9 Evidence-Based Practice With Victims of Violence and Terrorism

With the threat of domestic and international terrorism increasing in America since the 1995 Oklahoma City bombing of a federal building and the September 11, 2001, terrorist attacks on the World Trade Centers and the Pentagon (hereafter referred to as 9/11), a condition related to reliving the trauma known as posttraumatic stress disorder (PTSD) has increasingly been thought to be a leading physical and emotional by-product of random violence. This chapter defines PTSD, shows its relationship to acts of violence, and discusses the primary treatment approaches demonstrating best evidence in working with those who develop PTSD symptoms following a serious trauma.

Unquestionably, there are many acts of random violence that affect Americans, including assaults, rapes, muggings, carjackings, and gang violence. Natural and man-made disasters also account for a certain amount of PTSD, but not in the numbers attributable to acts of random violence. Although disasters and other forms of violence are mentioned in this chapter, the primary emphasis of the chapter is on understanding the dynamics of PTSD, the probability of developing PTSD symptoms, the populations most at risk, and the most effective treatment approaches. Not everyone who experiences an act of violence develops PTSD, and the research on resilience may offer us direction in understanding why some people develop PTSD and others do not.

Understanding the Link Between Trauma and the Development of Posttraumatic Stress Disorder

DESCRIPTIONS OF PTSD

According to the DSM-IV (APA, 1994), the core criteria for PTSD include distressing symptoms of (a) reexperiencing a trauma through

nightmares and intrusive thoughts; (b) numbing by avoiding reminders of the trauma, or feeling aloof or unable to express loving feelings for others; and (c) persistent symptoms of arousal as indicated by two or more of the following: sleep problems, irritability and angry outbursts, difficulty concentrating, hypervigilance, and exaggerated startle response with a duration of more than a month, causing problems at work, in social interactions, and in other important areas of life (APA, 1994, pp. 427–429). The DSM-IV judges the condition to be acute if it has lasted less than 3 months and chronic if it has lasted more than 3 months. It is also possible for the symptoms to be delayed. The DSM-IV notes that a diagnosis of delayed onset is given when symptoms begin to appear 6 months or more after the original trauma (APA, 1994, p. 429).

PTSD is thought to be linked to a highly traumatic experience or life-threatening event that produces intrusive thoughts related to a very disturbing aspect of the original traumatic event. Those thoughts are difficult to dislodge once they reach conscious awareness. In many cases of PTSD, the client physically and emotionally reexperiences the original traumatic event and is frequently in a highly agitated state of arousal as a result. Symptoms of PTSD usually begin within 3 months of the original trauma. In half of the cases of PTSD, complete recovery occurs within 3 months of the onset of symptoms, but many cases last more than 12 months (APA, 1994, p. 426). Ozer, Best, Lipsey, and Weiss (2003) describe the following symptoms associated with returning Vietnam veterans that led to a recognition of PTSD as a distinct diagnostic category: "Intrusive thoughts and images, nightmares, social withdrawal, numbed feelings, hypervigilance, and even frank paranoia, especially regarding the government, and vivid dissociative phenomena, such as flashbacks" (p. 54). The authors believe that the complexity of the symptoms often led to a misdiagnosis of schizophrenia.

Stein (2002) indicates that an additional symptom of PTSD is physical pain and writes, "Patients with PTSD are among the highest users of medical services in primary care settings. Ongoing chronic pain may serve as a constant reminder of the trauma that perpetuates its remembrance" (p. 922). In describing the aftermath of the 1981 Hyatt Regency disaster in Kansas City, where catwalks over a lobby used as a dance floor collapsed, killing more than 150 people and injuring many hundreds more, I (Glicken, 1986a, 1986b, 1986c) noted that many of the hotel employees who witnessed the disaster or helped in the recovery of injured victims suffered flu-like symptoms and a significant lethargy for many months after the disaster. I also reported that, while many of the employees complained of depression and lethargy, a large number felt actual physical illness and some experienced anxiety attacks that led to emergency hospital visits for perceived symptoms of heart problems, including heart palpations, severe night sweats, nausea, and arm and back pain.

