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## *How SK Can Treat the Cognitive, Psychodynamic and Neuro-Psychiatric Problems of Post Traumatic Stress Disorder*

### **Cognitive and Psychodynamic Problems Seen in PTSD**

- 1) A sense of helplessness resulting from the inability to control the physical and emotional state being imposed on the victim at the time of the abuse or torture.
- 2) Feeling very frightened and unsafe, fear that one's life is in danger, that the world is chaotic with no sense of structure and stability.
- 3) Feeling of being betrayed or rejected by loved ones (especially if perpetrators are one's own parents). Expecting to be rejected, betrayed or exploited by others.
- 4) Feeling neglected and abandoned because one's parents are not protecting them.
- 5 a) Feeling isolated, out of contact, and all alone in the world.
- 5 b) Fear that contact will lead to hurt.
- 6) Feeling worthless and unlovable.
- 7) Feeling rage at perpetrators ; this is often deflected to rage at self, community, one's predicament in life or rage triggered by minor set-backs and chronic hyperarousal.
- 8) Fear of loss of control of one's anger.
- 9) Feeling stifled, afraid, and not allowed to express their feelings, or cry out their pain (child sex abuse victims, for example, are frequently silenced by their perpetrators threats: "if you tell anyone I'll hurt you or I'll hurt you or your family")
- 10) Alienation from God and from a sense of morality and justice.

### **Introduction**

This paper is about how SK can treat the symptoms of PTSD

### **Part I:**

Experimental Design for Measuring the Impact of SK in Ameliorating Symptoms of PTSD in Three Different Exposed Populations in NYC: Police Officers, Wall Street Employees and the General Public.

Because of the advent of the World Trade Center calamity New York City was transformed into a population exposed to a severe, sudden, violent trauma. Experimental designs are being formulated to study the impact of SK on symptoms of psychic distress in 3 large, different traumatized groups, police officers, wall street employees, and the general public, each with their own distinct culture, trauma experience, and availability for follow up. In all 3 groups, user-friendly self-administered instruments are required to accomplish testing in a rapid cost-effective manner.

The Davidson Trauma Scale could be used with all 3 groups. It is a 17 item self report instrument, which measures both the frequency and severity of each PTSD symptom and is sensitive to treatment effect<sup>1</sup>. Trauma results in higher rates of physical illness, irritability, depression, substance abuse, suicidal and homicidal thoughts<sup>2</sup>. Police officers could be forced to surrender their guns, ostracized, and not allowed to go out on patrol if they present with the latter 3 symptoms. Therefore, trauma scales with items addressing these 3 symptoms would be less likely to accurately measure change before and after SK training, since substance abuse, suicidal and homicidal thoughts would be denied at both times. The Davidson Trauma Scale administered immediately before the SK course and after, and again 6 months later, would be likely to provide accurate and useful data for this group. It is a testing instrument for assessing PTSD which is sensitive to treatment effect. Also, it does not include any items which would result in police officers having to immediately surrender their guns so that it is more likely to accurately measure change in trauma symptoms before and after SK training.

Wall Street brokers who have survived the World Trade Center Disaster face trauma from having experienced the tragic deaths of their colleagues, destruction of their workplace, loss of jobs, witnessing large scale death and destruction, and continued fear of new attacks. A study of Wall Street brokers, prior to the WTC disaster indicated a higher prevalence of depression, substance abuse, and anxiety symptoms than in the general public<sup>3</sup>. The Davidson Trauma Scale is a valuable testing instrument for this population but it would be best if supplemented with another instrument such as the SCL-90 for measuring comorbid symptoms. The SCL-90 is a 90 item self-report inventory, which assesses for a wide range of psychiatric symptoms including: depression, anxiety, obsessive-compulsive disorder, somatization, hostility, paranoid ideation, and psychotic symptoms.

Testing would be done before and after the course and again 6 months later, as with the police. The rationale for this testing interval is that most subjects in both groups would be available 6 months after the course and could easily be tracked through the work place. In addition a study of 182 adult survivors of the Oklahoma City Federal Building bombing in 1995 showed

that 6 months later nearly half were still suffering one or more psychiatric diagnoses<sup>5</sup>. PTSD and major depression were most prominent.

