11 "First Do No Harm:" Emerging Guidelines for the Treatment of Posttraumatic Reactions

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Despite its many problems, publication of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; American Psychiatric Association, 1980) set the fields of psychiatry and clinical psychology on a solid empirical footing and fostered great advances in epidemiology and in the evaluation of various theories and therapies. But this progress came at a cost, which is perhaps most clearly illustrated by the concept of Posttraumatic Stress Disorder (PTSD). The DSM-III heralded a new positivistic paradigm with imbedded unexamined assumptions that neglected important issues, which then progressively faded from memory. Two decades later, these issues have now resurfaced in therapeutic controversies surrounding PTSD.

PTSD is concerned with a ubiquitous human condition, reaction to adversity. Humans have long tried to cope with adversity, using a multitude of strategies. Modern therapies for PTSD date back to the middle of the nineteenth century with the increased involvement of physicians. A historical perspective on these early therapies will shed light on the nature of current controversies and put contemporary therapies for PTSD in context. In this chapter, we present an overview of this history while also highlighting important findings in the recent scientific literature on posttraumatic reactions. By synthesizing key findings from both the historical and recent scientific literatures, we derive four emergent lessons that we believe may prove fruitful in directing future intervention efforts.

Our central thesis is that the history of adversity-linked emotional disorders has been shaped by the history of medical beliefs about these phenomena. An interaction occurs between professional and patient, who translate their common understandings into physical and mental complaints (Shorter, 1992, 1994). The present positivistic paradigm of mental disorders (the belief that suffering has an objective physical basis independent of the assumptions of the observing healer) neglects the influence of this healer–patient dynamic in raising or lowering expectancy of recovery. The hope is that this chapter will restore an appreciation of the therapeutic and iatrogenic influences of the healer.

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FROM RAILWAY SPINE TO PTSD

Consolation for adversity and suffering in general has long been a jealously guarded religious practice (Bowker, 1970). Physicians and other health care providers cared for physical illness, but only priests could legitimately and meaningfully minister to spiritual suffering. A remnant of this division is the fact that grieving is still a predominantly religious concern. Priests focus on the present situation rather than past events in their consolation of worshippers. Emotional problems, including the sequelae of adversity, came to be viewed as legitimate medical concerns once they were conceived as physical or somatic in nature. The notion became popular in military circles, as military success depended on the morale of the troops. The introduction of firearms in the Renaissance caused widespread fear among soldiers, affecting their ability to fight. The sudden death of soldiers exposed to artillery, but without any apparent outside wound, sent panic among the ranks and affected their will to fight. This gave rise to notions of the "wind of the bullet" (Pare, 1585/1840; Larrey, 1814a, 1814b) and nostalgia (Hofer, 1688/1934). The first signs of this often fatal disease was acute demoralization. Military command did not completely accept these medical concepts; military debates about the nature of troop morale—was it a medical problem or a general lack of discipline?—date back to at least the sixteenth century. Imbedded in this debate was of course the issue of the best way of handling morale problems: military discipline for malingerers vs. medical care for legitimate sufferers (see also Keen, Mitchell, & Morehouse, 1864; Da Costa, 1871). The debate about the medical legitimacy of adversity-linked emotional distress continues to plague the military field, as evidenced by the recent history of PTSD following the Vietnam War and the more recent debates over Gulf War Syndrome.

The civilian counterpart of these types of distress arose in the context of legal compensation for industrial accidents. Here, the hand of man was all too visible for such suffering to be blamed on Acts of God. Anglo-Saxon Common Law compensated only physical disabilities that resulted in loss of income and not mental damages per se (Baker v. Bolton, 1808; Lynch v. Knight, 1861). It was in this legal context that debates emerged on the nature of emotional distress resulting from industrial accidents. For example, Erichsen (1866, 1875/1882) proposed "Railway Spine," as a new condition of lower extremities characterized by paralysis of the legs and occasional emotional instability. Erichsen believed the condition to be the result of a concussion of the spine during railway accidents, a physical condition, and he became a champion for victims' claims. His prescribed therapy was massage and physical rehabilitation. Beard (1869, 1880) described a similar condition that he believed was the result of exhaustion of nervous energy, "neurasthenia." Beard advocated mild electric treatment to restore a patient's nervous energy, but he also noted the importance of morbid expectations and advocated that psychotherapy raise expectations of recovery (Beard, 1876, 1877). His colleagues soundly rejected his "mental therapeutics" as "humbuggery," not legitimate for medical practice and best left to shamans and priests.

Although the notions of Railway Spine and neurasthenia were widely disseminated in the popular press of the time, new developments in the nascent field of neurology and the use of epidemiology suggested a more skeptical approach to these phenomena. Surgeons for the railway companies testified that the victims of railway accidents were suffering from hysteria, a generally derogatory and dismissive term. A well-publicized battle of the

experts in court threatened to discredit the medical profession and inspired a multitude of articles and some empirical research in an effort to resolve the dispute. Hodges (1881) challenged the notion of concussion of the spine on both anatomical and epidemiological grounds. Page (1883) conducted a large follow-up of 234 patients injured in railway accidents and concluded that the disorder was mental and not spinal. "The pain in *all* movements may be so great . . . that the patient is really afraid to move at all. This well-grounded *fear of moving* may soon assume the importance of an absolute inability to move" (p. 109, italics in original).

