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Approaches to the Treatment of PTSD

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Introduction

Terrifying experiences that rupture people's sense of predictability and invulnerability can profoundly alter the ways that they subsequently deal with their emotions and with their environment. The syndrome of Post Traumatic Stress Disorder (PTSD) can follow such widely different stressors as war trauma, physical and sexual assaults, accidents, and other natural and man-made disasters. Mirroring the confusion and disbelief of people whose basic assumptions are shattered by traumatic experiences, the psychiatric profession periodically has been fascinated by trauma, followed by sudden disbelief in the importance of trauma in the genesis of psychopathology. Over the past decade our profession has experienced the third intense wave of efforts to grasp the reality of trauma on body and soul, after the first at the Salpetriere during the closing decades of the 19th century, and the second, spearheaded by Abram Kardiner (1941), in the 1940s. The findings about the consequences of trauma and what constitutes effective treatment have been extraordinarily consistent over these 120 years.

Several studies in recent years have shown that Post Traumatic Stress Disorder (PTSD) is among the most common of psychiatric disorders. The National Vietnam Veterans Readjustment Study (Kulka et al,1990) found that approximately twenty years after the end of the Vietnam war 15.2% of Vietnam theater veterans continued to suffer from PTSD. However, PTSD is not confined to combat soldiers, but is quite common in the general population, particularly among psychiatric patients. Various studies have demonstrated a life time prevalence of between 1.3% (Heizer et al,1987) and 9% (Breslau & Davis, 1991) in the general population and at least 15% in psychiatric inpatients (Saxe et al.,1993). Although PTSD is associated with high levels of chronicity, co-morbidity and functional impairment, the general level of functioning varies a great deal between affected individuals.

Lack of predictability and controllability are the central issues for the development and maintenance of PTSD. The combination of intrusive and numbing symptoms has been consistently noted over the past century (e.g. Janet, 1904; Kardiner,1941), and forms the basis of our understanding of the nature of PTSD. What distinguishes people who develop posttraumatic stress disorder (PTSD) from people who are merely temporarily overwhelmed is that people who develop PTSD become "stuck" on the trauma, keep re-living it in thoughts, feelings, or images. Evidence during the past decade supports the notion it is the intrusive

reliving, rather than the traumatic event itself that is responsible for the complex biobehavioral change that we call PTSD (McFarlane,1988). Once they become dominated by intrusions of the trauma, traumatized individuals begin organizing their lives around avoiding having them (van der Kolk & Ducey, 1984). Avoidance may take many different forms: keeping away from reminders, ingesting drugs or alcohol that numb awareness of distressing emotional states, or utilizing dissociating to keep unpleasant experiences from conscious awareness. The helplessness, conditioned hyperarousal, and other trauma-related changes may permanently change how a person deals with stress, alter his/her self-concept and interfere with the view of the world as a basically safe and predictable place.

A relative sense of safety and predictability are preconditions for effective planning and personal action. Freud (1911/1959) described how, in order to function properly, people need to be able to define their needs, anticipate how to meet them and plan for appropriate action. In order to do this, people need to be able to mentally entertain a range of options, without resorting to action. He called this capacity: "thought as experimental action" . Traumatized people seem to lose this essential capacity and have difficulty turning inwards to utilize their emotions as guides for action (van der Kolk & Ducey,1984). Instead, their internal world becomes a danger zone and they seem to spend their energies on NOT thinking and planning.

The therapeutic relationship with these patients tends to be extraordinarily complex. It confronts all participants with intense emotional experiences, forcing them to explore the darkest corners of the mind, and to face the entire spectrum of human glory and degradation. The devastating effects of trauma on affect modulation, attention, perception, and the giving and taking of pleasure bring us face to face with the full destructive impact of traumatic stress to dominate, use and control others.

The role of memory and dissociation

Pierre Janet (1889) first described how the central issue in trauma is dissociation: memories of what has happened cannot be integrated into one's general experiential schemes and are split off from the rest of personal experience. Physiological hyperarousal seems to be a central precondition for dissociation to occur (Rauch et al, 1995). Lack of integration on a schematic level causes the experience to be stored as affect states or as somatosensory elements of the trauma (van der Kolk & Fisler, in press 1995), which return into consciousness when reminders activate customary response patterns: physical sensations (such as panic attacks), visual images (such as flashbacks and nightmares), obsessive ruminations, or behavioral reenactments of elements of the trauma.

Most studies of people who develop PTSD find significant dissociative symptomatology (Bremner, 1993; Marmar, 1994) The most extreme form of post-traumatic dissociation is seen in patients who suffer from Dissociative Identity Disorder. Janet (1889) first described how traumatized people become "attached" (Freud would later use the term "fixated") to the trauma: "unable to integrate traumatic memories, they seem to have lost their capacity to assimilate new experiences as well. It is .. as if their personality definitely stopped at a certain point and cannot enlarge any more by the addition or assimilation of new elements (p.532)." This suggests that traumatized people are prone to revert to earlier modes of cognitive processing of information when faced with new stresses.

Since the core problem in PTSD consists of a failure to integrate an upsetting experience into autobiographical memory, the goal of treatment is find a way in which people can acknowledge the reality of what has happened without having to re-experience the trauma all over again. For this to occur merely uncovering memories is not enough: they need to be modified and transformed, i.e. placed in their proper context and reconstructed into neutral or meaningful narratives. Thus, in therapy, memory paradoxically becomes an act of creation, rather than the static recording of events which is characteristic of trauma-based memories.

PTSD as a biologically based disorder

Abram Kardiner (1941) introduced the notion that "traumatic neuroses" are "physioneuroses" and that patients with PTSD remain on constant alert for environmental threat.: "(t)he subject acts as if the original traumatic situation were still in existence and engages in protective devices which failed on the original occasion... ". (p. 82). In PTSD, the physiological state of chronic overarousal is accompanied by difficulties

in attention and concentration, as well as distortions in information processing, including narrowing of attention onto sources of potential challenge or threat. It appears that for traumatized people all emotions become angerous. While the function of their hyperarousal is to prepare them for some form of action in the face of threat, it does not build up specific skills and feelings of mastery and control, because the anticipated action is not specific.

Over the past few years it has become increasingly evident that the intensity of the initial somatic response to a potentially traumatic experience is the most significant predictor of long term outcome. If the stress is sufficiently overwhelming, the resulting trauma sets up a conditional emotional response in which the body continues to go into a fight, flight, or freeze responses at the least provocation: traumatized people keep experiencing life as a continuation of the trauma, and remain in a state of constant alert for its return. Many traumatized people who have consciously put the trauma behind them continue to experience anxiety and increased physical arousal when exposed to situations that remind them of the trauma, or even to unexpected events such as loud noises, and go into fight/flight reactions, without necessarily being aware of the origin of these extreme behaviors.

