

Dr. C: The peak looks high, so is that a relative thing?

Dr. R: That's relative. You can see over here. if you look at the numbers here, this tells you what it should be.

Dr. C: It should be . . . what does that say? Nine? You know, it won't show on camera.

Dr. R: It should be between 18 and 20,000. He's fourteen years old. It's just a numerical value to say that for his age group, that's what it should be. His was only 13,000.

Dr. C: I see.

Dr. R: Now, watch what happens, and he has now what we call a baroreflex. A baroreflex is a part of the sympathetic nervous system, primarily, and he has no bump here. Now, watch what happens

when we did the Thought Field Therapy. He has a very prominent bump here, and look how far he rose. He went from 13,000 to 128,000. This is a huge response.

Dr. C: Wow! 13 to 128,000!

Dr. R: Yes, that's correct . . . a huge response. The other thing you'll notice is that over here where it says distribution, his variability. Look how this is. This is not bad, this is pretty good, but this is even better. He had a much improved HRV. This young man had a very positive response, and he also calmed down. He was very calm. When he came in the next day, his parents stated that they didn't know . . . er . . . they hadn't seen him that calm in a long, long time, so I taught them how to use this therapy with him.

Dr. C: Now, you're just using our simple algorithm.

Dr. R: That's correct. That's about all I know, but it's working! Here's a young man who became very ill in South America. He was down there for about six months or so, became quite ill and was sent home.

Dr. C: What's wrong with this pattern?

Dr. R: This pattern shows . . . his normal should be about 16 to 18,000. This pattern shows that he has a tremendous amount of energy in what we call the baroreflex portion of the parasympathetic (**Note: should be "sympathetic"**). When this is high, it means that the blood pressure tends to drop too low. It usually means adrenal stress.

Dr. C: And what was his complaining symptom?

Dr. R: Oh, he had extremely high fevers, he became severely sick, diarrhea—he was just quite ill. Doctors could not find any reason for him being ill once he returned home, so he came in to see us, and we did on him Thought Field Therapy, and the next day, the following day, you can see a very dramatic improvement.

Dr. C: Which one?

Dr. R: This one is the following day, and you can see where the peak, this peak, which is the baroreflex portion, has gone down significantly.

Dr. C: Let's see. Oh yes, yes. I see it.

Dr. R: Er, towards the normal. His energy has remained fairly good—his pattern overall. This is a fairly normal pattern when you see it dropping down like this. This went down, and this went down.

Dr. C: Yes.

Dr. R: This was a very nice response, so I told him he could go back to South America. He's fine. This was another interesting case. This was a man from Arizona, who came in. He's had lots of problems with allergies. He's not been happy in his work. He's bored. He's irritable. He's a nice fellow, but very unhappy.

Dr. C: Now what's wrong with his pattern?

Dr. R: Now, in this pattern you see the range. This peak up here should only be 12 to 16,000. He has consistently, every time he's come in, shown this very high peak of 67,000.

Dr. C: It should only be twelve something.

Dr. R: 12 to 16 for his age.

Dr. C: How old is he?

Dr. R: This man is 36. He has these extra peaks. There should only be three bumps. He's got one, two, three, four, five, possibly six, and so with him, we did Thought Field Therapy. You see how he responded.

Dr. C: Where's the, oh here it is. Thought Field Therapy on the right.

Dr. R: Right, Thought Field Therapy, and the interesting thing here was that he immediately dropped from 67,000 to this peak

Dr. C: We can't see . . . the angle, it's hard to see, bend that. No, the new one. It's hard to see that. I don't know why.

Dr. R: The peak went down from 67,000.

Dr. C: Oh yeah, now I can see it!

Dr. R: To 47,000.

Dr. C: From what?

Dr. R: From 67,000.

Dr. C: That's a good drop. That doesn't just happen by accident.

Dr. R: No, but the important thing is I had him stay over night and come in the next day for another test. Watch what happens! That's a completely normal pattern, absolutely normal.

Dr. C: A little more time after the treatment, and he moves right into the perfectly normal range.

Dr. R: Is exactly right. The range for the first time. I've been following him for a year. For the first time, this range has actually gone below normal. It's always been extremely high. What this indicates to me is that as a result of this therapy, we have released a blockage in the autonomic nervous system, and this man . . . I fully believe he's going to have an excellent response in terms of his clinical response.

Dr. C: Good! Wonderful!

Dr. R: We have several other cases that we could present. I guess the thing that's really important here is, what is really happening? My feeling is that the autonomic nervous system is being involved, or you are getting into the autonomic nervous system in a non-cognitive approach by using the acupuncture points. By getting a negative thought pattern going, you are able to get into the autonomic nervous system. You're able to eliminate it or erase it through the acupuncture system with extremely positive results, and my feeling is that when you combine these alternative therapies—homeopathy, Thought Field Therapy, possibly some acupuncture, well not acupuncture, acupressure of some type, something that involves the acupuncture system—you have an opportunity to bring about a response, to bring about a healing response that could not possibly come about using mainstream medicine today.

Dr. C: And how did you learn to do this Thought Field Therapy?

Dr. R: Actually, I was lecturing. I was lecturing to some students at a college in southern California on the subject of homeopathy. I was a two-day lecturer over there, and one of the students came up to me after my lecture and asked me if I had ever heard of the Callahan Technique, and I didn't know what she was talking about, and she gave me a phone number and an address. My curiosity was piqued, and so I called it, and I'm very glad I did, because it has been for me a nice piece of the puzzle that has been missing as to how to enter and correct, rapidly, defects within the autonomic nervous system.

Dr. C: Dr. Royal, I want to thank you very, very much. It's been very exciting meeting you, and I thank you for your fine report.

Dr. R: Dr. Callahan, it's been a pleasure meeting you, and I'm so glad that you did what you did, and I suspect you met a lot of opposition when you began.

Dr. C: That's right! We certainly . . . we still do, and may I use this video?

Dr. R: Oh yes, you may! You bet!

Dr. C: OK, thank you very much.

**STRESS, HEALTH, AND THE HEART: A Report on Heart
Rate Variability and Thought Field Therapy Including a
Theory of the Meaning of HRV**

© 2001

By

Roger J. Callahan, PhD

Founder, Thought Field Therapy (TFT)

“Nothing is more orderly than the rhythmic beating of your heart as you sit reading this, you might think. It is the paradigm of physiological regularity on which your life depends in a most immediate way. However, combined with this order there is a subtle but apparently fundamental irregularity: in healthy individuals ... the interval between heart beats varies in a disorderly and unpredictable way. If the inter-beat interval is regular—either constant or itself rhythmic—then this is a sign of danger” [in The Spirit of Science, p. 153].

-Brian Goodwin
Professor of Biology
United Kingdom

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What is Heart Rate Variability?

Heart Rate Variability (HRV) is a valuable predictor of illness and death, but when HRV can be improved, HRV can also be a predictor of life and health. The difference, in the light of our recent clinical research, may depend upon the ability of a healer and the power of a therapy to bring about the desired changes in this crucial measure.

HRV, an instrument of growing importance in evaluating health, is a measure of the intervals between heartbeats measured in microseconds. For good health, these intervals should not be even; they should vary in what appears to be a random or chaotic fashion. This vital variation in intervals may be viewed as a signal that information that enhances health and life is being processed—the converse is also likely the case. This interesting idea will be elaborated upon below. The absence of variation indicates, I believe, a deficiency of vital information processing and the need for a treatment or regimen that resets the vital flow of life-enhancing information.

Thought Field Therapy (TFT) is a powerful and rapid treatment I have been developing since 1979. The evidence, especially with the objective measure called HRV, strongly suggests that TFT is a treatment that at least can reduce and, at best, eliminate stress, eliminate psychological problems, and thereby dramatically promote health.

HRV is An Index of Your Health Status

Would you like to know how healthy or unhealthy you are? Would you like to know if your condition requires professional attention? Would you like to observe changes in your nervous system that can inform you about how well you are responding to a specific treatment? If you have a heart problem, would you like to see how much your exercise program is helping your heart? If you smoke, do you want to see to what degree quitting smoking will help? Do you want to observe what effect various drugs have on your health? Would you like to see if you are at risk for sudden death by heart attack, even though you have shown no symptoms whatsoever?