Page's conceptualization of the symptoms produced by railway accidents paralleled those elicited by Charcot in his attempt to demonstrate an anatomical basis for hysteria (Charcot, 1877, 1878). Charcot and his disciples argued that hysteria consisted of a pattern of symptoms traced back to brain physiology, thereby making the disorder a legitimate medical condition to be wrestled from the superstitions of the Church (Charcot & Richer, 1887). In a series of lectures in 1885, Charcot (1889) experimentally demonstrated that the symptoms of "railway spine" could be produced and eliminated through hypnosis. He concluded that railway spine, which he termed "hystero-traumatism," was "hysteria, nothing but hysteria" (Charcot, 1889, p. 221). The recommended treatment was a series of hypnotic and metallotherapeutic sessions, which gradually eliminated the symptoms. Charcot's project of establishing the anatomical basis of hysteria has strong parallels with the present positivistic paradigm, which emphasizes the presumed biological basis of mental illness. Instead of pharmaceutical agents, Charcot used hypnosis as his therapeutic and investigative tool.

A few physicians actually went a step further than Charcot, arguing that posttraumatic symptoms were due to true brain lesions, resulting in permanent and incurable conditions—"traumatic neurosis" was the nineteenth-century sense of the term, a physical disease of the nerves (Oppenheim, 1889). This was contrary to Charcot's theory of a physiological or functional brain lesion that was temporary and reversible. Although the majority of neurologists rejected this more extreme position, they nevertheless preferred Oppenheim's terminology to Charcot's "hystero-traumatism." This terminological preference set the stage for the use of the term neurosis, now understood as a psychological reaction to an event rather than a physical injury to the nerves.

New experimental evidence quickly challenged the medical positivism of Charcot and Oppenheim. Bernheim (1889) and Delboeuf (1890) argued that hysterical symptoms were only the result of suggestion or expectancy, produced by popular culture and/or the examining physician. Charcot's patients were simply the victims of the positivism of expert institutional suggestion. Using care not to suggest any symptoms to their patients, they could not duplicate Charcot's demonstrations of hysterical symptoms. Charcot's critics also argued that hypnosis did not produce a distinctive physical condition but represented, instead, a self-generated subjective mental condition of the patient. In other words, hypnosis was simply self-suggestion, and some healers were better than others at inducing suggestions. The critical issue, therefore, was what the patient believed. The new treatments proposed by Bernheim and Delboeuf, whose goals were to foster healthy self-suggestions, were termed "psychotherapy."

By the end of his life, Charcot had moved from a strictly somatic position to one between mental and physical disorders. Nevertheless, Charcot maintained that the somatic grounding for this condition was necessary for medical legitimacy. While Charcot was alive, his

disciples did not pursue the possibility that hysteria, now a fully legitimate medical condition, was psychological in origin. Charcot's death gave two of his students the latitude to explore psychological dimensions of traumatic neurosis through individual case studies. One of these was Janet (e.g. 1889, 1898, 1911, 1928), who used hypnosis for investigation and treatment, but was careful to avoid the inadvertent suggestions that had undermined Charcot's work. He continued Charcot's project and argued that emotional trauma caused numbness of the mind, diminishing the field of consciousness, and allowing hysterical symptoms to exist disaggregated from the rest of consciousness. He used hypnotic suggestion to change the memories and beliefs of his patients, thereby normalizing these psychological processes and producing dramatic improvements.

Charcot's second influential student was Freud (e.g. 1893, 1894, 1895a, b, 1896a, b, c, 1898; Breuer & Freud, 1895), who explored traumatic neurosis but quickly got lost in ever more elaborate theories of repression of childhood seduction. Freud later changed his position and came to view hysterical symptoms as a result of problematic psychosexual development, associated with memories of poorly processed emotional trauma (Freud, 1905). Freud believed that trauma, experienced through a process of catharsis, had to be abreacted in order to heal. Despite public claims of success (Freud, 1896c), Freud privately admitted that psychoanalytic treatment failed in each of his cases (Freud, 1887–1904/1995).

Prince (1891, 1898a–e) extended Janet's theories and attributed traumatic neuroses to the strong aggregation of two mental phenomena outside of consciousness, which he called "association neuroses." Prince advocated his "educational treatment," a multicomponent intervention that resembled many of the strategies associated with modern behavior therapy, and which included psychoeducation, correction of erroneous fixed ideas and faulty habits, suppression of symptoms by electricity and suggestion, good hygiene, and substitution of healthy habits for morbid ones. Studies of large numbers of railway accident victims supported the mental etiology of traumatic neuroses, now conceptualized as a purely psychological disorder (Bevan, 1900; Outten, 1894, 1907).