Though the biological underpinnings of response to trauma are extremely complex, forty years of research on humans and other mammals have demonstrated that trauma (particularly trauma early in the life cycle) has long term effects on the neurochemical response to stress, including the magnitude of the catecholamine response, the duration and extent of the cortisol response, as well as a number of other biological systems, such as the serotonin and endogenous opioid system. (for an extensive review on the psychobiology of trauma, see van der Kolk, 1994).

The Symptomatology of PTSD

While Post traumatic stress has been recognized in the poetry of Homer, Shakespeare and Goethe, psychiatry has consistently recognized its existence only since 1980 when PTSD was introduced into the DSM III. **Table 1** shows the diagnostic criteria for simple PTSD. Since that time, there has been a growing literature documenting the posttraumatic symptoms of hyperarousal, hyper-reactivity to stimuli reminiscent of the trauma, avoidance and emotional numbing in a large variety of traumatized populations, including war veterans, children who have experienced physical or sexual assaults, women who have been battered and raped, people exposed to natural disasters, refugees and political prisoners. Regardless of the origin of the terror, the Central Nervous System (CNS) reacts consistently to overwhelming, threatening, and uncontrollable experiences with conditioned emotional responses. For example, rape victims may respond to conditioned stimuli, such as the approach by an unknown man, as if they were about to be raped again, and experience panic.

Intrusive Re-experiencing

Remembrance and intrusion of the trauma is expressed on many different levels, ranging from flashbacks, affective states, somatic sensations, nightmares, interpersonal re-enactments, including transference repetitions, character styles, and pervasive life themes. Laub and Auerhahn (1993) organized the different forms of knowing along a continuum according to the distance from the traumatic experience, each form also progressively represents a consciously deeper and more integrated 'level of knowing.' The different forms of remembering trauma range from 1)not knowing; 2) fugue states (in which events are relived in an altered state of consciousness); 3) retention of the experience as compartmentalized, undigested fragments of perceptions that break into consciousness (with no conscious meaning or relation to oneself); 4) transference phenomena (wherein the traumatic legacy is lived out as one's inevitable fate); 5) its partial, hesitant expression as an overpowering narrative; 6) the experience of compelling, identity-defining and pervasive life themes (both conscious and unconscious); 7) its organization as a witnessed narrative. These various forms of knowing are not mutually exclusive.

Autonomic hyperarousal. While people with PTSD tend to deal with their environment by emotional constriction, their bodies continue to react to certain physical and emotional stimuli as if there were a continuing threat of annihilation. Conditioned autonomic arousal to traumarelated stimuli has consistently been shown to occur in a variety of traumatized populations. Autonomic arousal, which serves the essential

function of alerting the organism to potential danger seems to lose that function in traumatized people: the easy triggering of somatic stress reactions causes people with PTSD to be unable to rely on bodily sensations to warn them against impending threat. Instead, the persistent warning signals lose their functions of signals of impending danger, and cease to alert the organism to take appropriate action.

Numbing of responsiveness. Aware of their difficulties in controlling their emotions, traumatized people seem to spend their energies on avoiding of distressing internal sensations, instead of attending to the demands of the environment. In addition, they lose satisfaction in matters that previously gave them a sense of satisfaction and may feel "dead to the world". This emotional numbing may be expressed as depression, as anhedonia and lack of motivation, as psychosomatic reactions, or as dissociative states. In contrast with the intrusive PTSD symptoms, which occur in response to outside stimuli, numbing is part of these patients' baseline functioning. In children, numbing has been observed among elementary school children attacked by a sniper, among witnesses to parental assault or murder, and among victims of physical or sexual abuse. They become less involved in playful social interactions, and often are withdrawn and isolated. After being traumatized, many people stop feeling pleasure from exploration and involvement in activities, and they feel that they just "go through the motions" of everyday living. Emotional numbness also gets in the way of resolving the trauma in psychotherapy: they give up on recovery and it keeps them from being able to imagine a future for themselves.

Intense emotional reactions and sleep problems. The loss of neuromodulation that is at the core of PTSD leads to loss of affect regulation. Traumatized people go immediately from stimulus to response without being able to first figure out what makes them so upset. They tend to experience intense fear, anxiety, anger and panic in response to even minor stimuli. This makes them either overreact and intimidate others, or to shut down and freeze. Both adults and children with such hyperarousal will experience sleep problems, both because they are unable to still themselves sufficiently to go to sleep, and because they are fearful of having traumatic nightmares. Many traumatized people report dream-interruption insomnia: they wake themselves up as soon as they start having a dream, for fear that this dream will turn into a trauma-related nightmare. They also are liable to exhibit hypervigilance, exaggerated startle response and restlessness.

Learning difficulties. Physiological hyperarousal interferes with the capacity to concentrate and to learn from experience. Aside from amnesias about aspects of the trauma traumatized people often they have trouble remembering ordinary events, as well. Easily triggered into hyperarousal by trauma-related stimuli, and beset with difficulties paying attention, they may display symptoms of attention deficit disorder. After a traumatic experience, people often lose some maturational achievements and regress to earlier modes of coping with stress. In children, this may show up as an inability to take care of themselves in such areas as feeding and toilet training; in adults, it is expressed in excessive dependence and in a loss of capacity to make thoughtful, autonomous decisions.

Memory disturbances and dissociation. Increased autonomic arousal not only interferes with psychological comfort, anxiety itself also may trigger memories of previous traumatic experiences. The administration of lactate, which stimulates the physiological arousal system, elicits flashbacks and panic attacks in people with PTSD. Yohimbine injections (which stimulate NE release from the Locus Coeruleus) are able to induce flashbacks in Vietnam veterans with PTSD. Any arousing situation may trigger memories of long-ago traumatic experiences and precipitate reactions that are irrelevant to present demands (see van der Kolk & Fisler, 1994).

In addition to hypermnesia and intrusive memories, chronically traumatized people, particularly children may develop amnesic syndromes related to the traumatic event. During the stage of life that children, in a stage-appropriate way, try on different identities in their daily play activities, children who are exposed to prolonged and severe trauma may be capable of organizing whole personality fragments in order to cope with traumatic experiences. In the long term, this may give rise to the syndrome of Dissociative Identity Disorder, which may occur in about 4% of psychiatric inpatients in the USA (Saxe et al, 1993).