Although a rare event, some apparently very healthy people suddenly and shockingly drop dead. Such deaths, it was learned in a famous Framingham study (Tsuji et al., 1996), could have been predicted by HRV. While writing this report, I saw in a newspaper article that a top football player at Florida State University mysteriously dropped dead during a practice session. More recently, I read where an All Pro lineman for the Minnesota Vikings suddenly dropped dead in the heat. A number of such tragic and unexpected deaths occur each year, and everyone is shocked and surprised when it happens because “the person seemed to be in perfect health.” HRV may be the only means of predicting the likelihood of this shocking problem that occurs in the absence of clinical symptoms. An HRV test that leads one to obtain an effective treatment may permit the prevention of such an event.

If you are a therapist, would you like to have an objective procedure that will show you how much various therapy procedures you use are helping your clients? If you are a client in psychotherapy, would you be interested in seeing how much the treatments are helping according to an objective measure?

The conventional psychotherapies have been tested in research using control groups

and treatment groups with statistical tests needed to show that treatment is better than no treatment. As the statistician Simon (1992) pointed out, if the researcher has to rely on refined statistical tests to show a difference, “the differences do not matter much” (p. 19). The term “statistical significance” can be an insidious and deceptive phrase, for it conveys that there is clinical significance when clinical significance may be completely missing. I believe that all therapies, especially psychotherapies, should be tested with HRV (Callahan, 2001d).

I am not alone in advocating HRV; experts have suggested that HRV can be used as a measure for monitoring therapeutic effectiveness. I agree with those psychotherapists who predict that HRV will be in use in clinical practice in the near future and will serve as an aid in monitoring therapeutic interventions. As this happens, true objectivity will be possible for the first time in the field of psychotherapy. This will, or at least should, encourage the development and use of more effective psychotherapies. TFT has been able to validate some exciting new therapy discoveries with HRV. I believe that most treatments will be tested by this objective procedure as HRV becomes more recognized. HRV is the very best all-around objective measure of therapy effectiveness I have ever come across in over a half century of practice.

Stress

We hear a lot about stress, and it is, indeed very important. Eysenck (1988), a psychologist in the United Kingdom, showed that psychological stress was a better predictor of death than smoking. Our findings with HRV support this notion (see Figure 1). Many believe that the effects of stress are responsible for numerous physical illnesses. Stress causes the autonomic nervous system to go out of balance. HRV gives an objective result that tells you how much effect stress is having on your body and mind. Research shows that placebo or suggestion does not affect HRV. HRV is an **objective** measure that gives results independent of what is believed, feared, hoped for, or desired.

There is a great deal of scientific research that shows that HRV is the best predictor of illness and death. It is such a good predictor of death, better than any other measure or combination of measures, that it has become known as such. For many years, scientists have been working to find how to improve HRV. They found that giving up smoking (Stein, Rottman, & Kleiger, 1996) and engaging in physical exercise (Stein, Rottman, Kleiger, & Ehsani, 1996) will improve HRV to a small but definite degree (see Figure 1 below). Most, however, make HRV worse. Psychological problems such as depression, anxiety, and trauma make HRV worse. Despite the efforts of scientists worldwide, until recently, there have been no procedures or treatments that dramatically improve HRV. Dramatic improvements in HRV reveal that robust biologic change is taking or has taken place.

HRV—Variability is Healthy

“Variability (in the intervals between heartbeats) is the reflection of a healthy, well-developed ANS (Autonomic Nervous System)” (Hirsch, Karin, & Akselrod, 1995, p. 518). The same authors pointed out: *“the clinical importance of HRV is well accepted*

and beyond any doubt, for the estimation of fetal well-being, probably more than in any other medical field” (p. 518).

Numerous scientists doing research in HRV report that it is the most powerful predictor of all causes of mortality; it predicts more powerfully than any other measure or combination of measures.

How was HRV Discovered?

Stys and Stys (1998) informed us that Albrecht von Haller observed in the eighteenth century that “the beat of a healthy heart is not absolutely regular” (p. 719); however, it took two more centuries and the computer before the measurement of the variation in intervals of the heartbeat became a clinical tool.

In maternity wards, it was common practice, in cases where there was reason to be concerned about the health of an unborn child, to monitor the heart by electrodes attached to the head of the fetus. For many years, despite von Haller’s observation, it was believed that the heart rhythm should be even; however, it was found that unborn infants with near perfect rhythm in the intervals between heartbeats were born dead. Unborn infants with a great deal of variability in their heart rhythms were born healthy. This changed forever the notion regarding evenness of the heartbeat. HRV is in common use in obstetrics.

Since the time of the work with unborn infants, it has been found that low HRV can predict Sudden Infant Death (SID) syndrome or crib deaths. To parallel the work with unborn infants, HRV tests done in hospitals found that as death approaches adults, the intervals between the heartbeat continue to get more and more even until death arrives.

What Happens in an HRV Test?

There are different programs for measuring HRV, but they all involve recording the heartbeat for a period of time, usually five minutes. Then, a specialized computer program computes the intervals between heartbeats in microseconds and analyzes the frequencies, giving information about the status of the autonomic nervous system.

If you were a client of mine, you would be seated in a straight back chair for five minutes while you took the HRV test prior to any treatment. First, I would ask you to think of the problem¹ you want treated and to rate how upset you are on a scale from 1 to 10 where 10 is the worst you can feel. I would then ask you to think of this problem while your HRV is being tested. In five minutes, the pre-treatment test would be over, and I would then administer TFT. The treatment takes a few minutes. After the treatment, I would then take another HRV while you again thought of the problem. If the treatment was successful, you now would be unable to get upset while thinking of the problem. Success is commonly indicated after treatment by the imprecise statement by the client, “I can’t think of the problem.” Since upset has disappeared, after the person has had the thought for many years, the person wrongly concludes

¹ In the absence of a known specific problem, it isn’t necessary to think of anything in particular.

that he/she must not be thinking of the problem. We then evaluate the pre and post therapy HRV scores. The HRV will often show an immediate dramatic improvement.

There are some versions of HRV that take 24 hours, but the more practical HRV's take either five or ten minutes. Experts have pointed out that it is difficult to keep numerous factors constant in a 24-hour test. I use the five-minute version.

Short-Term HRV

In TFT, we have been using an HRV program that conforms to the International Standards (Task Force, 1996). We use a five-minute test while the person is seated in a straight back chair. The software was developed to meet the standards and mathematical procedures for short-term HRV evaluation set by The European Society of Cardiology and The North American Society of Pacing and Electrophysiology (1996).

“An advantage of short-term recordings is that due to restricted duration they can rather easily be performed in very strictly standardized conditions” (Hartikainen, Tahvanainen, & Kuusela, 1998, p. 151). Kawachi, Sparrow, Vokonas, and Weiss (1995) also believed that short-term recordings are superior for clinical purposes than 24-hour Holter recordings and are more appropriate because they are free of so many influences that take place in a 24-hour period.

Stability of Low HRV Scores

Van Hoogenhuyze et al. (1991) reported, *“patients with low variability values have much less day-to-day variation”* (p. 1673). In other words, individuals with low variability do not vary as much as those with normal variability scores. Therefore, if one can improve low variability with treatment, it is even more profound than improving scores that are already in the normal range. I have been unable to find any reports of improving the variability of those who show very low HRV in the literature.

The variability of the intervals between heartbeats is expressed as a standard deviation. This is a standard measure in statistics, which gives an indication of the spread or variation of a set of scores. This score is indicated by the letters SDNN. This stands for standard deviation, normal to normal (as opposed, to skipped) heartbeats.

The test also gives a number of other indices. It gives the status of the two branches of the autonomic nervous system—the sympathetic and the parasympathetic systems. In stress, these systems are out of balance. It is desirable for optimum health to have a good balance between these systems. There is a ratio of balance given between the two nervous systems (sympathetic and parasympathetic), and it is important that sympathetic not be overly dominant. The ratio between the two is, ideally, close to 1.

The heart rate or pulse is also given in the test results. Professionals trained in TFT are aware of the importance of the pulse as an indicator of the presence of toxins (i.e., high resting pulse can indicate the presence of a toxin). A Total Power Score

given, and this is a valuable index, as well. My clinical impression is that there appears to be a relationship between a feeling of fatigue when Total Power is low. I have seen no research on this matter, and this is my present tentative clinical conclusion.