The DTS and SCL-90 would be useful instruments for studying the effect of SK on the general public along with items asking why they chose to participate in SK training and whether they feel their goals were met by the course. It would be important to include a question like: "Have you experienced any change in your perspective? (If so, what change?) Further questions for assessing a change in perspective could include: How has your outlook changed towards: other people? life in general? politics? religion? violence? responsibility to others? etc.

The responses could then be used not only to study the subjective psychological changes within each participant but also how it could influence participant's perspectives on other people and events outside of themselves. For any given person (i.e. someone with PTSD or depression with symptoms of anger, irritability, intolerance, distrust) a change in perspective on the world (i.e. I see the world as a safer place, I feel more tolerant of others' problems) may be more important in improving their overall functioning than a change in their own personal symptoms. Finally, studying change in perspective (view of life and the world) or in participants, is a vital step in a scientific study of the process of how in an one individual at a time, SK training may ultimately result in world peace.

## Part II:

How SK Can Treat the Cognitive, Psychodynamic, and Neuro-Psychiatric Problems of PTSD ?

Exposure therapy, a therapy in which patients repeatedly experience painful memories of their traumatic events, together with cognitive-behavioral therapy, is described as the most effective form of psychotherapy for PTSD. The SK course provides both types of treatment. The rapid breathing and resulting increased stimulation can provoke a reexperiencing of trauma symptoms, like exposure therapy does in PTSD patients. This can occur both through adrenergic stimulation and by evoking memories of prior terrifying situations in which vital signs (respiration, pulse, etc.) were elevated i.e. torture, rape, life threatening events, etc. The repeated sequences of hyperventilation performed during SK provide an opportunity for repeated exposure to the emotional and physical recollections of the trauma in a safe and supportive setting. This process enables the traumatic response to be gradually extinguished, and at the same time gives the patient a sense of control and mastery and an opportunity to learn self-soothing.

The SK literature states, " rather than allowing the emotions to alter the breath (and cause physiological changes which may prove unhealthy) one can skillfully use the breath to transform one's emotional state." A fascinating article by Drs. Ledoux and Gorman in the American Journal of Psychiatry<sup>6</sup> shows the neurobiologic correction that may occur in the brain when trauma patients are empowered to make this sort of shift from a passive helpless state to taking effective action to take control and do something to help themselves (such as doing breathing exercises or moving). Rats conditioned to

associate a certain tone with an electric shock from which they could not escape, develop PTSD type responses including autonomic hyperactivity, HPA axis responses, and "freezing" which is the animal equivalent of becoming withdrawn, avoidant, and despondent. PTSD symptoms occur after impulses go to the central nucleus of the amygdala which then flow to the hypothalamus and to the emotional response circuits for fear. When these same rats, after being fully conditioned to unavoidable shocks, are then given the option of moving to another place to avoid the shocks, the neuronal pathway changes. After the rat is able to engage in active coping, instead of passive helplessness, the impulse goes to the basal nucleus, instead of the central nucleus of the amygdala.

The pathway (through the central nucleus) resulting in freezing, helplessness, and despair is then bypassed in favor of a pathway (through the basal nucleus) to the motor circuits in the ventral striatum which goes to muscles, enabling effective movement to avoid pain. As the authors of this article write: "By engaging these alternative pathways, passive fear responding is replaced with an active coping strategy." SK may function as a means of taking physical action to successfully cope with stress by using the movements of breathing to recircuit fear induced impulses. These impulses could then bypass the path to the emotional response circuits for fear, and instead take a pathway through the basal nucleus of the amygdala which connects to the motor circuits enabling muscles to respond to the brain's commands to breathe and move. The pathway illustrated here may explain one mechanism for how SK helps relieve the stressful emotional states that characterize PTSD.

SK provides a "corrective emotional experience" for healing the cognitive distortions and deep emotional wounds resulting from trauma. These include feeling worthless, helpless, unwanted and unwelcome, and expecting to be neglected, abused, rejected, or exploited by others. Ten major cognitive and psychodynamic problems of PTSD<sup>7</sup> are listed in your handout. At the start of the course the personal interview and chat that the teacher has with each student communicates "I care about you. You are important, you are welcome, your feelings and needs will be responded to, you are safe here." Thus cognitive rehabilitation for problems #2, 3, 4, 5 and 6 are already put into effect in the first few minutes of contact. Problem #1 is treated by reassuring the participants, "you can leave at any time." As the course progresses each problem is repeatedly responded to in different ways by different exercises. "I belong to you" treats #3, 4, 5 and 6. Looking into each other's eyes, holding hands imagining each other as God responds to #3, 4, 5, 6 and 10. This exercise also teaches tolerance of differences and makes individuals aware of their innate ability to feel a connection to others. This is especially important for treating the PTSD symptoms of numbing, dissociation, and alienation, in which trauma patients tend to cut off their connection to others and deny their need to feel a sense of belonging and connecting. Chanting allows for the movement of the muscles of breathing and vocalization, and enables participants to relieve stress, vocalize feelings, and feel a sense of spiritual connection in a shared communal exercise. This helps problems #1, 5, 7, 8, 9 and 10. Giving permission to cathartize all feelings that surface