Patients who have learned to dissociate in response to trauma are likely to continue to utilize dissociative defenses when exposed to new stresses. They develop amnesia for some experiences, and tend to react with fight or flight responses to feeling threatened, neither of which may be consciously remembered

afterwards. People who suffer from dissociative disorders are a clinical challenge, including helping them acquire a sense of personal responsibility for both their actions and reactions, while forensically, they are a nightmare.

Aggression against self and others

Numerous studies have demonstrated that both adults and children who have been traumatized are likely to turn their aggression against others or themselves. Being abused as a child sharply increases the risk for later delinquency and violent criminal behavior. In one study of 87 psychiatric outpatients (van der Kolk et al., 1991) we found that self-mutilators invariably had severe childhood histories of abuse and/or neglect. There is good evidence that self-mutilative behavior is related to endogenous opioid changes in the CNS secondary to early traumatization. Problems with aggression against others have been particularly well documented in war veterans, traumatized children and in prisoners with histories of early trauma.

Psychosomatic reactions. Chronic anxiety and emotional numbing also get in the way of learning to identify and articulate internal states and wishes (Pennebaker, 1993). People traumatized as children frequently suffer from alexithymia - an inability to translate somatic sensations into basic feelings, such as anger, happiness or fear. This failure to translate somatic states into words and symbols causes them to experience emotions simply as physical problems. This naturally plays havoc with intimate and trusting interpersonal communications. These people have somatization disorders and relate to the world through their bodies. They experience distress in terms of physical organs, rather than as psychological states (Saxe et al., 1994).

Developmental level affects the behavioral & biological concomitants of trauma

Over the past thirty years people have slowly started to unravel the differential effects of trauma at various age levels. Modern psychiatry has begun to reconsider the ways in which failure of attachment and traumatic separation affect the developing organism. Bowlby (1969) has emphasized that attachment behavior is first of all a vital biological function, indispensable for both reproduction and survival. A rapidly expanding body of research has shown that disturbances of childhood attachment bonds can have long term neurobiological consequences. In addition to the disturbances in affect regulation, a large variety of studies, both in animals and in humans, have shown that childhood abuse, neglect, and separation have far-reaching biopsychosocial effects, including lasting biological changes which affect the capacity to modulate emotions, difficulty in learning new coping skills, alterations in immune competency, and impairment in capacity to engage in meaningful social affiliation. Aided by work on other animal species, a voluminous research literature on the effects of childhood physical and sexual abuse, and the Field Trials for the DSM IV, it has become understood that there are critical stages in the development of the CNS that make children particularly vulnerable to develop lasting disturbances secondary to abuse, neglect and separation. Aware of the fact that trauma at an early age has profound effects on affect regulation, levels of consciousness, tendency to organize experience on a somatic level, and to make characterological adaptations to chronic exposure to danger and fear, the DSM IV PTSD committee recommended an expanded definition of PTSD for inclusion in the DSM IV. The DSM IV classification system now recognizes the pervasive effects of trauma on the totality of a person's personality functioning in its new section on "associated features". **Table 2** shows the features of the associated features of PTSD in the DSM-IV.

Principles Of Treatment

The treatment of PTSD has three principal components: 1) processing and coming to terms with the horrifying, overwhelming experience, 2) controlling and mastering physiological and biological stress reactions, 3) re-establishing secure social connections and interpersonal efficacy.

The aim of these therapies is to help the traumatized individual to move from being dominated and haunted by the past to being present in the here and now, capable of responding to current exigencies with his or her fullest potential. Thus, the trauma needs to be placed in the larger perspective of a person's life, as a relatively isolated historical event, or series of events, that occurred at a particular time, and in a particular

place, and that can be expected to not recur if the traumatized individual takes charge of his or her life. Tragically, many traumatized people are involved in situations of ongoing trauma, in which they have little or no personal control over what happens to them. However, even under those circumstances, learning how to properly assess what is going on and planning one's responses, possibly in collaboration with other people, still can be expected to have significant psychological benefits.

Acute Trauma

Immediately after the trauma, the emphasis needs to be on self-regulation and on rebuilding. This means the re-establishment of a sense of security and predictability, and active engagement in adaptive action. Only a limited proportion of people who are traumatized develop PTSD. Most traumatized people seem to be able to successfully negotiate these initial adaptive phases without succumbing to the long term progression of their acute stress reaction into PTSD. For them, the trauma becomes merely a terrible experience that happened to them some time in their past. It is quite unclear whether talking about what has happened is always useful in preventing the development of PTSD. Some surprising findings have come out of careful Critical Incidence Stress Debriefing research: the few controlled studies that have examined the preventative effect of debriefing immediately following exposure to a traumatic event have suggested a poorer outcome following debriefing as compared with no intervention (McFarlane, 1994). Given the paucity of controlled studies, we are left with the clinical impression that the initial response to trauma consists of reconnecting with ordinary supportive networks, and of engaging activities that re-establish a sense of mastery. It is obvious that the role of mental health professionals in these initial recuperative efforts is quite limited.

The Need for Phase Oriented Treatment. Trauma needs to be treated differently at different phases of people's lives following the trauma, and at the different stages of the disorder PTSD. Treatments that may be effective at some stages of treatment might not be effective at others. For example, on a pharmacological level, initial management with drugs that decrease autonomic arousal will decrease nightmares and flashback, promote sleep, and are likely to prevent the kindling effects that are thought to underlie the long-term establishment of PTSD symptomatology. These same drugs, once the Disorder has been established have, at best, a palliative function, and serotonin re-uptake blockers, which seem to have little immediate benefit, can be immensely helpful in allowing people to attend to current tasks, and not to dwell on past fears, interpretations, and fixations. In this context, it is interesting to note that Foa et al. (1991) found that in the initial stages of treatment of rape victims Stress Inoculation Training turned out to be as effective a treatment of PTSD as was Prolonged Imaginal Exposure. However, on follow-up, imaginal flooding had superior results to stress inoculation. If there are differential effects of therapeutic modalities within a four month time frame, it is likely that there would be differential effects over longer time spans. It is likely that some forms of therapy might be effective at some stages, but have negative outcomes at other phases of the illness. Another instance is abreaction. It appears that abreaction as a treatment is most effective early in the course of the illness, and that its effectiveness decreases over time. For example, exposure therapy using "flooding" techniques have been found to worsen the symptoms of some patients, particularly in those in whom the focal trauma was decades earlier (Pitman et al., 1991). When intrusions of fragments of the trauma are the predominant symptom, exposure and desensitization may be what is most required. At a later stage of the progression of the disorder, when people have organized their entire lives around avoidance of triggers of the trauma, and approach other people as potential triggers of traumatic intrusions, helplessness, suspicion, anger, and interpersonal problems may dominate the symptom picture. When that is the case, primary attention needs to be paid to stabilization in the social realm.