Discovering New Effective Treatments With HRV

Prior to using HRV, I had only one means of knowing whether a particular treatment did anything for my client. That was the use of the report on how the person was feeling. All of my treatment discoveries were supported by client report of reduction of a problem after the treatment was given. Some call this the Subjective Unit of Distress (SUD), and it is expressed on the common ten-point scale. (However, I sometimes get client who, when asked how severe the problem is on a scale where 10 designates the worst, will respond with something much higher than 10, such as 20,000. In these cases, I go with the new scale introduced by the clients and continue treating until they say they are a 1, or the problem is gone.)

I selected each of the numerous treatments that compose my work because of the power of the treatment to immediately reduce the emotional impact of a particular problem. I was limited to this, for I knew of nothing else. HRV has introduced a powerful new means of discovering a treatment that has an effect on the person but may not result in an immediate change in a SUD. I knew that a SUD was not an absolute standard of effectiveness, but it was all that was available to me during the previous two decades of TFT development.

An Example of an Important New TFT Discovery Due to HRV

Here is a dramatic example of powerful treatments, now an intrinsic part of TFT, that were unknown prior to HRV. In the following case, it had been known for many years that wheat was a toxin for the person, and wheat showed positive on TFT testing. First, an HRV base line was taken. Then, another test was done while the person held some wheat near his throat. The new treatment was applied (it took 7 seconds), and wheat was held again while another HRV was taken. You can see that the mere presence of the toxin depresses HRV. Also, please note that a very brief TFT procedure, taking but seconds, can raise HRV while the person is still exposed to the toxin. No SUD was associated with holding the toxin; the person felt nothing.

	SDNN
Baseline	134.1
Holding wheat	72.0 -86%
After 7-second therapy and holding same wheat	152.4 +112%

Other new treatments have also been confirmed through HRV. It has been very clear to me for years that a SUD, although indispensable, had some limitations. For example, I knew from long experience that I could successfully treat a repressed person who had no SUD, i.e., felt nothing when thinking of a problem. We would not know for sure if the problem had been eliminated until the person was later exposed to the situation that brought about the emotional upset. Thus, it was very clear in some cases that a SUD, along with its immediate reduction, was not always necessary in order to know that we had an effective treatment.

We have found that people who repress a problem, i.e., automatically keep it out of awareness, usually show evidence of the problem on HRV. When we treat the problem, we can now usually see the HRV improve, even though the client has no awareness that anything has happened.

The Relationship Between SUD and HRV and the Relationship Between HRV and Other Health Indices

A few studies on HRV and TFT have now been done by Caroline Sakai, Ph.D. and some of her colleagues, Greg Tanida, M.S.W., David Paperny, M.D., Marvin Mathews, M.D., Geri Boyd, M.S.W., Alan Simons, C.N.S., Charlene Yamamoto, M.S.W., Carolyn Mau, C.N.S., and Lynn Nutter, M.A., from Kaiser Behavioral Health and Behavioral Medicine Services of Honolulu; by Mark Steinberg, Ph.D. of Los Gatos; a superb report of successful treatment of trauma in Kosovo survivors, by Carl Johnson, Ph.D. and his medical colleagues, Mustafe Shala, M.D., Xhevdet Sejdijaj, M.D., Robert Odell, M.D., and Kadengjika Dabishevci, M.D. Two studies and a reply to critics by me are also presented in this collection. For pre-publication copies of my papers, see www.tftrx.com. These studies are published in the *Journal of Clinical Psychology* under special invitation, i.e., no peer review. Instead, critiques of the research were presented along with the papers by known critics of my work.

The TFT studies show a very strong relationship between HRV and client report of how they are feeling. When a client is treated with TFT and reports a major improvement (within minutes) of a psychological problem or pain, the HRV typically shows a dramatic improvement. Sakai et al. also presented some laboratory indices that improve with TFT treatment.

Home HRV Models

I can remember when the only way to get your blood pressure measured was to go to a doctor's office. Of course, today, many people have home blood pressure equipment. At the present time, I know of no home model that is suitable for HRV. By home model, I mean one costing less than \$300 that gives the actual variability measure, which is called SDNN. It is the SDNN score that is used in most of the serious health research. I have been urging our HRV provider to develop such a model, but as yet, it is not available. I believe that once the general public realizes the extreme importance of HRV, there will be a huge demand for adequate HRV models.

HRV as an Objective Measure of Stress

Porges (1995) proposed that an aspect of HRV, cardiac vagal tone, is an objective physiological indicator of stress. He further pointed out that this measure can be used across mammalian species as such a measure. Interestingly, TFT has been used successfully with infants and very young children, as well as with cats, dogs, and horses.

Singer and Ori (1995), writing in a standard text on HRV, stated, "*HRV can be used*

as a simple tool for monitoring therapeutic effectiveness” (p. 434). Our results strongly support this idea, as well as the suggestion by Cohen et al. (1998) that HRV may be a useful way to monitor the results of psychotherapy. In TFT, we are using Heart Rate Variability (HRV) as a research instrument to objectively test the therapy effects of TFT. HRV is also being used as an aid in discovering new effective treatments in TFT, as well as to measure various nuances of TFT. The use of HRV has allowed me to make some important new supportable speculations as to some of the underlying major causes of low HRV, apart from stress, and will be presented in a future report.

Our results with HRV support the idea that TFT is a powerful therapy for psychological problems, and that TFT can also be used as therapy to dramatically improve hazardous HRV scores. Such scores, the research indicates, are the best predictors of mortality. As TFT is increasingly replicated elsewhere, it will be seen for the first time that a psychological treatment will be able to make a dramatic, profound, objective, and obvious (according to HRV), contribution to heart health as well as to general health. An advantage of TFT is that it is a natural, non-invasive, and yet powerful contributor to restoring cardiovascular and autonomic regulation. Many drugs, on the other hand, worsen HRV. Fei (1995), writing in the HRV textbook, said, *“A central nervous system mechanism may be involved in the negative influence of sedatives, analgesics, and anesthetics on HRV. Adinoff et al. reported that diazepam decreases HRV in a dose-dependent² manner. Several studies have demonstrated that HRV is decreased by anesthesia”* (p. 283).

Fei (1995) also observed, *“Mental activity may also significantly influence HRV in normal subjects and in patients following myocardial infarction”* (p. 283). My work with TFT and HRV lends strong support to this latter statement, especially if the mental activity is stressful. Further, it will be shown that a powerful, non-invasive psychotherapy can have a greater impact on HRV than any other known therapy procedure.

An objective instrument has the value, among others, of extending the range of possible investigations. For example, there is no SUD (conscious awareness) for high blood pressure; one must have a machine to measure it. Also, there is no SUD for hazardous HRV or for indicating the balance of the autonomic nervous system, although a high SUD does suggest, according to our research (Callahan, 2001b) autonomic imbalance. There are numerous sudden deaths that carry no advance warning for sub-clinical heart conditions; however, HRV can provide this much-needed warning. The evidence strongly suggests that TFT can provide a preventive approach to this catastrophic condition.

Worry Over Possibly Having a Heart Attack

If you are afraid you might be vulnerable to a heart attack, the usual response is to worry about it. You know it doesn't help to worry about it, but you just can't help

² The phrase, “dose-dependent manner,” has important scientific causal implications. This is one of the ways we scientifically evaluate TFT. The SUD, and now the HRV, respond to our treatments in a dose-dependent manner. Of course, with TFT, the HRV is improving in a dose-dependent manner, while with most drugs, the HRV is worsening in a dose-dependent manner. Despite this fact, there certainly can be reasons where, due to benefits, drugs may be strongly indicated in individual cases.

yourself. The very thought of it simply terrifies you. TFT can usually help this problem.

Here is an example we had in our office. The 35-year-old professional man lost his father to an early heart attack. As an expert professional himself, he knew very well that he should not worry and that it only made things worse, but he just could not help himself. He was extremely afraid of taking the HRV test and discovering that his worst fears might be justified.

In this case, he did not respond to a TFT algorithm. Further, he did not respond to our next level up, causal diagnosis. It was necessary to use TFT Voice Technology in order to eliminate the worry about having a heart attack, as well as the fear of taking the HRV test itself.