during the breathing, responds to problem #7, 8 and 9. Problem #1, feeling helpless also gets treated by the participant's realization that they have successfully mastered the techniques of breathing and then successfully extinguished the emotional hyperarousal type responses (from reexperiencing) after completing a number of KRIYAS. (blank slide)

Judith Herman writes in *Trauma and Recovery*, "Traumatized people feel utterly abandoned, utterly alone, cast out of the human and divine systems of care and protection that sustain life."<sup>7</sup> SK treats the cognitive and psychodynamic problems of feeling alone, abandoned, and cast out by society by enabling participants to rebuild a sense of a caring, tolerant, interdependent community in which they are accepted and valued. This is conveyed in group exercises such as looking into each other's eyes, holding hands, chanting together, and telling each other, "I belong to you". Group psychoeducation of AOL's most basic values of tolerance, acceptance, and social responsibility including teaching that opposites are complimentary, and the high value placed on service to others, and group sharing in all the tasks of service, all strengthen the sense of community. This responds to problem 1 through 7 and #10. Problem #10, alienation from God and from a sense of morality and justice is also responded to by the experience of being accepted as an integral member of a community joined in shared spiritual growth. It is further bolstered by the kindly behavior of the role models (like teachers or more senior members) who selflessly provide service and nurturing to newcomers, while enjoying a spiritually exalted state.

Every doctor knows the proverb, "an Ounce of Prevention is Better than a Pound of Cure". The last topic is prevention. So how can SK help to prevent PTSD?

PTSD is much more likely to develop following trauma perpetrated by people in the form of rape or deliberate violence, rather than by motor vehicle accidents or natural disasters. The WTC disaster resulted from violence perpetrated by individuals whose perspective on others reflected intolerance, hatred, inability to accept differences in culture or religions, and a misguided view of GOD as the rewarder of murder and destruction. There is no evidence that this group suffers from serious affective or anxiety disorders. It is clear however that there is a serious problem in their perspective on the world outside of themselves. If the Taliban attended SK training and could be exposed to the SK psychoeducation reinforcing the value of accepting differences, that opposites are complimentary, what you resist persists, that GOD could appear in the form of any person, and that we are all responsible for each other, the violence resulting in the destruction of the WTC and thousands of innocent lives would never have occurred.

For this reason and for the prevention of wars, violence, and trauma in the future it is important to stress study of the effect of SK on changing perspective and interpersonal behavior as well as changing intrapsychic states. (blank slide)

Another way in which SK training facilitates this change in perspective is by awareness of and management of emotions through regular practice of the Kriya. Studies of yoga breathing

and chanting have shown improved memory and attention and increased mental alertness in the context of physiological relaxation.

People are able to tolerate only so much physical and emotional pain before their minds and bodies shut off. This is what happens in PTSD and causes the symptoms of dissociation and numbing. Trauma patients are unable to feel their own feelings or respond to the feelings of others.

One may ask: how can people be so cruel to each other? How can a parent abuse their own child? Most parents who engage in child abuse were abused themselves as children and are repeating a cycle of violence. They are out of touch with their own needs and hurt feelings, and unable to empathically respond to the emotional needs of their child.

As discussed by Dr. Brown in his paper, studies show that hyperventilation and vagal nerve stimulation, which happens during Kriya practice, can allow for suppressed emotion, cognitions, and trauma memories to be evoked while providing a state of calmness and relaxation. This could restore a sense of emotional connectedness to people who have been cut off from feeling their own emotions, or the emotions of others. The result would be empathy and a drive to relieve the pain that other people feel. SK practice allows this response to the cries and pains of others to be accomplished in the presence of a calm and relaxed mind, much like a kindly and objective doctor caring for the needs of a patient in pain.