Psychotherapeutic Interventions

The key element of the psychotherapy of people with PTSD -- as perhaps for all psychotherapy -- is the integration of the alien, the unacceptable, the terrifying, the incomprehensible. Life events initially experienced as alien, as if imposed from outside upon passive victims, must come to be "personalized" affectively as integrated aspects of one's history and life experiences (van der Kolk & Ducey, 1989). The massive defenses, initially established as emergency protective measures, must gradually relax their grip upon the psyche, so that dissociated aspects of experience do not continue to intrude into one's life

experience and thereby threaten to retraumatize an already traumatized victim.

Psychotherapy must address two fundamental aspects of PTSD: the deconditioning of anxiety, and the pervasive effects that trauma has on the way victims view themselves and the world. In only the simplest cases will it be sufficient to decondition the anxiety associated with the trauma. In the vast majority of patients, both aspects will have to be treated, which means the use of a combination of procedures for Reconditioning anxiety, for changing beliefs, and for developing a cognitive system that somehow allows a person to continue to cope effectively in a world that now is known to be capable of great destructiveness (Epstein, 1991).

1) Stabilization

In the treatment of simple cases of PTSD, it is perhaps possible to move quickly, to activating the traumatic memory. In more complex cases, it should be part of a more encompassing treatment model, which must include careful preparation, with an eye on providing the patient with a capacity to feel safe while accessing traumatic material (e.g. Brown & Fromm, 1986). For the past century, psychotherapeutic clinicians have basically adopted a phase-oriented model that consists of (1) reintegration and rehabilitation (cf. van der Hart, Brown & van der Kolk, 1989; Herman, 1992). In the first phase the foundation is laid that enables patient to deal with the challenge of confronting the trauma. The patient is helped with establishing more stability and safety in daily life, including social support, stress inoculation, ways of controlling symptoms and ways of containing intrusive memories (e.g. van der Hart et al., 1993). Psychopharmacological management often is an integral part of stabilization.

2) The identification of feelings by verbalizing somatic states

The function of emotions is to alert people to the occurrence, significance, and nature of subjectively significant events (Krystal, 1978). Ordinarily, emotions are de-activated when schemas and situations have been realigned (e.g., by taking action that conforms situations to schemas, or by amending schemas to better fit situations) (Horowitz, 1986). Thus, emotions function as signals to readjust one's expectations of the world and to take adaptive action. Krystal (1978) first noted that in people with PTSD emotions seem to lose much of their alerting function: a dissociation is set up between emotional arousal and goal directed action. Traumatized people lose their capacity to interpret the meaning of their emotional arousal, which thus becomes irrelevant as a current signal. Unable to interpret the meaning of their emotional arousal, feelings themselves become endowed with a negative valence: because no release can be found in adaptive action, emotions merely become reminders of one's inability to affect the outcome of one's life. Hence, aside from the concrete, usually visual, reminders of the trauma, feelings in general come to be experienced as traumatic reminders, and are to be avoided (van der Kolk & Ducey, 1989).

Unable to neutralize affects with adaptive action, traumatized people tend to experience their affects as somatic states: either through their smooth, or striated musculature. Thus, people with PTSD tend to somatize (Saxe et al, 1994,) or to discharge their emotions with actions that are irrelevant to the stimulus that precipitated the emotion: with aggressive actions against self or others (van der Kolk et al, 1991). When the disorganizing intrusions can be understood as failures of integration of traumatic experiences into the totality of one's life, the psychotherapist is in a position to recognize seemingly overwhelming affective experiences as actual reliving of past terror. One's natural proclivity in psychotherapy is to help the patient avoid experiencing undue pain; yet the patient's affective experiences are part and parcel of healing and integration. The psychotherapist who understands the nature of trauma can aid the process of integration by staying with the patient through his suffering, by providing a perspective that the suffering is meaningful and bearable, and by helping in the mastery of trauma through putting the experience into symbolic, communicable form, such as words, thoughts, and feelings. The patient's "repeating" the trauma in action is the forerunner to his "remembering" and symbolizing it in words, which in turn is the precursor accompaniment to his "working it through" in emotional experience.

3) Deconditioning of traumatic memories and responses

This consists of: (a) controlled activation of the traumatic memories, and (b). corrections of faulty traumatic beliefs. The critical issue is to introduce the capacity to flexibly remember the trauma. In order

for this to occur, some new information that is incompatible to the traumatic memory must be introduced (Foa et al., 1989). The most important new information is probably the fact that the patient is able to confront the traumatic memory by a trusted therapist in a safe environment (van der Hart & Spiegel, 1993). In order to help the patient regulate emotional arousal, secure attachment may be even more important than evoking the traumatic memories. Therefore, it is important for the patient to establish and maintain an emotional connection with the therapist. While behavioral therapists speak about exposure-procedures, which are either systematic desensitization procedures or implosive therapy or flooding procedures, they neglect to write about the intensely personal element in all psychotherapeutic procedures, which is a critical element in the success of effective treatment. So, while these clinicians and researchers almost exclusively present their data about decreases of fear or anxiety through controlled exposure to (a) the stimulus components (environmental cues), (b) the response components (e.g. motoric actions, heart pounding), and the meaning elements (e.g. cues regarding morality and guilt) of the traumatic memory (Foa & Kozack, 1986; Foa et al., 1989; Lidz & Keane, 1986), their results are most likely heavily affected by their personal investment in the well-being of their patients, which is communicated and translated into a subjective sense of safety.

According to Foa & Kozak (1985) two conditions are required for anxiety reduction in the treatment of PTSD: 1) a person must attend to fear-relevant information in a manner that will activate his/her own fear memory. As long as the fear is not experienced, the fear structure cannot be modified. 2) in order to form a new, non-fear structure, some of the information that evoked the fear must be absent in the new context in which the fear is being provoked. Exposure to information consistent with a fear memory would be expected to strengthen the fear (i.e., sensitize and thereby increase the likelihood of developing PTSD). Hence the critical issue in treatment is to expose the patient to an experience that contains elements that are sufficiently similar to an existing traumatic memory in order to activate it, and at the same time for it to be an experience that contains aspects that are incompatible enough to change it (for example experiencing a traumatic memory in a safe and controllable environment, being able to evoke a traumatic image, without feeling overwhelmed by the associated emotions).