His pre-treatment SDNN (while fear and worry were present) was 49.7. After algorithm treatment, the SDNN was slightly lower and still in the forties. The next day, he received our higher level treatment that included causal diagnosis, but the SDNN was still in the high forties. He still felt very worried and was fearful of taking the HRV. The next day, he was treated with Voice Technology (VT), and immediately, the fear about his heart and taking the HRV test were both totally gone. His SDNN **after VT was 148.6**. This is an increase in HRV of **198%**. Nothing comparable to such a positive improvement is reported in the HRV literature. A follow-up of six months demonstrates that these gains have held. I believe that his fear could have killed him (Kawachi et al., 1995), but there is no trace now of that dangerous fear.

Nervous System Status and HRV

Stress, among many other things, throws the autonomic nervous system out of balance. In addition to showing the status of the autonomic nervous system, HRV can also indicate the degree of deterioration of the nervous system in diabetes, as well as in alcoholism and other possible neural degenerative conditions. This important fact can permit action to prevent further deterioration with effective treatment. Stress is usually accompanied by an imbalance in the autonomic nervous system.

Why Doesn't Everyone Know About HRV?

The first article on HRV to appear in the *Annual Review of Medicine* was in the 1999 edition. It is still rare for the general physician or health provider to know about HRV. Again, I believe this lack of knowledge is mainly due to an inability to do anything about poor scores on HRV.

Like TFT itself, HRV has been a well-kept "secret," even though it has been available for at least two decades; however, a growing number of psychologists are becoming aware of HRV. Few physicians, apart from neurologists, obstetricians, internists, and cardiologists, know about HRV. A major reason, I believe, was given by a physician I met a few years ago who had been trained at Harvard Medical School two decades earlier and who participated in research that was then being carried out on HRV. He

observed me eliminate chronic psychological problems in minutes in two people. He was shocked to see how much the HRV improved after the problem was gone.

He told me that he always thought that HRV was a very interesting measure, but since nothing could be done about it, he lost interest in it after leaving medical school. HRV has become known as a reliable predictor of death.

One European cardiologist recently wrote an article that concluded that until we have a procedure that will clinically improve HRV, HRV may remain nothing more than a research toy (Huikuri et al., 1999). A most interesting research toy, indeed, I might add. TFT is changing this helpless and rather dismal view.

Magnitude of Change in HRV

Engaging in regular exercise and quitting smoking (see Figure 1) result in definite improvements in HRV in the neighborhood of 10% to 20%. The magnitude of the HRV change, according to experts, is likely too small to generate radically improved biological change. This notion clearly implies that changes much greater than this amount may well be an indicator of underlying improved biological change. The large HRV improvements due to TFT may suggest, in this light, radical biologic improvement.

Depression, HRV, and TFT

Depression is known to add a serious risk for heart attacks. In an effort to see if something could be done about this risk, an important recent study (Carney et al., 2000) investigated depression and Cognitive-Behavioral Therapy (CBT). Up to 16 CBT therapy sessions were given to a group of depressed heart patients. HRV's were administered to the patients pre and post therapy. The SDNN scores were slightly lower (-4%) after CBT treatment. This dismal result caused the authors to speculate that depression may cause some serious permanent damage to the mechanisms that are responsible for variability in the heart.

In order to check on this alarming notion, I examined eight cases of clients with severe depression who were treated with TFT and who also received HRV tests before and after treatment. In each of these cases, the depression was completely eliminated (in minutes), and the variability in the HRV improved by an average of 80%. My results strongly disagree with the dismal notion of permanent damage of variability of the heart due to depression. Also, in my small but significant study, the original SDNN scores were much lower in my clients than the scores in the CBT study. To see other favorable results with TFT and HRV, see the special issue of *The Journal of Clinical Psychology*, volume 57, number 10, 2001, for some of our studies, as well as critiques of these studies. The implications of our findings, we believe, are very important for health.

TFT and HRV

HRV is a good demonstration of the power of TFT. As pointed out, HRV has permitted some new discoveries and supports some of our previous findings

regarding toxins. Immediately after obtaining HRV, my wife, Joanne, and I were able to show that what we call toxins (see below) can have an immediate adverse effect on HRV. This finding has now been confirmed by other TFT therapists using HRV.

Toxins or Individual Energy Toxins (IET)

When most people think of toxins, they think of mercury, cadmium, lead, insect killers, air pollution, radiation exposure, etc. These items are universally toxic, and not much can immediately be done about them other than avoiding them. The IET toxins occupy our main interest, for these are the ones we can avoid. When one avoids the IET's, the other toxins appear to do less harm, and their effect is often neutralized with TFT treatment. The general meaning of toxin is a poison, and it is in this sense that I use the term. Different fields of medicine and botany may have unique and specialized definitions, but it is in the sense of a poison that I use the term in our therapy context.

When I refer to IET, I mean foods, drinks, and supplements that may be fine for other people, but for certain individuals, they create many problems and extreme vulnerability to problems. For example, wheat can be a healthy food, but for some people, wheat can generate terrible problems such as chronic fatigue, heart palpitations, and severe lung problems. IET simply highlights the fact of the role of individual differences; e.g., wheat may be a poison for some people. When I use the term, "toxin," in our context, it is in this sense.

IETs and Fatigue

Years ago, I suffered from chronic fatigue for over 20 years. During these years, I visited any number of physicians, specialists, chiropractors, acupuncturists, etc. and found to my dismay that none of them could help me, nor did they have the slightest idea as to the cause of my problem. When I started working on myself about 22 years ago with some of my new discoveries, I found that my problem was due to specific IET's. When I avoided these toxins, which I identified with my diagnostic procedures, my fatigue was gone! If I accidentally was exposed to a toxin, my fatigue would return. I found to my dismay, through my own work with myself, that I was a highly multiple sensitive person. Although I was curing many others with ease with TFT, I often had trouble helping myself with a problem. My algorithms never helped me personally, even though the majority of people were greatly helped with the recipes I developed for various problems³. My own experience led me to find that what I call Individual Energy Toxins (IETs) were the major cause of my chronic fatigue, and they kept the treatments from working. We now have a very high success rate in eliminating fatigue and also identifying the particular causes of this problem.

The Relationship of Toxins to HRV

One of our trainees has had a severe reaction to potatoes since childhood. Potatoes showed bad on a TFT test. A baseline HRV was taken, and the SDNN looked very good. When he was asked to hold a potato on his chest during an HRV test, his SDNN crashed and went into the hazardously low range. He noticed no change in

³ See TAPPING THE HEALER WITHIN for many of my algorithms for various problems.

his SUD while doing this experiment. The importance of this finding, which has been replicated by others, cannot be overemphasized. After TFT treatment, his SDNN went back to normal while holding the potato. The latter demonstrates a fact long known to TFT, i.e., if we could not often overcome the transient effect of a toxin with TFT, we never would have been able to achieve the great success we now have.

We have a number of examples of a person having a low HRV. We do a test on their clothing, e.g., a shirt. The shirt tests as toxic (probably the laundry soap or cleaning fluid), they remove the toxic garment and do a re-test of HRV, and the scores make a major improvement. Here is an example:

This person was given an HRV, and he had taken many previously. This day, his score was uncharacteristically low. The SDNN score was 41.3. The therapist tested the person's shirt, and it was found to be toxic (such a finding happens with regularity, due, I believe, to the perfume in many laundry soaps). The shirt was removed, and another HRV was taken. The SDNN was 118.5. This is 186% improvement simply by removing a toxic shirt. The simple act of removing an exposure to a toxin resulted in an unprecedented gain in SDNN.

The role of toxins in HRV, a discovery of major importance known to a few experts, was evidently explicitly unknown prior to my work. Without doubt, the role of toxins in adversely affecting HRV will become widely known and will ultimately be recognized as a major finding in the field of HRV and in health. We find that toxins not only can worsen HRV, but we find that the avoidance of toxins can gradually improve HRV scores. Most of the time, an HRV improves immediately after TFT treatment. When improvement is not immediate, we have found that the person needs to be treated and observed over a period of time with continual HRV monitoring. Though most people improve immediately upon receiving TFT, I have found that recalcitrant HRV scores may be dramatically improved with the combined regimen of toxin avoidance and TFT treatment over a period of months.