Asmundson, Coons, Taylor, and Katz (2002) report that patients with PTSD present a combination of physical and mental health problems

including increased alcohol consumption and depression. They also indicate that pain is one of the most commonly reported symptoms of patients with PTSD and write, "Patients who have persistent, chronic pain associated with musculoskeletal injury, serious burn injuries, and other pathologies (such as fibromyalgia, cancer, or AIDS) frequently present with symptoms of PTSD" (p. 930). In a study by White (1989), 20% of military veterans with PTSD developed chronic pain. McFarlane, Atchison, Rafalowicz, and Papay (1994) found that volunteer firemen who developed PTSD in response to acts of terrorism and violence developed a significant amount of pain, primarily back pain, as compared to 21% of those without symptoms of PTSD.

Cohen (1998) discusses the problem of using PTSD as a diagnosis for children and adolescents. Some PTSD symptoms, such as dissociation, self-injurious behaviors, substance abuse, and/or conduct problems, may obscure the original trauma and clinicians may miss the existence of PTSD. Children going through abrupt changes in development may demonstrate some of the signs of PTSD. Cohen urges clinicians to do a careful job of history taking to avoid overlooking the presence of a PTSD. To meet the criteria for a diagnosis of PTSD, the child must first have been exposed to an extremely traumatic event, which results in reexperiencing the event, avoidance and numbing, and increased arousal when memories of the event are triggered. Cohen (1998) suggests that reexperiencing the trauma may be demonstrated through repetitive play with traumatic themes, recurrent upsetting dreams about the trauma, and intense anxiety when conscious and unconscious cues remind the child of the trauma. Avoidance and numbing may be observed in children withdrawing from their usual activities and who also use techniques to avoid thinking about the trauma that may, in time, become obsessive. This may also be true of children who have a complete loss of memory about the event or seem detached and lack future thinking. Persistent symptoms of increased arousal, if they are to be considered part of the response to PTSD, must be newly observed symptoms that may include sleep problems, irritability or angry outbursts, difficulty concentrating, hypervigilance, and exaggerated startle response. Symptoms must be present for at least 1 month and cause clinically significant distress or impairment in normal functioning to be assigned a diagnosis of PTSD.

Cohen (1998) indicates that experts agree that children should be asked about the traumatic event. Clinicians often fail to ask children about the event and its impact because they fear that reminding the child of painful events may trigger anxiety, or they may not want to become involved in disturbing discussions that may change the child's memory of the event. In situations that involve litigation, a discussion of the precipitating event may confuse the child's memory and could result in liability concerns about the clinician's role in the child's confusion. Cohen believes that we often miss important evidence of the presence of PTSD. "There is a strong

clinical consensus that if children are not asked, they are less likely to tell about their PTSD symptoms" (p. 998). Cohen believes that several semi-structured interviews are necessary to discover traumatic events in a child's life and suggests that clinicians pay close attention to the criteria for PTSD when they collect information from the interviews.

Gist and Devilly (2002) worry that PTSD is being predicted on such a wide scale for every tragedy that occurs that we've watered down its usefulness as a diagnostic category and write, "Progressive dilution of both stressor and duration criteria has so broadened application that it can now prove difficult to diagnostically differentiate those who have personally endured stark and prolonged threats from those who have merely heard upsetting reports of calamities striking others" (p. 741). The authors suggest that many early signs of PTSD are normal responses to stress that are often overcome with time and distance from the event. Victims often use natural healing processes to cope with traumatic events, and interference by professionals in natural healing could make the problem more severe and prolonged. In determining whether PTSD will actually develop, people must be given time to cope with the trauma on their own before clinicians diagnose and treat PTSD. To emphasize this point, Gist and Devilly (2002) report that the immediate predictions of PTSD in victims of the World Trade Center bombings turned out to be almost 70% higher than actually occurred 4 months after the event. Susser, Herman, and Aaron (2002) report that 2,001 New Yorkers were interviewed by telephone between January 15, 2002, and February 21, 2002. The interview indicated that within 4–5 months of the World Trade Center bombings, most subjects had experienced a significant decrease in stress-related symptoms initially associated with the bombings. Susser et al. write, "Many affected New Yorkers are clearly recovering naturally, a tribute to the resilience of the human psyche" (p. 76). Of course, symptoms of PTSD may develop much later than 4–5 months after a trauma. Still, the point is well taken. People often heal on their own, and a premature diagnosis of PTSD may be counterproductive.