There are at least two significant problems with this exposure technique: 1) Because excessive arousal interferes with the acquisition of new information, excessive arousal impedes habituation (Strian & Klicpera, 1978). When that occurs, the fear structure will not be corrected, but instead, will be confirmed: instead of promoting habituation, it accidentally fosters sensitization. 2) An additional serious obstacle to effective treatment is that the strong response elements in the PTSD structure may promote avoidance: strong fear and discomfort motivates people who suffer from PTSD to avoid or escape confrontation with situations that remind him/her of the trauma, in order to overcome the intrusive, sensorimotor elements of the trauma, a person must transform the traumatic (non-verbal) memory into a personal narrative, in which the trauma is experienced as a historical event that is part of a person's autobiography. This entails being able to tell the story of the shocking event without reexperiencing it. It is generally assumed that once all relevant elements of the total traumatic experience have been identified and thoroughly and deeply examined and experienced in the therapy, successful synthesis will take place. The work by Resick & Schnicke (1992) supports the notion that exposure of all elements of the trauma, and their associated shifts in perception of self and others does lead to successful resolution of trauma-related symptomatology.

4) Restructuring of trauma-related schemes of internal and external reality

Apart from treatment needing to address specific trauma-related memories, and fostering de-conditioning, treatment needs to address the effects of the trauma on people's perceptions of themselves, and the world around them. People are meaning-making creatures. As we develop we organize our world according to a personal theory of reality, some of which may be conscious, but much of which is an unconscious integration of accumulated experience. These mental schemas organize psychological experience via the process of assimilation and accommodation and assure continuity of one's identity (Horowitz, 1991). Although most people cannot clearly articulate the content of their mental schemes, they nonetheless determine what sensory input is selected for further coding and categorization. Adaptive resolution to a stressful experience consists of the modification, or accommodation one's view of self and others that permits adaptive action and continued attention to the exigencies of daily life. In order to successfully deal with a distressing experience, it is necessary to not generalize from that experience to the totality of

existence, but to view it merely one terrible event that has taken place at a particular place at a particular time (Epstein, 1991).

Traumatic experiences, i.e. experiences that do not fit into people's personal schemes, may be assimilated (directly taken in). ("That never happened." "I caused it to happen."), or people may accommodate to the experience by altering their conceptions of the world ("There is no safe place." "This happened because people are out to hurt me.") (Resick & Schnicke, 1992, Hollon and Garber, 1988).

Traumatic experiences are not only processed by means of currently existing mental schemes, but they may also activate latent self-concepts and views of relationships that were formed earlier in life. This activation of latent schemes is particularly relevant for people with prior histories of trauma, even in those who subsequently have been able to make a successful adaptation. When trauma activates these earlier self-schemas, these will compete and co-exist with more mature schemes in explaining cause and effect relationships in regards to the trauma. These different, and often competing mental schemes then will determine the psychological organization of the traumatic experience.

Psychotherapy needs to specifically address how the trauma has affected people's sense of self-efficacy, their capacity for trust and intimacy, their ability to negotiate their personal needs, and their ability to feel empathy for other people (McCann & Pearlman, 1990).

5) Exposure to restitutive experiences

Considering the fact that the central psychological preoccupation of traumatized people is either the reliving or the warding off of the memory of the trauma, there is little room for new, gratifying experiences which might allow for reparation of past injuries to the self. Patients need to actively expose themselves to experiences that provide them with feelings of mastery and pleasure. Engagement in physical activities, such as sports or wilderness ventures, gratifying physical experiences, such as massages, or artistic accomplishments may be experiences that patients build up that are not contaminated by the trauma, and which may serve as a core of new gratifying experiences.

Group Psychotherapy

Emotional attachment is the primary protection against being traumatized: people have always gathered in communities and organizations to help them deal with outside challenges: we seek close emotional relationships with others in order to help us anticipate, meet and integrate difficult experiences. Contemporary research (e.g. Quanterelli, 1985; Holen, 1990) has shown that as long as the social support network remains intact, people are relatively well protected against even catastrophic stresses. For young children, the family usually is a very effective source of protection against traumatization, and most children are amazingly resilient as long as they have a caregiver who is emotionally and physically available (Wender, 1989; van der Kolk, Perry & Herman, 1991, McFarlane, 1988). Mature people also rely on their families, colleagues and friends to provide such a trauma membrane. In recognition of this need for affiliation as a protection against trauma, it has become widely accepted that the central issue in acute crisis intervention is the provision and restoration of social support (Lystad, 1988; Raphael, 1986; Mitchell, 1983). However, curiously, research has not supported the efficacy of standardized Stress Debriefing interventions following trauma.

The task of group therapy and community interventions is to help victims regain a sense of safety and of mastery. After an acute trauma, fellow victims often provide the most effective short-term bond because the shared history of trauma can form the nucleus of retrieving a sense of communality.

Regardless of the nature of the trauma, or the structure of the group, the aim of group therapy is to help people actively attend to the requirements of the moment, without undue intrusions from past perceptions and experiences. Group therapy is widely regarded as a treatment of choice for patients with trauma histories. It has been used for victims of interpersonal violence (Mitchell, 1983) natural disasters (Lystad, 1988; Raphael, 1986), childhood sexual abuse (Herman & Shatzow, 1987, Ganzarian & Buchele, 1987; Schacht et al, 1990), rape (Yassen & Glass, 1984), spouse battering (Rounsaville et al, 1979), concentration camps (Danielli, 1985) and war trauma (Parson, 1985). In a group of people who have gone

through similar experiences, most traumatized people eventually are able to find the appropriate words to express what has happened to them. As was observed almost fifty years ago: "by working out their problems in a small group they should be able to face the larger group, i.e., their world, in an easier manner" (Grinker & Spiegel, 1946).

There are many levels of trauma-related group psychotherapies, with different degrees of emphasis on stabilization, memory retrieval, bonding, negotiation of interpersonal differences, and support. However, to varying degrees, the purpose of all trauma related groups is to 1) stabilize psychological and physiological reactions to the trauma, 2) to explore and validate perceptions and emotions, 3) to retrieve memories, 4) to understand the effects of past experience on current affects and behaviors and 5) to learn new ways of coping with interpersonal stress (see van der Kolk, 1992).