Inertial Delay and Toxins (IETs)

In physics, the term, "inertia," is a more specific term than mass⁴; therefore, I prefer to use it. Gel-Mann (1994) pointed out: *"Although we have ascribed quasiclassical behavior to the heaviness of objects, it would be more accurate to ascribe it to motions associated with sufficiently high inertia. A batch of very cold liquid helium can be both large and heavy and nevertheless, because some of its internal motions have low inertia, exhibit bizzare quantum effects such as creeping over the edge of an open container"* (p. 151).

A good general example of inertial delay is when a jumbo jet is landing. Soon after the wheels touch the ground, the engines are put into reverse thrust. If there were no inertia or little or no mass relative to the engine thrust, the aircraft would immediately move in the opposite direction; however, the great mass of the plane causes the reverse thrust of the jets to merely begin to slow the jet down, rather than cause it to move in the opposite direction.

⁴ In physics, inertia is a more precise term than mass. There are some masses that have little or no inertia.

Those familiar with TFT are aware that the treatment results are usually immediate. One moment, a phobia or depression, intact and having caused great suffering for years, is there, and then, it is gone. When I first discovered TFT, the immediacy of the result was a profound shock. The first client with whom I used TFT had a life-long severe phobia that did not respond to conventional therapies that I tried for over a year and a half. When I used what I now call TFT with her, every severe symptom of her problem was immediately gone!

After having other similar success with instant dramatic results, I was able to explain this unprecedented result when I realized that in treating mental problems, one is dealing with much less physical mass than treating a physical problem. A broken bone, which has more mass than a mind problem, must be set, and most will heal in a matter of weeks or months; they do not heal instantly. I believe this is due to the greater mass involved in a broken bone.

Exceptions to the rule have been observed over the last 22 years. A very small number of people show a delayed response to the treatment. All experienced therapists in TFT have observed this interesting and unusual (to TFT) phenomenon. The time involved before a problem is completely gone after treatment, in these atypical cases, may vary between minutes, hours, or, in very rare cases, even as long as a week. I call this phenomenon "inertial delay." I call it this, for I believe that it is a result of more mass, or body, being involved in a problem than is ordinarily the case when treating psychological problems. I believe this delay is due to the effect of toxins affecting the body and, hence, involving more mass.

When my causal diagnosis procedure is used correctly, the condition that signifies the possibility of inertial delay is when no further signs of the problem are revealed by my causal diagnosis, yet the client reports that the problem is still there. We then await (as well as hope for) an inertial delay.

In all cases of inertial delay, we have found the presence of toxins as a complicating factor. The toxins are acting upon the body in various negative ways, and we believe that the mass of body involvement in the problem results in the delay in response. Interestingly, we find HRV supportive of our notion of inertial delay.

HRV Examples of Inertial Delay

Here are examples of a delayed reaction to treatment, as shown by HRV. The person received causal diagnosis, which was continued until no further trace of the problem showed. The treatment took about 5 minutes; however, it took about 45 minutes before the client reported that his feeling of tiredness was totally gone. This correlated with a dramatic improvement in the SDNN, as well as the power score. The first measure at 8:02 was before therapy was given. The second HRV was at 8:12. There was only a slight change, and the client felt about the same about the problem as before treatment; however, after this slight (about 45 minutes) delay, the problem was reported to be gone. This improvement was reflected in the dramatically improved HRV.

Time SDNN

8:02 54.6

8:12 62.4

8:48 168.6

Chaotic Re-Set

Another interesting result of treatment as viewed with HRV is that once in a great while, it may appear to get worse after treatment. This is very unusual, but it can happen. I believe that this is an example of inertial delay with the added feature of a major re-setting of the mechanisms of control. Here is an example of what we have come to call “*chaotic re-set.*” At 6:33, the HRV score not only does not improve, but it first gets worse before getting better. About a half hour later, with no further treatment, the score gets dramatically better.

Time SDNN

6:24 65.9

6:33 39.3

7:05 149.6

Examples of Immediate Improvements in HRV

For the almost immediate improvements in HRV, here are some reports of cases presented in TAPPING THE HEALER WITHIN (Callahan & Trubo, 2001).

Stephen is a 50-year-old physician who has suffered from depression and hopelessness for a number of years. He did not receive help from either various psychotherapies or various medications. His SDNN before treatment was 32.2. This is quite low, indicating that there is little variability in the intervals between heartbeats. Another way of viewing this is that his system is under extreme stress, and the amount of information processing necessary for good health is quite restricted. This low score also suggests a high state of stress. This conforms to the SUD of 10, which has been chronic for a number of years.

After a few minutes of TFT, his depression was reported to be gone (SUD=1). His SDNN score was now 144. This was an increase of 347% in his SDNN score. Such an increase is unprecedented in the clinical literature. This result suggests further that his system was free of stress as a result of TFT. Naturally, one must continue to observe the client as well as give repeated HRV's to ensure that the gains remain. I have found some parameters that can raise and also lower HRV. We know, e.g., that the most common cause of a reduction in HRV is the role of toxins, which were briefly discussed above.

Here is another case taken from the same book. This physician's heart stopped one month earlier. Fortunately, he was in a hospital, and after much work, his heart was re-started. His pre-therapy SDNN was 16.3. This is quite low and likely indicates a hazardous degree of illness. Immediately after TFT, his SDNN increased to 91.4! This is an astonishing increase of 416%! Again, I have seen nothing of this magnitude reported in the literature of HRV.

Results such as this appear to indicate that a person can, with proper treatment, be suddenly thrust from a hazardous position into a position of seeming biologic health. I should state that not all our clients show immediate results as dramatic as these two examples, but most of them show unprecedented increases in HRV as a result of TFT treatment. Such patients also need to be seen by a competent health care specialist.

When TFT Does Not Immediately Improve HRV

The Framingham study reported that low SDNN predicted, in retrospect, those who died of a sudden heart attack. These individuals had no indication of a problem until it was too late. This suggests that HRV can identify possible problems in advance of any obvious symptoms.

The majority of people we treat with TFT show immediate improvements in their HRV scores; however, there are some recalcitrant cases where repeated TFT treatments over a few days do not result in an improved HRV. Here are a few examples taken from our three-day training course, which includes training in the clinical application of HRV.

This is a 60-year-old psychotherapist who smokes, is grossly overweight, and consumes large quantities of beer. He asked us to do an HRV, and the result was quite disturbing. His SDNN ranged from a low of 8.1 to a high, during the three days, of 21.3. His average SDNN after 10 HRV's taken during the three days was 10.8. Here is a case where the major problem is not due to psychological stress (which is easy for TFT to eliminate), but rather is primarily due to toxins. Both cigarettes and beer tested as toxins.

He became a client, and I treated him with Voice Technology (VT), which is done over the telephone. I recommended that he see his physician as soon as he got home. I treated him for his addiction to cigarettes and beer, as well as treating him for every source of stress we could discover.

The VT treatment has gone on for a year, and his latest HRV shows how much he has improved as a result of avoiding all toxins discovered with VT.

Pre-therapy SDNN (11 months earlier) 10.2

Compare the HRV to after 11 months of therapy (taking less than four hours) with 45 sessions averaging less than 4 minutes each; some were only 1 minute.

Post-therapy SDNN is 128.3

The SDNN has increased by 1158%. As far as I am able to determine, such gains do not appear in the clinical literature on HRV. It is important to note that in this case, as well as a few others, avoidance of TFT-diagnosed toxins, as well as TFT treatment was required over a long period of time. Such cases are exceptions in the annals of TFT, but it is important to know that all is not lost if the person does not show an immediate improvement in HRV after TFT; there is still reason to have hope.

Usually, we can immediately improve HRV, but here is another case of interest taken from our training. A woman did not feel well but had no idea that anything might be seriously wrong. After treating her each of the three days with TFT during the training, her last SDNN was 12.2. I strongly advised her to see her physician as soon as she returned home. She did, and much to her surprise, she had severe (conventional) toxic poisoning due to an industrial accident. She has undergone medical treatment for this and has improved greatly. Alas, we do not yet have a more recent HRV.

The reader should not get the impression from this report that TFT can always improve HRV. I believe we can improve HRV in most cases, but I am quite prepared to believe that some cases will be beyond any ability to improve HRV. With increased experience, I am certain that we will encounter cases that will not improve with our best and most thorough efforts. Until that time, it appears worthwhile to try every finding we have made before giving up on any case.

Can Positive Changes in HRV be Translated into Better Health?