Babinski, another of Charcot's disciples, was finally the one to draw the ultimate implication of a decade of accumulated evidence by demonstrating the importance of suggestion in the development of hysteria and its traumatic variant. He argued that hysteria was a result of inadvertent iatrogenic suggestions, even non-verbal ones such as paying undue attention to certain parts of the body. The proposed cure was persuasion. He made a plea for his colleagues not to elicit or suggest possible pathological symptoms (Babinski, 1934). Although the weak form of Babinski's argument was generally accepted, some challenged that the sole basis of hysteria was iatrogenic subjective symptoms (e.g., Dejerine & Gaukler, 1913; see also debates at the 1909/1910 Paris Neurological and Psychiatric Societies meetings in Compte-rendu, 1909). Babinski's argument that such disorders could be cured through persuasion gave rise to multiple moralizing persuasive therapies, which self-consciously avoided any hint of harmful suggestion that might give rise to abnormal symptoms. The use of logical questioning somewhat anticipated modern cognitive therapy. Dubois (1905) and Dejerine (Dejerine & Gaukler, 1913), who also advocated isolation to protect patients from suggestions by other patients and sympathetic family members, developed the most popular of the persuasive therapies.

Thus, by the early twentieth century, reactions to trauma had become legitimate topics

of medical intervention. At the same time, the study of posttraumatic reactions had come full circle, with a growing appreciation of the psychological origins and psychosocial treatments for adversity-linked emotional distress.

LESSONS FROM THE WORLD WARS

When World War I degenerated into static trench warfare in which soldiers became passive recipients of intense artillery barrages, the emotional toll of these bombardments threatened to disable armies on both sides. The French were the first to react to this danger when, in the fall of 1914, consultant neurologists agreed to implement Babinski's ideas on how to treat emotional casualties. It was deemed most important not to suggest morbid ideas in the minds of victims, who were instead to be treated as experiencing a normal reaction to extreme events. Most of the treatment would take place close to the front so as not to suggest unnecessary seriousness of the situation. After some comfort care, sol-diers were returned to the front if improved or evacuated to special army hospitals, where sympathy and firmness were applied. More severe cases were treated with more aggressive forms of persuasion and reeducation. The most severe required drastic measures of persuasion, such as the use of electricity (Southard, 1919). Although these painful treatments were quite effective in eliminating hysterical symptoms, they came close to appearing like torture.

England took longer to develop a strategy to deal with emotional casualties of the war. The second half of 1916 brought about 16,000 cases of "shell-shock," who were evacuated back to England and did not improve with treatment (Shephard, 2000). Charles Myers (1940) took the French line and argued that they should be treated promptly with psychotherapeutic measures in special treatment centers near the front line. The implementation of these recommendations, and the adoption of a new term "not yet diagnosed nervous" to avoid all hint of a diagnostic label, succeeded in dramatically lowering mental casualties in the last two years of the war (Shephard, 2000).

Before the entrance of the United States into the war, the American doctor, Salmon visited England and France to learn from their experience and to formulate a strategy for dealing with the anticipated mental casualties from the war. Salmon (1917) recognized that the main goal was the prevention of secondary mental symptoms that could lead to permanent invalidism. He recommended that emotional casualties be treated immediately and close to the front, with personnel familiar with the nature of functional nervous disorders, and with the expectation of rapid improvement. After an initial brief rest, casualties were to be given meaningful work and returned to duty as soon as possible before morbid habits and thoughts could develop (Salmon, 1917). The acronym PIE was later coined to memorialize the three prongs of Proximity, Immediacy and Expectancy.

In retrospect, relatively absent from the voluminous literature on treatment of mental casualties from the war was any mention of Freudian psychoanalysis (e.g. Brown, 1918; Southard, 1919; Bailey, Williams, & Komora, 1929). Psychodynamic methods (Rivers, 1924) were available only to a few select officers, and were not suited for large numbers of victims. Despite the insignificant contributions of psychoanalysis during WWI, the method won attention in the United States between the two world wars because of promises that caught the popular imagination. American psychoanalysts revived Freud's

concept of traumatic hysterical symptoms as undischarged repressed emotional energy converted into physical symptoms, and claimed that they could cure these symptoms through cathartic release of the repressed energy. The claims had two variants. Dunbar (1935) first linked specific personality types with specific chronic illnesses. When these links failed to be detected, Alexander (1950) argued that specific conflicts resulted in specific symptoms. In both cases, therapeutic claims were anecdotal but were asserted with a great deal of authority. The lack of empirical specificity between physical symptoms and personality or conflict characteristics eventually led to the demise of the psychosomatic paradigm. Nevertheless, the influence of the psychoanalytic program continues to be felt today in at least three important ways. First, the idea of cathartic release of repressed emotional energy from past trauma has become central to certain modern therapies for PTSD. Second, the Freudian theory of symptoms arising objectively from childhood trauma and independent of the observer ushered in a new therapeutic positivism, which anticipated current paradigms in psychiatry and clinical psychology. Third, as discussed below, the specific symptoms that define PTSD in the third and subsequent editions of the DSM are largely a product of psychoanalytic theory.