Psychopharmacological Treatment

While it is widely recognized that PTSD is a "physioneurosis", i.e. that it is based on psychological manifestations of biological changes, systematic psycho-pharmacological studies of PTSD are scarce and almost entirely limited to tricyclic antidepressants and MAO inhibitors. As of July, 1994, a total of only 134 patients with PTSD had been studied in double-blind placebo controlled studies. The treatment effects of the psychotropic agents examined in these systematic studies have been quite modest (Davidson, 1992). In addition, in open studies and clinical reports, usefulness has been claimed for benzodiazepines, lithium carbonate, carbamazepine, clonidine and beta adrenergic blockers (van der Kolk, 1987; Davidson, 1988; Friedman, 1988), but their efficacy has not been confirmed in double-blind, placebo controlled studies.

Three double-blind trials of tricyclic antidepressants have been published (Frank et al., 1988; Kosten et al., 1991; Davidson et al., 1990; Reist et al., 1989), two of which demonstrated some improvement in PTSD symptoms (Frank et al., 1988; Kosten et al., 1991; Davidson et al., 1990). Davidson et al (1990), studying in-patient and out-patient veterans of World War II and Vietnam, showed that amitriptyline caused a decrease in overall PTSD, primarily by decreasing avoidant symptoms. In two reports of essentially the same sample, Frank et al. (1988), Kosten et al. (1991) and their collaborators found that imipramine was more effective than placebo in out-patient Vietnam veterans, particularly decreasing intrusive symptoms. On the other hand, Reist et al (1989) found no significant difference between desipramine and placebo in a four week crossover trial. All three studies report a lack of placebo response in war veterans with chronic PTSD.

Phenazine sulfate has been used in two double-blind trials, with a total of 40 subjects. One study was positive (Frank et al., 1988; Kosten et al., 1991) showing improvement in intrusive symptoms of PTSD, without significant effect on avoidant symptoms. The other failed to demonstrate a positive effect of phenazine on PTSD symptoms in a mixed civilian/combat veteran population (Shetatsky, 1988).

During the past few years evidence has accumulated that the serotonin reuptake blockers are likely to be the most effective drugs in the treatment of chronic PTSD (e.g. Davidson et al., 1991; March, 1992; Nagy et al., 1993). In our own studies (van der Kolk et al 1994) we were able to show that fluoxetine can have profound effects on numbing arousal, and, to a lesser degree, on intrusions. Fluoxetine had a significant positive effect on the dimensions of affect dysregulation, distorted relationships with others and loss of sustaining beliefs. Positive effects became evident after five weeks on active drug was sufficient to demonstrate significant improvement. Fluoxetine was not only effective in alleviating the core symptoms of PTSD, but also the associated features: affect dysregulation, distorted relationships with others and loss of sustaining beliefs. Our study showed that the beneficial effect of fluoxetine on PTSD is not a function of its antidepressant effects, but, instead, by making people with PTSD feel less numb and more in tune with their surroundings, fluoxetine is likely to make them feel better equipped to deal with residual trauma-related fears, recollections and intrusions.

The efficacy of this serotonin reuptake blocker on PTSD symptomatology raises intriguing questions about the possible role of serotonin in the psychopathology of PTSD. The increased availability of serotonin in the hippocampus may activate inhibitory pathways in the limbic system that prevent the initiation of habitual emergency responses (van der Kolk, 1994). Animal research has shown that serotonin receptor blockers reverse the suppression of fear-induced behavior, probably because an increase in available serotonin in

the limbic system amplifies the signals necessary to distinguish punishment from reward (Gray, 1988)

Concluding Remarks

After a trauma which fully confronts people with their existential helplessness and vulnerability, life can never be exactly the same: the traumatic experience will somehow become part of a person's life. Sorting out exactly what happened and sharing one's reactions with others can make a great deal of difference in one's eventual adaptation. Putting the feelings and cognitions related to the trauma into words is essential in the treatment of post traumatic reactions. After intense efforts to ward off reliving the trauma, therapists cannot expect that the resistances to remember will suddenly melt away under their empathic efforts. The trauma can only be worked through when a secure bond is established with another person; this then can be utilized to hold the psyche together when the threat of physical disintegration is re-experienced.

Failure to approach trauma related material gradually is likely to lead to intensification of posttraumatic symptomatology, leading to increased somatic, visual or behavioral reexperiences. Once the traumatic experiences have been located in time and place, a person can start making distinctions between current life stresses and past trauma, and decrease the impact of the trauma on present experience. Talking about the trauma is not enough: trauma survivors need to take some action that symbolizes triumph over helplessness and despair. The Holocaust Memorial Yad Vashem in Jerusalem and the Vietnam Memorial in Washington, DC, are good examples of symbols for survivors to mourn the dead and establish the historical and cultural meaning of the traumatic events. Most of all, they serve to remind survivors of the ongoing potential for communality and sharing. This also applies to other survivors who may have to build less visible memorials and common symbols around which they can gather to mourn and express their shame about their own vulnerability. This may take the form of writing a book, taking political action, helping other victims, or any of the myriad of creative solutions that human beings can find to defy even the most desperate plight.

References

- Bowlby, J. (1969). *Attachment and loss: Vol.1. Attachment*. New York: Basic Books.
- Bremner, J.D., Steinberg, M., Southwick, S.M., et al. (1993). Use of the structured clinical interview for DSM-IV dissociative disorders for systematic assessment of dissociative symptoms in posttraumatic stress disorder. *American Journal of Psychiatry*, 150,1011-1014.
- Breslau, N., Davis, G.C., & Andreski, P. (1991). Traumatic events and post traumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry*. 48, 216-222.
- Brown & Fromm. (1986). *Hypnoanalysis and hypnotherapy* Hillsdale, NY: Lawrence Erlbaum Associates.
- Danielli, Y. (1985). The treatment and prevention of long-term effects and intergenerational transmission of victimization: A lesson from holocaust survivors and their children. In C.R. Figley (Ed.), *Trauma and Its Wake (Vol.1)*. New York: Brunner/Mazel.
- Davidson, J.R.T. (1992). Drug therapy of post traumatic stress disorder. *British Journal of Psychiatry*, 160, 309-314.
- Davidson, J.R.T., Nemeroff, C.B. (1989). Pharmacotherapy in PTSD: Historical and clinical considerations and future directions. *Psychopharmacology Bulletin* 15, 422-425.
- Davidson, J.R.T., Kudler, H., Smith, R., Mahorney, S., Lipper, S., Hammett, E., Saunders, W., & Cavenar, J.O. (1990). Treatment of post-traumatic stress disorder with amitriptylene and placebo. *Archives of General Psychiatry*, 47, 259-266.
- Davidson, J.R.T., Roth, S., & Newman, E. (1991). Treatment of post-traumatic stress disorder with fluoxetine. *Journal of Traumatic Stress*, 4, 419-423.
- Epstein, S. (1991). The self-concept, the traumatic neurosis, and the structure of personality. In D. Ozer,