Two recent studies on depression and heart problems, Carney et al. (2000) and McFarlane et al. (2001) used the SDNN, measured on a 24-hour basis, as an index of health status. Carney et al. used Cognitive Behavioral Therapy, and McFarlane et al. used the drug, sertraline, to help depression. As mentioned above, in the Carney et al. study, SDNN declined by a non-significant 4%. McFarlane et al. showed a 5% improvement with the use of the medication, sertraline.

“During the 22 weeks after the acute infarction, the average SDNN for the sertraline group increased *a modest 5% from 110.6 to 115.4*. . . . Conclusion: In depressed patients who have survived the acute phase of an MI sertraline facilitates the rate of recovery of *SDNN, a recognized predictor of clinical outcome* (McFarlane et al., 2001, p. 146) [my emphasis].

One TFT therapy session, averaging a matter of minutes, improved the average depressed person’s SDNN from 57.5 to 105.7. This is an average increase of 84%!

Of interest in both of these studies of depressed patients with heart problems is the rather high initial SDNN, which is in the 100’s. In my brief report on the treatment of depression with TFT, the initial average SDNN was much lower, which indicates that the depression had a greater negative effect on the patient than those treated with CBT. The research suggests that it is more difficult to improve very poor scores, yet TFT dramatically improved the SDNN scores of depressed clients. I wonder if patients

with very poor SDNN scores, known to be more difficult to change, might have been excluded from the Carney et al. and McFarlane et al. studies.

It is very well established that HRV is the best predictor of death, and that poor HRV is associated with numerous medical and psychological problems. All of the evidence **suggests** that improved HRV will result in improved health. The first relevant fact is that many people feel much better after TFT treatment, and their HRV reflects this improvement. Research will certainly be done to find out with precision what happens as a result of dramatically improved HRV; however, due to the overwhelming evidence of the role of poor HRV and health, the burden appears to be on those who would argue that dramatically improved HRV would make no difference. This ultra-conservative position entails refuting the overwhelming evidence that exists regarding HRV as a predictor of mortality and a close associate of various illnesses. Would such people argue that now that HRV can be dramatically improved, for the first time, it is no longer the best predictor of mortality? Future research will provide the definitive answer to this important question, and this research is urgently needed.

Stein and Kleiger, writing in the 1999 Annual Review of Medicine said, *“There is no direct evidence that increasing HRV will improve survival rates. On the other hand, many, though not all, of the interventions associated with increased HRV and decreased mortality are also associated with increased HRV”* (p. 256).

I remind the reader that the interventions in HRV results of which these authors were aware do not begin to compare to the dramatic changes now possible due to the power of TFT. It is most important to keep in mind that our interventions also improve HRV, even for those who have very poor HRV scores. The research shows that poor HRV scores are more stable and resistant to change than those in the normal range.

In TFT, we repeatedly show that toxins can have a powerful and dramatic negative effect on HRV. If one wishes to repeat our finding, the person should have a good SDNN score; i.e., above 100. If it is very low, toxins may have already had such a bad chronic effect that no result may be observable when a toxin is added (by added, I mean the person merely needs to hold it). We discourage the ingestion of a known toxin, and it is not necessary for this demonstration. The issue here is similar in principle to a study of trauma done on war veterans who have been traumatized. The investigators wanted to see what effect thinking of traumas would have on HRV. The PTSD victims had an already low HRV score. The Israeli researchers, Cohen et al. (1998), observed, *“The lack of response to the stress model applied in the study appears to imply that PTSD patients experience so great a degree of autonomic hyperactivation at rest, that **they are unable to marshal a further stress response to the recounting of the triggering trauma** (my emphasis), as compared to control subjects”* (p. 59). The same problem will be true in the situation where one’s condition is already severely compromised by toxins. The person may have so low an SDNN that no further effect can be shown on the SDNN by adding a new toxin.

Making Sense of the Many Facts Associated with HRV

It is a challenging task to briefly convey the way I view HRV, but I will do my best. Although I have taken information from a few different sources, the integration of

these ideas into a possible explanation of HRV is solely my own. The creative and brilliant people I quote are not responsible for errors I may make in interpretation. I very much welcome informed criticism of my ideas. First, a few important and basic ideas need to be presented as basic to my interpretation.

Defining Life

Arthur M. Young (1980) has described the difficulty in defining life:

Biologists have long sought for criteria to distinguish the living from the non-living. Is it growth? Reproduction? Sensitivity? Photosynthesis? If growth then we would have to include the polymer chemicals. If self-reproduction, we should include chemicals—notably the virus (which by other criteria is a kind of molecule rather than a life form). If sensitivity, then we must include metals, whose sensitivity to fatigue and poisons was specifically studied years ago by Bose, and is now generally recognized. If photosynthesis, then the fungi, which are classed as plants, would not qualify . . . and so it goes.” It is difficult to find a criterion to separate the living from the non-living (p. 175).

Life and Health

Quantum physicist Erwin Schroedinger (1944) wrote a science classic admired and referred to by biologists, including cell communication expert Loewenstein (1999) (see below). In *What is Life?*, Schroedinger introduced (from physics) the concept of entropy in the form of its opposite, negentropy, as the pivotal idea in understanding life. Entropy is the tendency of organization to go into disorder, while negentropy is the localized exception to the Second Law of Thermodynamics. The Second Law is the most highly regarded law in physics. Schroedinger attempted the difficult task in order to explain life.

As far as I know, an explanation of health as a degree of life has never been done, though it is quite possible that it has been done and I am unaware of it. It is possible that the relationship is just taken for granted as a self-evident fact. In any event, the HRV appears to lend itself to my notion of health as a degree of life or distance from entropy.

Entropy

What is entropy? Imagine a highly organized library in which initially, every book is in its proper place, but the books are never returned to the proper place after use. The entropy (disorder) of the library, like some of our personal workspaces, increases with time⁵. A deck of new playing cards is arranged according to suit and number. Foster (1985) wrote, “If we now shuffle the cards then we increase their entropy, their state of random disorder, until they come into a state where no further shuffling can increase the random disorder, in which case we have reached maximum entropy” (p. 34). Many years ago, the physicist Boltzmann showed mathematically that any

⁵ In fact, some physicists suggest that entropy itself is a marker for the difficult concept of time.

disorder, even of a deck of cards, is another legitimate expression of entropy. Death, for a formerly living creature, represents maximum entropy.

Young (1980) explained:

Life moves against the current of entropy; it locally violates the second law of thermodynamics. This law states that any given distribution of states, such as hot and cold, ordered and disordered, tends to average out. A glass of cold water, left in a room of usual temperature, gets warmer; a glass of hot water gets colder. Stones roll down mountains and fill valleys. The sheets of a manuscript, when scattered by the wind, lose their ordered position; cards when shuffled, attain more random distribution. All non-uniformity eventually evens out, becomes more average (p. 175).

Young (1980) then stated even more succinctly, “*The more correct statement of the law of entropy is that order tends to revert to disorder. Energy itself neither decreases nor increases, but the availability of energy decreases. In other words, order is available energy*” (p. 176).

What is the Meaning of HRV?

HRV measures the intervals between normal heartbeats; this interval is then expressed as SDNN, or the standard deviation of these (NN = non-ectopic or normal to normal) intervals. What is the meaning of this interval that predicts death (total entropy) better than any combination of other medical indices?

An important clue to understanding this meaning is subtly suggested by Schmidt and Morfil (1995), who made a most important provocative but almost casual statement about HRV. It is the only place I have found such a comment, and I believe it to be most profound. They observed: “***Rhythmicity, a major feature of the electrocardiogram (ECG) signal is a characteristic of biological systems and deviations from rhythmicity are often associated with information transfer***” (p. 87). Information transfer is a vital process (see Loewenstein, 1999), and DNA itself, the very foundation of life, is pure information, according to the molecular biologists. Could Schmidt and Morfil be correct? I think they are, for the idea coheres with modern biology, and it coheres with what I believe is happening in successful TFT (Callahan & Callahan, 2000).

In order to be healthy, our cells must communicate with each other. Cell communication expert Loewenstein (1999) observed, “*It is not energy that counts in biological systems, but information*” (p. 59). The brilliant theoretical physicist, David Bohm, once commented in discussing illness in a radio interview: “*We call illness a disorder; however, if there were no order within the disorder, then no help would be possible.*” I believe that TFT, more specifically, the causal diagnosis of TFT, reveals the necessary sequence of treatments that restores order to a relatively disordered being and apparent chaos to the interval between heartbeats.