Due to the influence of psychoanalytic theories, the role of suggestion in the generation of adversity-linked distress was all but forgotten, leaving the United States totally unprepared for the traumas of World War II. The first campaigns of the war brought alarming emotional casualty rates, which at one time exceeded the rate of mobilization (Glass & Bernucci, 1966; Glass, 1973). Responding to this situation, old military psychiatric consultants reinstated Salmon's policy of Proximity, Immediacy, and Expectancy with great improvement in the situation (Glass, 1973). With Freudian psychiatrists at the front, Salmon's strategy was slightly modified to include emotional abreaction with hypnosis (Kardiner & Spiegel, 1947), sodium pentothal, sodium amytal (Sargant, 1967; Grinker & Spiegel, 1943), ether, and so on (Lewis & Engle, 1954; Glass, 1973). However, Hanson (1949) argued that abreaction was not necessary as he achieved superior results with sedation alone. This proved to be the crucial element, allowing the exhausted body to recover. Indeed, by 1943, the official terminology reflected this idea, and war neurosis in World War II was officially termed "battle fatigue," reflecting a normal reaction to abnormal circumstances. In terms of psychotherapeutic intervention, quick well-timed directions, persuasion and counseling, without the customary psychological exploration, were viewed as critical to prevent secondary gain and adoption of a chronic sick role (Spiegel, 2000). Again, the key was to prevent these morbid psychological symptoms from forming (Spiegel, 2000). Shephard (1999) has characterized treatment approaches emerging from the world wars as "Pitiless Psychology," wherein adopted policies where characterized by "deterrence" strategies that included avoidance of diagnostic terms, rest with an expectation of return to battle, and elimination of pensions for war neuroses.

The lessons from the two world wars have now been completely incorporated into military psychiatry and clinical psychology, and battle fatigue (or combat stress under whatever label) has not been a significant *military* problem in the Korean, Vietnam or Gulf I Wars (Jones, 1995). Much of our present knowledge of treatment for emotional trauma in the acute phase (ten days or less) derives from these military experiences. Although not based on methods of prospective randomized controlled trials, experience from the two world wars was extensive, covering over 100,000 victims. The resulting PIE recommendations suggested recuperative measures with sedation, quickly instituted in the vicinity

of a supportive community with strong expectation of recovery and prevention or elimination of potential morbid beliefs. This experience led to an emphasis on expectancies, the "E" in Salmon's PIE strategy (Salmon, 1917; Babinski & Froment, 1918; Southard, 1919; see also Spiegel, 2000), an emphasis consistent with recent findings on expectancy effects in psychotherapy (e.g. Kirsch, 1999; in press) and antidepressant medications (Gaudiano & Herbert, in press). Front line military clinicians went to great pains to avoid inadvertently suggesting pathological symptoms that might contribute to suffering. On the contrary, they were taught to be optimistic about patient recovery. As discussed below, this emphasis has been largely forgotten in modern approaches to treating posttraumatic reactions.

EMERGENCE OF PTSD IN THE DSM

PTSD is a recent addition to the history of the concept of adversity-linked distress. In 1980, it was accepted as a new diagnostic entity in the DSM III, as much, if not more, as a result of political activism (Scott, 1993) than compelling data. In defining PTSD, the responsible APA Committee adopted Horowitz's (1976) modification of Freud's (1920) repetition compulsion, making as the core characteristic of this new disorder the alternation between numbness and arousal. One implication of this framework was that treatment would consist of Freudian abreaction of the traumatic memory. Forgotten from the putatively "objective" list of symptoms defining PTSD were concerns from the first century of medical study on adversity-linked distress, namely the role of the expert healer in determining both the magnitude and nature of reactions to trauma.

The inclusion of PTSD in the DSM inserted the issue of adversity-linked distress into an ambitious program to put mental disorders on a purely objective basis. This positivist program has led to many advances in the past quarter century. Objective methods such as epidemiological surveys have been able to approximate the incidence and prevalence of disorders. The objectification of psychopathology has opened the door to physiological investigation of specific disorders, carefully defined according to specific criteria. Intensity of suffering has been objectified to evaluate the relative efficacy of treatment methods. The development of treatment manuals has permitted replication of intervention programs across sites. The apparently objective structure of the DSM coincided with pharmaceutical successes in taming previously intractable disorders. The success of treating *some* disorders held the promise of treating *all* disorders with medication.

Ironically, the present situation is similar to that of exactly a century ago, before Babinski warned that much of post-traumatic distress might be the result of wellintentioned suggestion. Further, the modern situation has forgotten lessons of the world wars (Shephard, 1999). Rather than self-consciously avoiding the effects of medical diagnoses, we have given adversity-linked distress its own terminology: Posttraumatic Stress Disorder. Accompanying the creation of this diagnosis, we have widely publicized the symptomatology of PTSD to the point that the concept is increasingly a part of the social consciousness. Third, we pay compensation to military and civilian victims of trauma, often providing grounds for retirement in many professions. These developments are opposite the policies of deterrence that arose from military experiences in the world wars.