- J.M. Healy, Jr., & A.J. Stewart (Eds.), *Perspectives in personality* (Vol. 3, Part A, pp. 63-98). London: Jessica Kingsley.
- Foa, E.B. & Kozak, M.J. (1985). Treatment of anxiety disorders: Implications for psychopathology. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and Anxiety Disorders*. Hillsdale, NY: Lawrence Erlbaum Associates.
- Foa, E.B., & Kozak, M.J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, 99, 20-35.
- Foa, E. B. , Steketee, G. & Olasov, B.R. (1 989). Behavioral/cognitive conceptualizations of posttraumatic stress disorder. *Behavior Therapy*, 20, 155-176.
- Foa, F., Rothbaum, B. O., Riggs, D. S., & Murdock, G. B. (1991). Treatment of post traumatic stress disorder in rape victims: Comparison between cognitive behavioral procedures and counseling. *Journal of Consulting and Clinical Psychology*, 59, 715-725.
- Frank, J.B., Kosten, T.R., Giller, E.L., & Dan, E. (1988). A preliminary study of phenazine and imipramine for post-traumatic stress disorder. *American Journal of Psychiatry*, 145, 1289-1291
- Freud, S. (1959). Formulations on the two principles of mental functioning. In J. Strachey (Ed. and Trans.), *Complete psychological works. standard edition* (Vol. 12). London: Hogarth Press. (Original work published 1911)
- Friedman, M. (1988). Toward rational pharmacotherapy of post traumatic stress disorder. *American Journal of Psychiatry*, 145, 281-285.
- Ganzarain, R. & Buchele, B. (1987). Acting out during group psychotherapy for incest. *International Journal of Group Psychotherapy*, 37, 185-200.
- Gray, J. (1988). *The psychology of fear and stress* (2nd ed.). Cambridge: Cambridge University Press.
- Grinker, R., & Spiegel, H. (1946). *Men under Stress*. New York: Basic Books.
- Heltzer, J.E., Robins, L.N., & McEvoy, L. (1987). Post-traumatic stress disorder in the general population. *New England Journal of Medicine*, 317(26), 1630-1634.
- Herman, J.L. (1992). *Trauma and recovery*. New York: Basic Books.
- Herman, J.L. & Schatzow, E. (1987). Recovery and verification of memories of childhood sexual trauma. *Psychoanalytic Psychology*, 1(1), 1-14.
- Holen, A. (1990). *A long term study of survivors from a disaster*. Oslo: University of Oslo Press.
- Hollon, S.D., & Garber, J. (1988). Cognitive therapy. In L.Y. Abrahamson (Ed.), *Social cognition and clinical psychology: A synthesis* (pp. 204-253). New York: Guilford Press.
- Horowitz, M.J. (1991). *Person schemas and maladaptive interpersonal patterns*. Chicago: University of Chicago Press.
- Horowitz, M.J. (1986). *Stress response syndromes* (2nd ed.). Northvale, NJ: Aronson.
- Janet, P. (1889). *L'Automatisme Psychologique*. Paris: Alcan.
- Janet, P. (1904). L'amnesie at la dissociation des souvenirs par emotion. *Journal de Psychologie*, 1, 417-453.
- Kardiner, A. (1941). *The traumatic neuroses of war*. New York: Hoeber.
- Kosten, T.R., Frank, J.B., Dan, E., McDougle, C.J., & Giller, E.L. (1991). Pharmacotherapy for post traumatic stress disorder using phenazine and imipramine. *Journal of Nervous and Mental Disorders*, 179, 366-370.
- Krystal, H. (1978). Trauma and Affects. *Psychoanalytic Study of Children*. 33, 81-116.

- Kulka, R.A., Schlenger, W., & Fairbank, J. (1990). *Trauma and the Vietnam war generation*. New York: Brunner/Mazel.
- Laub, D., & Auerhahn, N.C. (1993). Knowing and not knowing massive psychic trauma: Forms of traumatic memory. *International Journal of Psychoanalysis*, 74, 287-301.
- Lidz, B.T., & Keane, T.M. (1989). Information processing in anxiety disorders: Application to the understanding of post-traumatic stress disorder. *Clinical Psychology Review*, 9, 243-257.
- Lystad, M. (1988). *Mental health response to mass emergencies*. New York: Brunner/Mazel.
- March, J. (1992). Fluoxetine and flovoxamine in PTSD [Letter to the editor]. *American Journal of Psychiatry*, 149, 413.
- Marmar, C.R., Weiss, D.S., Schlenger, W.E., et al. (1994). Peritraumatic dissociation and posttraumatic stress in male Vietnam theater veterans. *American Journal of Psychiatry* 151, 902-907.
- McCann, I.L., & Pearlman, L.A. (1990). *Psychological trauma and the adult survivor: Theory, therapy and transformation*. New York: Brunner/Mazel.
- McFarlane, A.C. (1988). Recent life events and psychiatric disorder in children: The interaction with preceding extreme adversity. *Journal of Clinical Psychiatry*, 29(5), 677-690.
- McFarlane, A.C. (1994). Individual psychotherapy for post-traumatic stress disorder. *Psychiatric Clinics of North America*, 17(2), 393-408.
- Mitchell, J. (1983). The critical incident stress debriefing. *Journal of Emergency Medical Services*, 8, 36-39.
- Nagy, L.M., Morgan, C.A., Southwick, S.M., & Charney, D.S. (1993). Open prospective trial of fluoxetine for post traumatic stress disorder. *Journal of Clinical Psychopharmacology*, 13, 107-114.
- Parson, E.R. (1988). Posttraumatic accelerated cohesion: Its recognition and management in group treatment of Vietnam veterans, *Group* 9(4), 10-23.
- Pennebaker, J.W. (1993). Putting stress into words: Health, linguistic, and therapeutic implications. *Behav. Res. Therapy*, 31(6), 539-548.
- Pitman, R.K., Altman, B., Greenwald, E., Longpre, R.E., Macklin, M.L., Poire, R.E., & Steketee, G.S. (1991). Psychiatric complications during flooding therapy for posttraumatic stress disorder. *Journal of Clinical Psychiatry*, 52(1), 17-20.
- Quarantelli, E.L. (1985). An assessment of conflicting views on mental health: The consequences of traumatic events. In C.R. Figley (Ed.), *Trauma and Its Wake* (Vol.1). New York: Brunner/Mazel.
- Raphael, B. (1986). *When disaster strikes: How individuals and communities cope with catastrophe*. New York: Basic Books.
- Rauch, S., van der Kolk, B.A., Fislcr, R., Alpert, N., Orr, S., Savage, C., Jenike, M., & Pitman, R. (in press). A symptom provocation study using Positron Emission Tomography and Script Driven Imagery. *Archives of General Psychiatry*.
- Reist, C., Kaufman, C.D., & Haier, R.J. (1989). A controlled trial of desipramine in 18 men with PTSD. *American Journal of Psychiatry*, 146, 513-516.
- Resick, P.A., & Schnicke, M.K. (1992). Cognitive processing therapy for sexual assault victims. *Journal of Consulting and Clinical Psychology*, 60(5), 748-756.
- Rounsaville, B., Lifton, N., & Bieber, M. (1979). The natural history of a psychotherapy group for battered women. *Psychiatry*, 42, 63-78.
- Saxe, G., van der Kolk, B.A., Hall, K., Schwartz, J., Chinman, G., Hall, M.D., Lieberg, G., & Berkowitz, R. (1993). Dissociative disorders in psychiatric inpatients. *American Journal of Psychiatry*, 150(7), 1037-1042.