A highly relevant book for students of TFT is *The Philosophical Scientists* by David Foster (1985). It gives the clearest picture of coding and life that I have come across.⁶ Coding and de-coding are the basis of our causal diagnostic procedures, as well as the basis for the algorithms⁷ I discovered and developed. The treatments we obtain from my causal diagnostic procedures are highly specific information in encoded form. Foster is intimately familiar with the practical uses of coding, for he designs computer-run automobile factories and sees coding as the basis of this work, as well as the basis for molecular biology and life.

Foster (1985) wrote, “*Almost all physical processes are wayward and subjected to shuffling and disorder*” (p. 105). Shuffling is a mindless activity, while sorting is a conscious process. You can think of other things when you shuffle cards, but you must have some degree of conscious awareness if you are attempting to sort things into a highly ordered state.

Healing: Active Induced Negentropy?

The body consists of physical processes, and a central mystery to molecular biology and medicine is how does healing take place? As I see the process of therapy, it seems like TFT is an obvious strong example of *active induced negentropy*. Foster (1985) noted that we do not know how Nature repairs damage (heals). Although we still do not know exactly what is going on, it is now possible to control and induce healing (negentropy) through appropriate administration of TFT.

The more we understand exactly what is taking place, the more effective we will become in helping people. A good understanding can help to integrate the many new facts available as a result of our work with TFT and HRV (Callahan, 2001a; Callahan, 2001b; Callahan, 2001c; Steinberg, 2001).

Due to my clinical observations with TFT and my interpretation of the facts associated with HRV, I propose that the SDNN measure of HRV is, as hinted by Schmidt and Morfil (1995) (above), a direct measure of the processing of relevant life and health information. Keeping in mind that total entropy is equivalent to death, it is important to note that it has been observed first in newborn infants, and later in adults, that as the person approaches death, SDNN continues to progressively decrease, leading to total entropy or death. The opposite side of this is when we treat someone with severe debilitating symptoms such as clinical depression who shows very little variation in the HRV. The person immediately feels better with no trace of depression (or other severe symptom), and the SDNN score of the HRV increases greatly (Callahan, 2001a). It is of relevant interest in this context that the pattern of a strong correlation between SUD and HRV is a common finding in TFT research (Callahan, 2001b; Steinberg, 2001).

⁶ I am most grateful to psychologist, Dr. Gary Emory, for giving me this book.

⁷ Although one does not need to know causal diagnosis in order to carry out my algorithms, my algorithms were all discovered and developed through my causal diagnostic procedures.

Dardik's Penetrating Question

Dardik (1996) asked a most penetrating question: *“Why does HRV emerge as a single common risk factor for virtually all chronic diseases at all ages? . . . The finding of one single risk factor for such a wide variety of problems is unexpected”* (p. 67). Here are some of the problems associated with HRV and altered autonomic function that Dardik cited:

Behavioral disorders; in utero and infant mortality; sudden infant death (SID) syndrome; HIV/AIDS infection; drug addiction; juvenile delinquency; death from cancer and cardiovascular disease; progression of coronary artery disease; multiple sclerosis; diabetes mellitus; obesity; adult criminal behavior; brain injury; neurological disorders such as Guillain-Barre syndrome; and orthostatic hypotension of the Shy-Drager type (p. 67).

In addition to the above, a recent study has shown that HRV predicts sepsis (infections) in infants (Griffin & Moorman, 2001). The Task Force of the European Society of Cardiology and the North American Society of Pacing and Electrophysiology (1996) added that HRV *“may be useful in quantitating the rate of disease progression and/or the efficacy of therapeutic interventions (my emphasis)”* (p. 1060).

To cite still another interesting example reflected by HRV, Porges (1995) reported that circumcision in infants causes severe stress, as demonstrated by a sharply lowered HRV.

Successful Therapy Increases Flow of Information (Negentropy)

When we successfully treat someone, we typically find that it correlates with an increasing flow of information. This is indicated by the improving SDNN, as well as by an improving SUD (Subjective Unit of Distress). There has been evidence for years that psychological problems and stress have an adverse effect on health; our work, especially with HRV, supports this idea.

We have evidence that our treatments provide a hierarchy of success in eliminating psychological problems and stress, and in improving HRV. My algorithms, which are a kind of mass production treatments, were discovered by my causal diagnostic procedures. They have a good success rate, but lower than that available with our two higher levels of treatment, both of which use causal diagnosis to obtain a specific treatment for an individual. The causal diagnosis, called Voice Technology (VT), is superior to our ordinary causal diagnostic procedure. I have thousands of examples in my tape files demonstrating these robust facts, and we now have the support of HRV data, as well. The VT is more accurate than any other diagnostic procedure, but when people are helped with an algorithm, they may not need the causal diagnosis unless the problem keeps returning. Then, we need to discover the reasons for this recurrence through causal diagnosis and prevent it from occurring.

TFT appears to have a far higher success rate than any other therapy.⁸ Since we can typically eliminate various psychological problems in minutes, we are in a unique position to be able to observe the return of a problem. If a problem cannot be eliminated in the first place, then there can be no *return*. I have discovered the major source of the return of a previously cured problem—it is IETs, or toxins, as briefly discussed above.

If we view successful treatment as the restoration of order in the body, which paradoxically results in apparent disorder in the variability of the heart, we have a basis for understanding that healing is governed by specific information input to the individual in the correct manner.

What Can One Do?

The simplest and best thing I can recommend comes from my experience when I was invited to the Las Vegas, Nevada Medical Clinic of Dr. Fuller Royal, the director of the clinic. Dr. Royal introduced me to Heart Rate Variability, which he was using to test the effectiveness of various treatments.

He found that my simple algorithm for phobias was the most powerful treatment he had ever observed, according to his HRV tests. While there, I witnessed Dr. Royal expertly administer my simple phobia algorithm to twelve patients with varying medical symptoms—not phobias.

Much to my astonishment, I saw that whatever symptoms these patients presented were reduced or eliminated by my simple algorithm. I also observed the HRV scores being quite dramatically improved as a result of my phobia algorithm. There was 100% success rate on this day, but if more patients had been treated, I am sure the success rate would have reduced.

To find that my simple phobia algorithm had such a dramatic effect on improving HRV on medical patients (as well as reducing various kinds of medical symptoms) was a dramatic and unexpected surprise to me. Later, when I read the research by Kawachi et al. (1995) where a high association between phobic anxiety and poor HRV was found, it began to make some sense to me. The more recent research with my various algorithms, carried out by Sakai et al. (2001) at a major hospital, is also relevant. “Seven TFT-trained therapists at Kaiser Behavioral Medicine Services and Behavioral Health Services used (the algorithms) . . . in 1594 applications with 714 patients” (p. 1216). Various medical as well as psychological complaints were helped in this study, including acute stress, anxiety, depression, bereavement, addictions, obsessive-compulsive disorder, panic, trichotillomania, physical pain, nausea, tremors, and neurodermatitis (p. 1218). Some HRV results are also included in this report.

⁸ It is interesting that, as far as I can determine, TFT is the only psychotherapy that discusses the possible cause of the return of a problem. Also, TFT is the first therapy to use the scrupulously avoided word “cure.” The accurate conjoining of these two facts are themselves illustrative of my point.

As a result of these findings, I recommend that the reader try my simple algorithm for phobias for whatever symptoms are being experienced. If you are having medical symptoms, it is crucial to also consult your physician. Instructions as to how to carry out my treatments for phobias and traumas can be downloaded from our web site, www.tftrx.com. This is taken from our book, *STOP THE NIGHTMARES OF TRAUMA* (Callahan & Callahan, 2000). If you should have *TAPPING THE HEALER WITHIN* (Callahan & Trubo, 2001), this book includes the treatment for trauma, as well as numerous other algorithms I discovered.