The current belief in a universal physical reaction to emotional trauma implies a uni-

versality of symptoms that should be invariant both geographically and historically. On the other hand, the importance of the role of suggestion would predict strong variance of these symptoms according to prevailing cultural and expert beliefs. Most cross-cultural epidemiological studies have been of limited value in addressing this question, since they presuppose the universal validity of PTSD, and force indigent peoples to endorse decontextualized statements that might not even make sense. On the other hand, medical anthropologists allow victims to talk spontaneously about their distress. These studies reveal a wide variety of symptoms, and reflect the importance of present conditions over past events in fostering distress (Bracken & Petty, 1998; Kirmayer, Doa, & Smith, 1998; Kleinman, 1995; Kleinman, Das, & Lock, 1997). For instance, the absence of parents or children—a present, enduring and unchanging condition—is more important than having witnessed their death, a single past event (Summerfield, 1999). Depression may well be a more universal result of war than PTSD in the DSM sense (Bolton, Neugebauer, & Ndogoni, 2002).

Furthermore, historical analyses of symptom expression demonstrate changes even within a relatively short period of time among Western cultures. American and European psychiatry has gone from paralysis (railway spine) to seizure and hemianesthesia (hystero-traumatism), fatigue (neurasthenia), mutism and intractable trembling (shell-shock and *Kriegszitterer*), to purely mental symptoms of "repetition compulsion" (flashbacks, night-mares) accompanied by alternating arousal and numbness. The lack of geographical and temporal universality of symptoms argues for an explanatory framework that does not rely on a universal chronic human response to emotional trauma. A more parsimonious explanation is that the specific nature of posttraumatic reactions reflects prevailing cultural beliefs of the time.

THERAPEUTIC IMPLICATIONS OF THE POSITIVISTIC PARADIGM

The current positivistic neglect of the powerful effects of expectancies in favor of a search for permanent biological markers of trauma and pharmacologic interventions has significant therapeutic implications. The approach tends to lead to a pessimistic sense of therapeutic fatalism, and may result in permanent disability and distress in patients. A recent example is the intensive search for permanent physical damage to the brain from emotional trauma, in a research program reminiscent of Charcot's project. Postulated excessive secretion of glucocorticoids produced by exposure to trauma was assumed to cause damage to the hippocampus, a brain structure necessary for the encoding of new autobiographical memories. Indeed, several studies found apparent hippocampal atrophy in patients with PTSD (e.g., Bremner et al., 1995; Gurvits et al., 1996). However, a recent controlled study showed that twins not exposed to emotional trauma showed the same amount of "shrinkage" in their hippocampus (Gilbertson et al., 2002; see also McNally, 2003b, pp. 136–145, for an extensive discussion of this issue). In other words, small hippocampal volume represented a pre-incident risk factor rather than a permanent brain "scar" from the emotional trauma. Nevertheless, some clinicians and researchers continue to use the metaphor of "brain damage." Perhaps the lack of effectiveness of treatment in "difficult" patients results from the inadvertent messages and iatrogenic suggestions con-

tained in such metaphors, as well as the perversity of prevailing social and economic incentives that reward suffering.

Fortunately, the situation need not be so bleak. An appreciation of the lessons derived from military experiences over the past century, combined with recent data on the effects of cognitive-behavioral interventions for PTSD, suggest considerable grounds for optimism.

THERAPIES IN THE ACUTE PHASE FOLLOWING TRAUMA

As discussed above, most of what we know about the efficacy of interventions targeting the immediate after-effects of trauma derives from the considerable accumulated experience of the two world wars. The only modern study on the benefits of PIE in the military context was supportive of its efficacy (Solomon & Benbenishty, 1986). As symptoms of distress in the immediate aftermath of combat may simply reflect physical and emotional exhaustion, immediate and proximal restorative measures combined with expectancy of improvement may be all that is needed. We hypothesize that immediately after intense emotional trauma the individual may be particularly vulnerable to morbid suggestion, which may interfere with natural resiliency. There is evidence that this early reaction may be a universal physiological reaction to stress (Sapolsky, 1998). Perhaps this physiological state of noradrenergic and steroid arousal renders the individual particularly receptive to suggestion. Therefore, it may be especially important to avoid any inadvertent morbid suggestion that may then contribute to chronic distress and disability.

Based on this military experience, it appears that, at present, the most efficacious treatment in the immediate wake of trauma is to allay the early sleep and anxiety problems with immediate recuperative and restorative measures within a supportive social context, including provision of food, shelter and, if indicated, sedation. Individuals need to be actively involved in some form of meaningful activity to prevent self-absorption with the trauma. The emergence of somatic symptoms must be immediately addressed, before they become chronic. Especially critical therapeutic elements appear to be assurance that the individual's reaction is normal, and prevention of pathological beliefs about the possibility of permanent damage and disability.