The Potential for Developing PTSD

In describing the potential for developing PTSD, the DSM-IV (APA, 1994) reports, "The severity, duration and proximity of an individual's exposure to the traumatic event are the most important factors affecting the likelihood of this disorder" (p. 426). According to the DSM-IV, additional factors that may contribute to PTSD include the absence of social support networks, traumatic family histories or childhood experiences, and preexisting emotional problems, although people without preexisting problems can develop PTSD if the stressors of the traumatic experience are particularly severe.

There may be other factors determining whether PTSD develops following a trauma. McGaugh and Cahill (1997) found that memory formation during a traumatic event can be blocked, resulting in a reduction of the likelihood of PTSD. If this is the case, the authors wonder if we can predict who will be most likely to experience PTSD by evaluating the clarity and preciseness of the memory of the trauma. However, a review of studies determining the impact of traumatic experiences reported in the *Harvard Mental Health Letter* ("What Causes Post-Traumatic Stress Disorder: Two Views," 2002) suggests that "the people most likely to have symptoms of PTSD were those who suffered job loss, broken personal relationships, the death or illness of a family member or close friend, or financial loss as a result of the disaster itself" (p. 8). Several additional studies reported in the *Harvard Mental Health Letter* indicate that a person's current emotional state may influence the way they cope with the trauma. Environmental concerns (living in high-crime areas, for example) and health risks (disabilities that make people vulnerable, as another example) raise the likelihood of repeated traumatization that may increase the probability of developing PTSD. Stein (2002) suggests that one significant event influencing the development of PTSD is exposure to assaultive traumatic events such as serious fights, domestic violence, child abuse, muggings, sexual trauma, and other forms of traumatic violence. Stein believes that vulnerability to repetitive acts of violence greatly increases the probability of developing PTSD.

Asmundson, Coons, Taylor, and Katz (2002) observed that 70% of a sample of clients with pain who coped dysfunctionally (overly medicated themselves and/or had high numbers of doctor's visits) also met the diagnostic criteria for PTSD as compared with 35% of the sample who coped with pain in a functionally adaptive way. There is evidence to suggest that high sensitivity to anxiety in the midst of a traumatic event increases levels of fear, which may result in panic attacks and the increased likelihood of developing pain and related medical problems (Taylor, 1999, 2000). Elevated levels of anxiety during the traumatic event may be the primary factor in the development of chronic pain (Taylor, 2000), leading Asmundson et al. (2002) to conclude the following:

> When people with high anxiety sensitivity levels encounter a traumatic stressor, painful physical injury, or both, they are believed to respond with a more intense emotional reaction than do those with lower levels. In the case of PTSD, the degree of alarm caused by the stressor itself combined with alarm related to the anxiety sensations arising from the stressor amplifies the emotional reaction and thereby increases the risk of developing PTSD. (p. 933)

In studies of women who have been sexually assaulted or raped, women particularly at risk of developing PTSD are those who were injured in the

assault, were threatened by the perpetrator with death or injury if they reported the rape, had a history of prior assault, or experienced negative interactions with family, peers, or law enforcement officers after the assault (Regehr, Cadell, & Jansen, 1999). In a meta-analysis of the many factors that may predict the development of PTSD after a traumatic event, Ozer et al. (2003) found the following factors to be related to the development of PTSD: (a) a history of prior trauma, (b) psychological problems before the traumatic event, (c) psychopathology in the family of origin, (d) the degree to which the client thought the traumatic event would endanger his or her life, (e) the lack of a support system to help the client cope with the trauma, (f) the degree of emotional response during and after the trauma, and (g) evidence of a dissociative state during and after the trauma. The authors found that each of these variables helped explain, to some extent, how well the client could cope with the trauma and whether PTSD would develop. When trying to use individual variables to predict PTSD, however, no single variable was predictive of the onset of PTSD. Instead of the variables noted above, the authors believe that the degree of client resilience is the best predictor of whether PTSD will develop. Highly resilient people seem to have lower incidents of PTSD following a trauma. The authors also suggest that clients who develop PTSD may be analogous to those developing the flu and write, "It is tempting to make an analogy to the flu or infectious disease: Those whose immune systems are compromised are at greater risk of contracting a subsequent illness" (Ozer et al., p. 69).