% Increase in HRV with Different Therapies

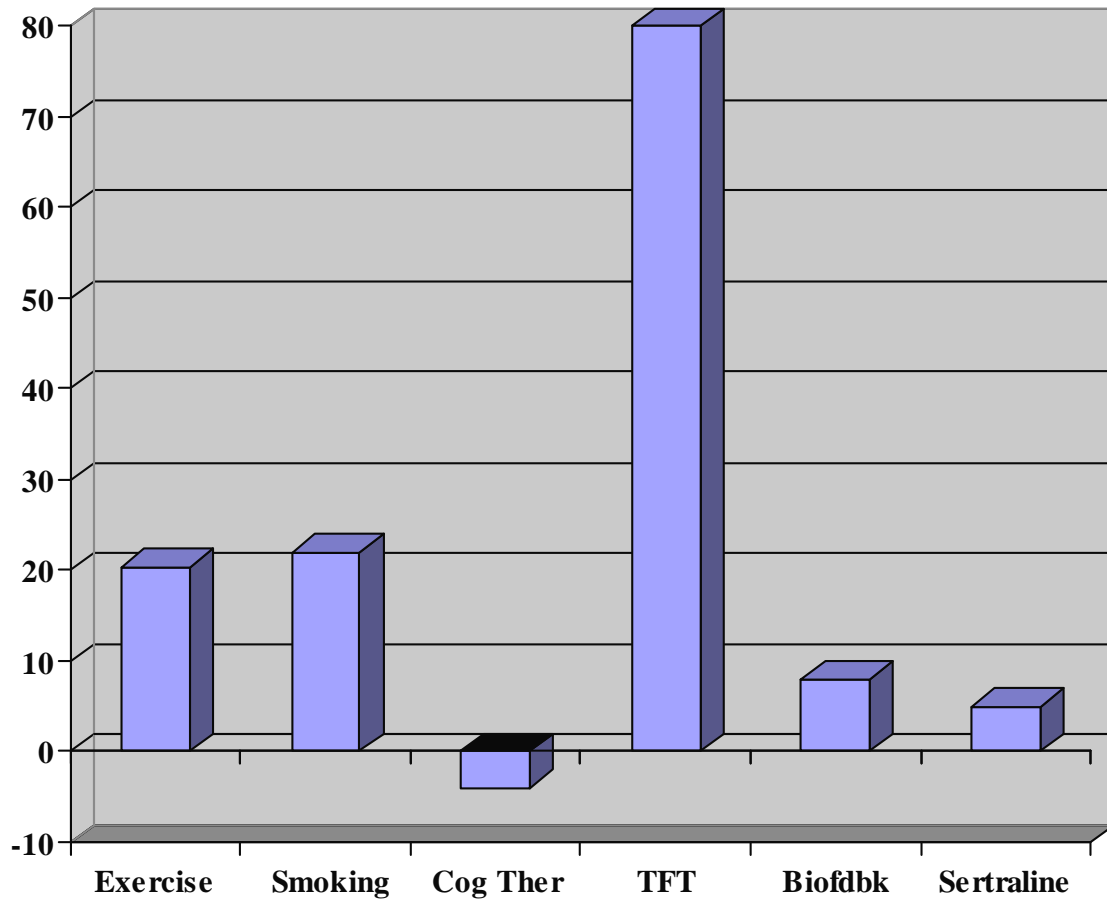


Figure 1. Impact of Exercise, Smoking, Cognitive Therapy, TFT, Biofeedback, and Sertraline on HRV

Time Scale: Exercise and smoking cessation are after one year. Biofeedback is after two months of training. Cognitive Behavioral Therapy for depression was carried out for up to 16 sessions. Sertraline administered for 22 weeks for depression. Common side effects with Sertraline include nausea, diarrhea, tremor, insomnia, somnolence, and dry mouth. TFT for depression is done in one session within minutes (Callahan, 2001d), typically with immediate elimination of depression and immediate increase in HRV averaging 80%. No side effects with TFT.

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The Treatment of Irritable Bowel Syndrome (IBS) with TFT

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Introduction

A brief survey of the effectiveness of TFT in the treatment of Irritable Bowel Syndrome (IBS) was carried out over a three-month period involving 11 subjects. The results obtained are very significant in that IBS is widely regarded as an incurable condition, the few treatments available directed at reducing the severity of its many presenting symptoms.

Irritable Bowel Syndrome (IBS) is a disorder with multiple forms and with varying severity and symptomology, with an estimated one in four of the population of the developed world affected at some time in their lives. It is defined as “a functional bowel disorder in which abdominal pain is associated with defecation or a change in bowel habit, and with features of disordered defecation and intestinal distension.” Other symptoms include nausea, vomiting, fatigue, backache, headache, early satiety, and, in women, gynecological or urological symptoms. Disturbed emotions, notably anxiety states, are also a feature.

The complex presentation means that diagnosis of IBS can usually only be reached by exclusion of other physical abnormalities and organic disease. The varied symptomology often leads to referral to multiple specialisms as part of this process. Laparoscopy is regularly performed, with inappropriate surgery such as hysterectomy, cholecystectomy, and appendectomy occasionally the consequence of misdiagnosis.

Regarded by many physicians as “non-serious,” IBS is nevertheless an extremely common disorder, accounting for up to 50% of all cases seen by gastroenterologists. It is accepted by conventional medical practitioners that any treatment they can offer is of little proven benefit, yet a large number of sufferers endure many months or years of invasive investigations and treatment procedures in the hope that some relief from the condition may be obtained.

Subject Group and Procedures

The subject group consisted of 9 women and 2 men. The disparity between the sexes is largely cultural, as women are much more likely to seek treatment than men. All had initially sought treatment from their respective general practitioners and had undergone many investigative procedures to exclude other disease. All had also been prescribed anti-spasmodics to control their symptoms but described the impact of the medication as insignificant. Considerable anxiety / depression about their condition was also present.

After diagnosis for the various forms of PR, initial treatment was by TFT algorithms as appropriate for whatever the client felt distressing. These included Trauma, General Stress, Obsession, Shame, Embarrassment, Guilt, etc. This was followed by diagnostic treatment if no significant reduction in SUD was reported. Once the client reported a SUD of 2 or 1, the treatment was regarded as complete. The TFT visualisation procedure was also used to help the clients picture their life free of their symptoms.

During the treatments, I made two main observations:

- All subjects tested strong for massive PR, six requiring collarbone breathing procedure.
- All tested strong for at least three toxins, no common pattern being apparent in the type (wheat, corn, milk, chocolate, cola, etc.); however, craving for the individually identified toxins was confirmed by the client after testing.

The subjects were provided with self-help instructions for the algorithms and / or diagnosed sequences, and instructed to carry out PR treatments 20 times a day and collarbone breathing procedure 3 times a day (if required). Follow-up was carried out at one week and four weeks later.

Results

Four of the group had their condition completely resolved, five reported partial resolution with considerable reduction in the number and severity of their emotional and gastrointestinal symptoms, and two reported no change.

- The four who reported complete resolution confirmed that they had followed my instructions exactly, including doing PR corrections, collarbone breathing, and using the tracking procedure for toxins not identified during treatments.
- Of the five who reported partial resolution, three admitted that they had not carried out the PR corrections as often as advised, but had made attempts to track toxins accurately, yet not fully. The remaining two admitted to a secondary gain from their problem, so had stopped treatment when they realized that their symptoms were resolving.
- The two who reported no benefit, the males of the group, had not carried out any PR correction or tracking of toxins. When asked why, the apex problem was apparent, with both saying that they couldn't see how the treatment could work, and that they felt awkward in carrying out PR procedures and treatments. Interestingly, the two males were the only smokers in the group, and they commented that smoking "reduced the severity of their symptoms, anyway."

A Possible Mechanism

Although emotional factors may be triggers for onset of IBS, the associated anxiety states are thought to be secondary to the illness. Those with chronic IBS show elevated scores for anxiety, depression, phobias, hostility, etc., whereas those in the acute phase do not. Hence, the psychological problems observed in most IBS sufferers are probably a consequence of having to cope with such a traumatizing condition. IBS, however, is definitely recognized as disorder of intestinal motility, with other symptoms arising directly or indirectly from this primary cause. As intestinal motility is under the control of the autonomic nervous system, the disordered coordination of sympathetic and parasympathetic components would appear to be a contributory, if not the main, factor.

I believe that the success of TFT in the treatment of IBS lies not in the resolution of psychological factors but in its ability to correct the failure in autonomic coordination. The rebalancing of the autonomic nervous system following successful TFT treatment has been reported previously (HRV report and video: Callahan Techniques Ltd., California). With restoration of balanced function, intestinal motility returns to normal. As is regularly observed in TFT treatments, resolution of other presenting symptoms soon follows.