THERAPIES IN THE SUBACUTE PHASE FOLLOWING TRAUMA

There is a nascent research literature on the effects of brief psychotherapy programs provided in the subacute phase following a traumatic experience. Two studies recently evaluated the ability of cognitive behavior therapy (CBT) to prevent the development of chronic and severe posttraumatic symptoms in vulnerable individuals. Foa, Hearst-Ikeda, and Perry (1995) provided a four-session, multi-component CBT program to ten victims of sexual assault, all of whom met diagnostic criteria for PTSD. Most of the women were referred to the study approximately two weeks following the assault (although one participant was referred after 21 days, and another after 60 days). Two months posttreatment the women had significantly less severe PTSD symptoms relative to a matched, untreated group. Bryant, Harvey, Dang, Sackville, and Basten (1998) reported a similar study, in which 24 victims of various civilian traumas, all of whom met DSM-IV criteria for Acute Stress Disorder (ASD), were randomly assigned to receive five sessions of either CBT or

supportive counseling within two weeks of the traumatic event. Relative to those who received supportive counseling, participants treated with CBT had fewer symptoms and lower rates of PTSD at both posttreatment and at six months posttrauma. At posttreatment, for example, only 8% of the CBT group met diagnostic criteria for PTSD, compared to 83% of those who received supportive counseling.

There are two noteworthy features of these studies that should be highlighted. First, all participants were reporting clinically significant symptoms and impairment in functioning, as evidenced by their meeting diagnostic criteria for ASD or PTSD. Because most individuals do not develop ASD or PTSD subsequent to trauma (Yehuda & McFarlane, 1995), the participants represented a select sample. Second, treatment was not initiated for several days, and in some cases several weeks, following the traumatic event. Therefore, we do not know what happened in the hours and days immediately following the trauma. The question of whether well-intentioned helping efforts in the immediate aftermath of the event might have contributed to the development of ASD or PTSD in some individuals, as well as the related question of whether early intervention programs focused on acknowledgement and normalization of symptoms along with physical recuperation might have arrested the initial development of the disorders, remain unanswered. Nevertheless, for those who do develop impairing symptoms that last at least two weeks, these studies, and more recent ones (e.g. Bryant, Moulds, Guthrie, & Nixon, 2003, in press; Bryant, Sackville, Dang, Moulds, & Guthrie, 1999) strongly suggest that short-term CBT programs may be effective in arresting the development of chronic symptoms and disability.

THERAPIES OF CHRONIC CONDITIONS

The present therapeutic positivism encourages the use of medication in treating chronic PTSD. Only a few randomized controlled trials have been conducted with medications. Open label studies have been conducted with a variety of medications including the selective serotonin reuptake inhibitors, alternative classes of antidepressants including the monoamine oxidase inhibitors and novel agents, mood stabilizers such as carbamazepine, and benzodiazepines. The general finding from uncontrolled studies is that all of these agents lead to general improvement of symptoms. Given the general comorbidity with other forms of psychopathology (e.g., depression, panic disorder), it is unclear whether drug therapy directly addresses symptoms specific to PTSD, or whether these symptoms improve concurrently with improvement in comorbid conditions. Despite the growing use of drug therapy for PTSD, the FDA has only approved two medications, Sertraline and Paroxetine, for treatment of the condition. Because subject selection eliminates people involved in litigation or receiving pensions for PTSD, it is unclear whether these medications are effective in these two important populations. Moreover, the vast majority of medication studies have failed to comment on any potential harmful effects of treatment.

Aside from medications, a growing literature supports the effectiveness of exposurebased psychotherapeutic treatments for post-traumatic symptoms. Using various techniques, such treatments systematically expose the individual to distressing thoughts, images, and memories associated with the trauma (imaginal exposure), as well as associated environmental stimuli (*in vivo* exposure), while also encouraging resumption of normal activities. Exposure-based interventions are often conducted under the general rubric of CBT, in which other techniques such as cognitive restructuring and relaxation

training are integrated into the program. A number of studies support the efficacy of exposure-based therapies in various traumatized populations, including victims of accidents, natural disasters, and non-sexual assault (Bryant et al., 1999; Devilly & Spence, 1999; Marks, Lovell, Noshirvani, Livanou, & Thrasher, 1998), military combat (Keane, Fairbank, Caddell, & Zimering, 1989), and rape (Foa, Rothbaum, Riggs, & Murdoch, 1991; Foa et al., 1999).

Although the literature on the efficacy of exposure-based treatments is impressive, the precise mechanisms by which exposure operates remain unclear. Learning theorists stress habituation of classically-conditioned fear responses, whereas cognitive theorists stress the modification of internal fear structures. Some data even suggest that the effects of exposure are mediated by expectancies. Southworth and Kirsch (1988) randomly divided agoraphobic patients into two exposure conditions: one defined as "treatment" and the other as "assessment." Subjects in both groups were given 10 identical *in vivo* exposure sessions. Subjects provided with therapeutic expectancies demonstrated greater and more rapid improvement than those in the assessment expectancy condition. These results once again highlight the importance of promoting optimistic therapeutic expectancies even when conducting well-established treatments.

A common theme of all exposure-based treatments is the importance of addressing the natural tendency to avoid distressing material. In fact, the newest forms of CBT highlight emotional avoidance as the key feature underlying much psychopathology (e.g., Hayes, Strosahl, & Wilson, 1999). Similarly, recent interest in incorporating principles derived from Buddhism into psychotherapy illustrates an emerging recognition of the importance of directly facing one's pain and the damaging effects of avoidance (Campos, 2002; Kumar, 2002).