RESILIENCE AND PTSD

In considering the importance of resilience as an explanation for coping successfully with traumatic events, Henry (1999) defines resilience as "the capacity for successful adaptation, positive functioning, or competence despite high risk, chronic stress, or prolonged or severe trauma" (p. 521). Abrams (2001) indicates that resilience may be seen as the ability to readily recover from illness, depression, and adversity. Walsh (1998) defines resilience in families as the "capacity to rebound from adversity, strengthened and more resourceful" (p. 4) and continues in her definition by saying, "We cope with crisis and adversity by making meaning of our experience: linking it to our social world, to our cultural and religious beliefs, to our multigenerational past, and to our hopes and dreams for the future" (p. 45).

Werner and Smith (1982) identified protective factors that tend to counteract the risk for stress, which include (a) genetic factors such as an easygoing disposition, (b) strong self-esteem and a sense of identity, (c) intelligence, (d) physical attractiveness, and (e) supportive caregivers.

Seligman (1992) believes that resilience exists when people are optimistic, have a sense of adventure, courage, and self-understanding, use humor in their lives, have a capacity for hard work, and posses the ability to cope with and find outlets for their emotions. In their 32-year longitudinal study, Werner and Smith (1982) found strong relationships among problem-solving abilities, communication skills, and an internal locus of control in resilient children. In a review of the factors associated with resilience and stressful life events, Tiet, Bird, and Davies (1998) found that higher IQs, higher quality of parenting, positive connections to other competent adults, an internal locus of control, and well developed social skills were protective factors that allowed children to cope with stressful events. Protective factors, according to Tiet et al., are primary buffers between the traumatic event and the child's response.

The Prevalence of PTSD

The National Vietnam Veterans Readjustment Study (Kulka et al., 1990; Weiss et al., 1992) estimated that 9% of the men and 26% of the women serving in Vietnam met the diagnostic criteria for PTSD at some point after their Vietnam service. Current prevalence of PTSD among Vietnam veterans is 2% for men and 5% for women (Schlenger et al., 1992). Weiss et al. (1992) estimated that roughly 830,000 Vietnam theater veterans continued to experience significant posttraumatic distress or impairment approximately 20 years after their exposure to one or more traumatic stressors. Studies of civilian populations have found lifetime PTSD prevalence rates of between 2% and 10% (Breslau, Davis, Andreski, & Peterson, 1991). The National Comorbidity Study (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995) found that women had twice the lifetime prevalence of PTSD than that of men (10.4% for women versus 5.0% for men). Roughly 50%–60% of the U.S. population is exposed to traumatic stress, but only 5%–10% develop PTSD (Ozer et al., 2003). In studies of women who had been sexually assaulted or raped, a significant proportion of women experienced symptoms of PTSD within 2 weeks following the assault (Resnick, Acierno, Holmes, Kilpatrick, & Jager, 1999). PTSD continued to persist in survivors of rape and sexual assault at lifetime rates of between 30% and 50% (Foa, Hearst-Ikeda, & Perry, 1995; Meadows & Foa, 1998; Resnick et al., 1999).

The *Harvard Mental Health Letter* ("What Causes Post-Traumatic Stress Disorder: Two Views," 2002) reports on a study done at the University of California, San Diego, in which 132 randomly selected patients seen by family doctors completed an interview and questionnaire describing traumatic events in their lives, including combat, natural or

man-made disasters, violent rape, abusive behavior, and assault. Almost 70% of the sample had experienced at least one traumatic event. Twenty percent of the sample currently had PTSD, 29% had major depressions, and 8% had both. PTSD was most likely to occur in those patients who had experienced several types of traumas, particularly those who had been assaulted. Seventy percent of the patients with current or lifetime PTSD said an assault was their worst traumatic experience.

The Impact of Recent Acts of Terrorism

Susser et al. (2002) attempted to estimate the emotional impact of the 9/11 terrorist events. The authors used three main sources: (a) current literature on disaster research, including more than 200 articles published between 1981 and 2001 concerned with the psychological consequences of 160 natural and man-made disasters affecting 60,000 people worldwide; (b) psychological reactions of the general public in the area near the Oklahoma City bombing of 1995; and (c) two quickly conducted studies in New York City examining the short-term impact of the World Trade Center attacks (Galea, 2002).