Saxe, G.N., Chinman, G., Berkowitz, R., Hall, K., Lieberg, G., Schwartz, J., & van der Kolk, B.A. (1994). Somatization in patients with dissociative disorders. *American Journal of Psychiatry*, 151, 1329-1335.

Schacht, A., Kerlinsky, D., Carldon, C. (1990). Group therapy with sexually abused boys: Leadership, projective identification, and countertransference issues. *International Journal of Group Psychotherapy*, 40(4), 401-417.

Shetatsky, M., Greenberg, D., & Lerer, B. (1988). A controlled trial of phenazine in posttraumatic stress disorder. *Psychiatry Research*, 24, 149-155.

Strian, F., Klicpera C. (1978). Die Bedeutung psychoautonomischer Reaktionen im Entstehen und Persistenz von Angstzuständen. *Nervenarzt*, 49, 576-583.

van der Hart, O., Brown, P., & van der Kolk, B.A. (1989). Pierre Janet's treatment of posttraumatic stress. *Journal of Traumatic Stress*, 2,(4).

van der Hart, O., & Spiegel, D. (1993). Hypnotic assessment and treatment of trauma induced psychoses: The early psychotherapy of H. Breukink and modern views. *International Journal of Clinical and Experimental Hypnosis*, 41, 191-209.

van der Hart, O., Steele, K., Boon, S., & Brown, P. (1993). The treatment of traumatic memories: Synthesis, realization, and integration. *Dissociation*, 6, 162-180.

van der Kolk, B.A. (1987). The drug treatment of post-traumatic stress disorder. *Journal of Affective Disorders*, 13, 203-213.

van der Kolk, B.A. (1992). Group psychotherapy with post traumatic stress disorders. In H. Kaplan & B. Sadock (Eds.), *Comprehensive Group Psychotherapy* (pp. 550-560). Williams & Wilkins.

van der Kolk, B.A. (1994). The body keeps the score: Memory and the evolving psychobiology of post traumatic stress. *Harvard Review of Psychiatry*, 1, 253-65.

van der Kolk, B.A., Dreyfuss, D., Berkowitz, R., Saxe, G., & Michaels, M. (1994, December). Fluoxetine in post traumatic stress. *Journal of Clinical Psychiatry*.

van der Kolk, B.A., & Ducey, C. (1984). Clinical implications of the Rorschach in post-traumatic stress disorder. In B.A. van der Kolk (Ed.), *Post-traumatic stress disorder: Psychological and biological sequelae* (pp. 30-42). Washington, D.C: American Psychiatric Press.

van der Kolk, B.A., & Ducey, C.P. (1989). The psychological processing of traumatic experience: Rorschach patterns in PTSD. *Journal of Traumatic Stress*. 2, 259-274.

van der Kolk, B.A., & Fisler, R. (1994). Childhood abuse & neglect and loss of self-regulation. *Bulletin of Menninger Clinic* 58:145-168.

van der Kolk, B.A., & Fisler, R. (1995, in press). Dissociation and the fragmentary nature of traumatic memories: Background and experimental evidence. *Journal of Traumatic Stress*.

van der Kolk, B.A., Perry, J.C., & Herman, J.L. (1991). Childhood origins of self-destructive behavior. *American Journal of Psychiatry*, 148, 1665-1671.

Yassen, J., & Glass, L. (1984). Sexual assault survivor groups. *Social Work*, 37, 252-257.

TABLE 1

SIMPLE PTSD (DSM IV)

- A. Exposure to life threatening experience
 - 1. Intense subjective distress upon exposure
- B. Reexperiencing the trauma

1. recurrent intrusive recollections, or repetitive play
 2. recurrent dreams
 3. suddenly acting or feeling as if the traumatic event were recurring
 4. intense distress upon re-exposure to events reminiscent of trauma
 5. physiological reactivity upon reexposure
- C. Persistent avoidance or numbing of general responsiveness
1. efforts to avoid thoughts or feelings associated with trauma
 2. efforts to avoid activities
 3. psychogenic amnesia
 4. diminished interest in significant activities
 5. feelings of detachment or estrangement
 6. sense of foreshortened future
- D. Persistent symptoms of increased arousal
1. difficulty falling or staying asleep
 2. irritability or outbursts of anger
 3. difficulty concentrating
 4. hypervigilance
 5. exaggerated startle

TABLE 2**Complicated PTSD**

- A. Alteration in Regulation of Affect and Impulses
1. Affect Regulation
 2. Modulation of Anger
 3. Self-Destructive
 4. Suicidal Preoccupation
 5. Difficulty Modulating Sexual involvement
 6. Excessive Risk taking
- B. Alterations in Attention or Consciousness
1. Amnesia
 2. Transient Dissociative Episodes and Depersonalization
- C. Somatization
1. Digestive System
 2. Chronic Pain
 3. Cardiopulmonary Symptoms
 4. Conversion Symptoms
 5. Sexual Symptoms
- D. Alterations in Self-Perception
1. Ineffectiveness
 2. Permanent Damage
 3. Guilt and Responsibility
 4. Shame
 5. Nobody Can Understand
 6. Minimizing
- E. Alterations in Perception of the Perpetrator
1. Adopting Distorted Beliefs
 2. Idealization of the Perpetrator
 3. Preoccupation with Hurting Perpetrator
- F. Alterations in Relations with Others
1. Inability to Trust
 2. Revictimization
 3. Victimizing Others
- G. Alterations in Systems of Meaning

1. Despair and Hopelessness
2. Loss of Previously Sustaining Beliefs

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