### Part III:

Of this paper is on strategies that can be used with trauma patients to reduce excessive anxiety and to produce a better rate of successful completion of the course and adherence to long term practice.

- 1) My experience as the Medical Director of a Trauma Clinic in N.Y. has shown that frequently male and female rape victims do better and experience less fear and anxiety with female therapists. It may therefore be helpful to provide this group with female teachers.
- 2) Avoid childhood imagery during the first basic course for patients with a history of repeated childhood torture or severe abuse if the intent is to provide a sense of relaxation or happiness.
- 3) Very anxious patients should be told a little but more about the schedule and program (e.g. given a printed daily schedule with a brief general outline).
- 4) Trauma patients who have been abused or exploited by authority figures may resent anything that seems dogmatic. For these groups teachers need to present AOL philosophy as what they have found to be useful steppingstones toward better health and greater fulfillment's in life, rather than as dogmatic rules.
- 5) Trauma patients would benefit from a greater focus on integration into the community and building self-esteem based on community service. Each person should be told that their presence is important and a valuable contribution to the progress of the group. After each group all trauma patients should be asked to help with constructive community oriented tasks. (i.e. Teachers can

ask the class to help folding blankets and clearing up the room). All positive helping behavior should be positively reinforced.

- 6a) Creating a safe environment. Teachers need to be aware of PTSD patients need to feel that they are in a safe environment and that they are exquisitely sensitive to any sense of instability or intrusion.
- (b) Changes in the environment, particularly those that result in disturbing the comfort levels of participants need to be explained in detail to trauma patients or they will feel very anxious and unsafe and experience the event as retraumatizing.
- (c) Too much intimacy too fast can be very frightening to trauma patients, many of whom are starved for human warmth but are too frightened to connect. One of my patients a 33 year old woman named Jean who had been a victim of repeated torture throughout her childhood immersed herself rapidly into the course on day 1 socializing, connecting and opening up freely. She never came back for day 2. She became too frightened that the people she was beginning to feel close to would betray her and hurt her. Closeness initially can provoke childhood yearnings for intimacy and warmth but this is soon followed by the painful associations of abuse and neglect connected to them, for victims of childhood abuse like Jean. Patients like Jean would have a greater chance of completing the course if the first couple of days had less individual socializing and less calling on individuals in front of the class. She said she would have felt safer if she could have been less high profile and more anonymous.
- 7) Patients with PTSD would benefit from longer term follow up groups to provide extra continuity and support for adherence to long term practice.

How can doctors and therapists who refer PTSD patients for SK help them successfully complete the course and adhere to long term practice? (slide)

### **Before the course:**

Doctors and therapists should tell patients that re-experiencing of painful memories may occur during SK and should not worry them, because it is part of the healing process. Kriya practice is therapeutically useful in treating PTSD because it allows suppressed emotions and trauma memories to emerge and to be processed and breathed out. Thus patients should be made aware that their darkest moments may occur just before recovery begins.

### **During the course:**

Patients should be contacted after the first and second long KRIYA to ensure that they are not experiencing too much stress.

### **After the course:**

Patients should be told that healing trauma symptoms takes time and happens most quickly with daily practice and weekly SATSUNG.

Service to others needs to be strongly encouraged both by teachers and therapists of trauma patients. In his book, "Man's Search for Meaning", Victor Frankl, a famous psychoanalyst

and survivor of the tortures of Auschwitz Concentration Camp, focuses on a crucial aspect of recovery from trauma. It is the need to do something to make one's life and one's suffering meaningful.

Performing service and becoming part of a movement to bring hope and help to others who are in need is a powerful means towards feeling that one's own suffering has not been in vain. Trauma patients see the transformation in affect and perspective that occur within themselves and in their classmates as a result of SK practice. Experiencing the warmth, openness and tolerance that evolves in each individual (within the group) with SK practice gives one a sense of purpose and personal growth. There is a feeling of victory over one's past and moving forward to being a kinder and a better person in the future.

This means more than recovery. SK practice has the potential to help the patient not only recover (and return to the psychic state they were in before the trauma), but to actually evolve to a new state of greater happiness and inner calm. (slide)

The trauma is not forgotten, but the memory of it no longer provokes fear and pain. In time, the trauma is experienced not as a pointless, devastating event, but as the prelude to a journey of emotional and spiritual transformation and rebirth.

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