From data extrapolated by Galea (2002) in 1,008 telephone interviews with Manhattan residents, the rate of PTSD in those living close to the World Trade Center was 20%. Sprang (Galea, 2002) found that 7.8% of 145 city residents in Oklahoma City who were not near the building after the bombing had PTSD, and North (Galea, 2002) found PTSD in 34% of 182 survivors who had been in or near the building. Using statistical analysis to estimate the number of New Yorkers traumatized by the World Trade Center bombings, Susser et al. (2002) write, "The bottom line: even when making the most conservative estimates based on available data, we concluded that a minimum of approximately 422,000 New Yorkers experienced PTSD as a result of September 11" (p. 73). It should be noted that Galea (2002) only reported on PTSD and clinical depression and not on related clinical conditions including anxiety and low-level depression. Untold millions who witnessed the attacks through the media were surely shaken and experienced distress. Susser et al. (2002) go on to say, "In addition, the effects of terrorism on those already suffering from psychological conditions must be assumed to have been especially profound" (p. 74).

To add to the impact of 9/11, Hoff (2002) reports a survey of 8,266 public school students in New York City regarding their reactions to the New York City attacks. The data indicate that 10.5% of the city's 710,000 public school students experienced PTSD as a result of 9/11. Hoff also notes that the survey found high numbers of other disorders related to the bombings, including agoraphobia, the fear of open places.

Case Study: Adapting to a Terrorist Attack

Carol Schuster is a Jewish communal worker in a large Midwestern city. As the workday was ending for Carol, a man entered the Jewish agency Carol worked for and held Carol hostage for the next 2 days. He had guns and knives that he frequently pressed against Carol's body while he told her that he would kill her as retribution for an act by the Israeli Army against the village where the man's family lived, which resulted in the death of his entire family. Carol is a social worker and tried to use her skills as a therapist to calm the man down, but as the two-day siege continued, the man became increasingly agitated and violent. At one point, he beat Carol with his hands, breaking her jaw and badly cutting her face. He made her look at pictures of his family while they were alive and then at pictures of his family after their deaths. He spoke in English and another language Carol could not identify, crying and screaming at her in alternate outbursts. As the second day wore on and the police were unable to capture the man for fear that he would kill Carol, he finally gave up and Carol was released. When the man came out of the agency, the police thought he had a weapon with him, fired at him, and killed him. Carol witnessed the event.

At first, Carol seemed perfectly fine, even amazingly so given what had happened to her. She went back to work the next day and assured everyone that she was fine and happy to be back. The staff wasn't so sure and wondered if PTSD symptoms might develop, but for months Carol seemed to be asymptomatic for PTSD and no one in the agency detected any unusual signs of stress. In the privacy of her home, however, Carol was deteriorating emotionally. She was fearful of going out at night and she was afraid of falling asleep for fear that a friend of her captor would break into her house and kill her. She was also self-medicating by using Ativan she'd obtained from a friend, and she was drinking large amounts of wine, something she'd hardly ever used before the event. She was irritable and frightened. At work, her defenses began to break down and the signs of PTSD, while very slow to develop publicly, showed themselves in severe mood swings, an inability to handle many routine assignments, and a tendency to hide in her office if she saw anyone resembling the man who held her hostage.

Her supervisor told Carol that she needed to seek help, and Carol was seen over a 6-month period by a therapist who used a combination of cognitive therapy and exposure therapy in which she was asked to talk about the event so that its emotional power would begin to weaken. Carol is a strong, resilient young woman, and within 2 months of treatment, her symptoms were in remission sufficiently for her to return to full-time work at the agency. She still has frightened feelings and sometimes can't sleep. At times, she is afraid to leave the house and periodically self-medicates with liquor and tranquilizers. A year after the event, she is back to 90% of her pre-event functioning and doing better every day.

CRITIQUE

Carol had the type of life-threatening event that often leads to PTSD. The private deterioration in her functioning, unnoticed at work for many months, seems related to an inner toughness that Carol used to keep her private torment from others. This is typical of many survivors of violent acts. Some victims of violence don't develop PTSD at all, but Carol did. It's difficult to know why without more history, but one wonders if Carol had a prior traumatic event. As her therapy progressed, it was discovered that a stranger sexually molested Carol as a child, an event she kept completely to herself. The experience was responsible for her choosing to become a social worker. Carol also had family issues and grew up with two very troubled parents whom she cared for throughout her early life. Carol was the codependent child of parents who cycled from alcoholism and job loss to early institutionalization. She felt responsible for what happened to her family and vowed to learn more about people so that she could prevent something similar from happening to her. The tough and resilient outer shell was a façade for a troubled and hurt inner self that felt ill equipped to deal with life. As she had done as a child, she put all of her energies into helping others and was considered a highly sensitive and effective social worker. In her personal life, however, she lacked a support group, had no romantic involvements, had few close friends, and even before the event had begun self-medicating for sleep problems and anxiety. What she also had was a great deal of self-awareness and inner toughness that delayed the public expression of her emotional state but also helped in her recovery.