The past decade has witnessed the rapid growth of so-called "power" therapies, which claim to offer unprecedented results in terms of both speed and efficacy for the treatment of PTSD and related conditions. By far the most popular of these innovative therapies is Eye Movement Desensitization and Reprocessing (EMDR; Shapiro, 2001). Essentially, EMDR involves imaginal exposure exercises combined with bilateral stimulation, typically achieved by having the patient visually track the therapist's finger back and forth across his or her field of vision. A review of this controversial treatment is beyond the scope of this chapter; interested readers are referred to recent reviews by Davidson & Parker, 2001; Devilly, 2002b; Herbert et al., 2000; and McNally, 1999. These reviews of EMDR have consistently reached two general conclusions: (1) the technique is no more effective than standard exposure-based treatments, and perhaps even less so in the long term; and (2) the distinctive feature of EMDR-eye movements or other bilateral stimulation-are superfluous to its effects. That is, dismantling studies that compare the EMDR program sans eye movements to the full EMDR protocol consistently reveal no differences in efficacy. Thus, EMDR's effectiveness appears to lie in the so-called nonspecific effects common to most psychotherapies (e.g., positive expectations for improvement) combined with imaginal exposure. There is no need for unnecessary rituals such as inducing eye movements in patients, and no support for unwarranted claims of unique efficacy.

Finally, there is no evidence that traditional forms of psychotherapy such as supportive counseling or psychoanalytic psychotherapy are helpful for patients with chronic post-traumatic symptoms. Many psychoanalytic and "power" therapies share the idea that memories of traumatic experiences are often dissociated or repressed, and must be "recovered"

and "worked through" in order to promote healing. Aside from the dubious scientific status of "recovered" traumatic memories (McNally, 2003b), this model can contribute to patient pessimism since there can always be more material to uncover, leading to a potentially never-ending process.

EMERGING GUIDELINES FOR TREATING POSTTRAUMA REACTIONS

The history of efforts to treat the aftermath of trauma, together with recent research findings, suggest four emergent principles or guidelines that are important in the treatment of the sequelae of trauma.

THE IMPORTANCE OF EXPECTANCIES

The first area of concern is the critical role of expectations as related to the nature of PTSD and the likely course of this condition. The current conceptualization of PTSD and its treatment tends to contribute to pessimistic expectations about prognosis, at least without intensive treatment efforts. A diagnosis of PTSD results in the pathologizing of reactions to adversity, and suggests that intervention efforts should focus on emotional abreaction related to the traumatic event. Biological psychiatrists attempt to legitimize PTSD as a "real" medical condition by searching for biological markers associated with the condition. The range of conditions that qualify as traumatic keeps growing (McNally, 2003a), as do estimates of the number of people likely to experience pathological reactions to such traumatic events (e.g., McDonald, 2003). These diagnostic practices and views on adversity conspire to create an expectation among clinicians that even relatively common traumatic events produce quasi-permanent pathological symptoms mediated by scarring of the brain, which result in severe and lasting impairments in functioning. Moreover, the current Zeitgeist of therapeutic positivism neglects the therapist's critical role in passing such expectations to the patient. Well-intentioned intervention efforts within this therapeutic framework may contribute to a victim mentality that undercuts coping efforts and contributes to increased suffering. A growing body of evidence supports this concern. For example, certain forms of psychological debriefing in the immediate aftermath of trauma are not only ineffective, but actually lead to increased symptoms (Gist & Devilly, 2002; Kenardy, 2000; Rose, Bisson, & Wessley, 2001; Van Emmerik, Kamphuis, Hulsbosch, & Emmelkamp, 2002). Although the mechanism through which such effects occur is unclear, we speculate that an important factor involves the communication of pathological expectations. This is ironic since normalization of reactions to trauma is one of the stated goals of debriefing. Nevertheless, by emphasizing the need for specialized intervention by a mental health professional, the procedure may communicate a contrary message.

The extensive military experience previously discussed suggests an alternative: Intervention efforts should seek to normalize reactions to trauma and to foster expectations that the individual will be able to cope effectively without elaborate intervention. This perspective is further supported by recent research finding surprisingly good long-term functioning in most individuals exposed to trauma. For example, in one of the very few long-term prospective studies of a whole cohort born on Kauai, Hawaii, the dominant

finding was one of resilience in people exposed to various emotional traumas (Werner & Smith, 1982, 1992). Similarly, in a comprehensive meta-analysis of studies on the long-term effects of childhood sexual abuse, Rind, Tromovitch, and Bauserman (1998) found that the vast majority of victimized individuals went on to lead normal, productive lives, with little evidence of long-term psychological damage. Finally, Schlenger et al. (2002) assessed symptoms of psychological distress in a representative sample of 2,273 Americans following the terrorist attacks on New York City and Washington, DC, on September 11, 2001. By four to eight weeks following the attacks, Schlenger et al. found that "overall distress levels in the country were within normal ranges" (2002, p. 581). Given appropriate expectations and sufficient support, people are surprisingly resilient in the face of adversity.

Also following from past military experience is the need to avoid social and economic incentives that serve to maintain disability. For example, ongoing pensions contingent upon continuing psychiatric impairment serve as powerful incentives for extended disability (McNally, 2003b). Appreciation of this point suggests specific strategies to promote positive expectancies for healing. First, programs that provide monetary compensation contingent on ongoing symptoms and/or disability, such as the present pension program of the US Veteran's Administration, should be restructured. As early as the 1890s German physicians recognized the dangers inherent in such programs, which were banned between the two world wars. This is not to suggest that soldiers should not be compensated for their disability. Rather, the argument is for rapid provision of a single lump sum payment. Likewise, efforts should be made to speed up litigation that encourages or even depends upon maintenance of symptoms. The litigant has obvious incentives to convince others of his or her suffering. Winning the case often assumes moral characteristics, such that legal victory represents a sort of vindication over the trauma itself (Herman, 1992). Once again, this system stands in the way of recovery.

SHORT-TERM COPING AND CARING FOR BASIC NEEDS

The second principle is the importance of fostering short-term coping in the immediate aftermath of adversity. Effective coping in this phase depends on two general factors: (1) validation of the individual's suffering as real and painful, on the one hand, yet normal and temporary on the other; and (2) short-term interventions aimed at meeting basic biological needs, including shelter, food, and sleep (Gist & Lubin, 1999). It is completely normal to experience a variety of symptoms immediately following an adverse or traumatic event, and human societies have developed various rituals to acknowledge many of these events (e.g., funerals following the death of a loved one), and to assist with coping in their immediate aftermath (e.g., neighbors helping each other by rebuilding homes or providing food following natural disasters). As much as possible, persons who experience a traumatic event should be encouraged to participate in such rituals in the context of their particular culture. For example, police and firefighters often witness horrific events. The relatively "machismo" culture of these professions emphasizes private support among trusted colleagues rather than emotional discussions with mental health professionals. Clinicians must appreciate the typical ways of acknowledging loss and distress in an individual's culture, rather than insisting on a monolithic formula inspired by theories of psychotherapy.

PROVISION OF EXPOSURE-BASED THERAPIES WHEN INDICATED

The third principle derived from our review concerns the pernicious effects of avoidance, and its treatment with exposure-based psychotherapies when indicated. Historical military experience and recent studies on the effects of trauma reveal that whereas most individuals return to premorbid levels of functioning relatively quickly without specialized intervention, some develop persistent symptoms and impairments in functioning. Although the expectation of rapid normalization following a recuperative period should be the rule, tracking mechanisms must be established to identify those individuals who may require further intervention.

Devilly (2002a) highlights the importance of providing professional services only to those who actually request them, and who also present clinically significant symptoms. These recommendations stand in contrast to debriefing programs, in which services are typically provided regardless of symptom status and the individual's desire to participate. Although Devilly's recommendations are generally sound, they beg the question of exactly what constitutes "clinically significant symptoms." As discussed above, most persons who experience a traumatic event will experience some short-term distress and impairment in daily activities. It is in this context that the clinician must balance the potential dangers of unnecessary intervention, on the one hand, with the possibility of effective early intervention using state-of-the-art empirically supported methods, on the other. To date, little research outside of debriefing has compared different interventions against nointervention conditions for persons displaying varying degrees of symptoms in the immediate aftermath of trauma. Although the research by Foa and colleagues and Bryant and colleagues reviewed above offers some preliminary suggestions, the question of when the magnitude and duration of symptoms warrant psychotherapeutic intervention awaits further research.

When professional intervention is provided, it should of course be based on methods with the most scientific support. As noted above, CBT programs, particularly those incorporating exposure, are currently the most empirically supported treatments for individuals who experience persistent symptoms following a traumatic event. To be maximally effective, such treatments should be conducted within the context of strong expectations for improvement. Furthermore, exposure should be carefully titrated to confront the individual with previously avoided material, while simultaneously encouraging specific activities consistent with healthy functioning.

COGNITIVE REFRAMING

The fourth and final principle to emerge from our review is the importance of cognitive framing that fosters moving forward with life. This entails moving as quickly as possible beyond the trauma as the central focus of one's life, to resuming other roles and activities. The lack of effectiveness of both traditional psychotherapy and psychological debriefing for post-traumatic symptoms may be related in part to perverse social incentives that serve to maintain suffering and disability. Ongoing attention and help from both professionals and even loved ones can backfire, leading to the development of a self-identity centered on being a victim of trauma. In this context, prolonged psychotherapy focused on the trauma should be abandoned, except perhaps in the most treatment-refractory cases. Even in such cases, the emphasis should be on enhancing

coping strategies and decreasing avoidance rather than on "working through" the trauma *per se*. Instead, routine psychotherapy should be limited to brief interventions for individuals with persistent and distressing symptoms. Long-term psychotherapy fixes and maintains the trauma as the central focus of the individual's life. History cannot be relived; one can only accept the past, including distressing or traumatic past experiences, and commit to moving forward. In addition to fostering the enhancement of specific coping skills, the creative psychotherapist can help the sufferer construct a narrative that puts the trauma in perspective in such a way that encourages moving forward with living a meaningful life.

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STT11 5/24/04 02:43 PM Page 231

EMERGING GUIDELINES FOR TREATMENT

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