In many ways, Carol is in a much better place emotionally after the event than before. She has joined a support group for survivors of violence, has developed several good friendships, and has begun to see a young man who works at her agency with whom she feels a closeness she has never experienced before. "I'm still frightened," she says, "and I fall apart every once in a while, but in many ways, I'm better than before this happened. And I feel great empathy for the man who held me hostage. We Jews need to understand that some people have grievances against us. Rather than calling it anti-Semitism, we need to be more open to listening and understanding with our hearts. I've joined a group of Jews and Palestinians who dialogue every week about our mutual problems. I think the openness of our conversation is very healing for both sides. The group has helped diffuse some problems between the two communities, which is a hopeful and empowering sign. We're all Americans. We live in this wonderful land in harmony. Maybe our example will help resolve problems in Israel. That idea is very strong inside of me and helps on those days that aren't so good, when some of the anxiety and stress come back. And I think I had an exceptional therapist. He enlisted my help in finding out what we should do together. He asked me to look at the

research literature and to help in the treatment plan. We both agreed that cognitive therapy with desensitization that allowed me to reduce my level of anxiety was the best treatment option, coupled with work on my ongoing problems with intimacy. He listened to me, consulted with me, and treated me like a professional. I felt that we were working together and that I was treated like a competent adult. I think the way he deferred to me and respected my ideas helped more than anything else. He also had a knack for reminding me about my positive behaviors, something I was all too ready to forget. I was at a point where I didn't believe I knew anything, and I was falling apart. It was really pretty scary. His encouragement and willingness to involve me was such a wonderful gift at a time when my self-esteem was very low, that I could have just hugged him for treating me so well.

"Am I cured? No. I have problems to resolve that predate those awful two days. Most of the time I'm fine, better than fine, really. I no longer think I'm responsible for everyone and I'm taking better care of myself. It's made me a much better social worker and a much healthier person. I'm optimistic about the future, but a little part of me will never be as trusting or feel as safe. I think I'll always live in a state of hypervigilance, and from the clients I work with who are survivors of terrorism, I know that you fight the feeling of being afraid all the time. So I won't say I'm cured, but I'm a lot better and I'm optimistic. And that's a long way from where I was during, after, and even before this happened to me."

Best Evidence of Effective Treatment for PTSD

EXPOSURE THERAPY

Rothbaum, Olasov, and Schwartz (2002) describe a type of treatment, based on emotional-processing theory, that believes PTSD develops as a result of memories eliciting fear that trigger escape and avoidance behaviors. Since the development of a *fear network* (the set of stimuli that activate a fear response) functions as a type of obsessive condition, the client continues to increase the number of stimuli that serve to increase his or her fear. To reduce the number of stimuli that elicit fear, the client must have his or her fear network activated so that new information can be provided that rationally contradicts the obsessive network of emotions reinforcing the PTSD symptoms. The authors believe that the following progression of treatment activities serves to reduce the client's fear network:

1. Repeated reliving of the original trauma helps to reduce anxiety and correct a belief that anxiety will necessarily continue unless avoidance and escape mechanisms are activated.

2. Discussing the traumatic event reduces negative reinforcement of the event and helps the client see it in a logical way that corrects misperceptions of the event.
3. Speaking about the trauma helps the client realize that it's not dangerous to remember the trauma.
4. The ability of the client to speak about the trauma provides the client with a sense of mastery over his or her PTSD symptoms.

The authors call this type of treatment "exposure therapy." Several types of exposure therapies show promise in the treatment of PTSD. Stress inoculation therapy is an approach that includes relaxation, cognitive restructuring, preparing for a stressor, thought stopping, covert modeling, and role playing. Cognitive-processing therapy provides traditional cognitive therapy and exposure in the form of writing and reading about the traumatic event (Resick, 1992; Resick & Schnicke, 1992, 1993). In cognitive-processing therapy, ideas and perceptions about the traumatic event are challenged and more accurate and logical perceptions are encouraged. Additionally, clients are encouraged to write about their traumas and read them aloud to therapists. The repetition of writing and reading about the trauma tends to reduce its emotional impact on the client and hopefully leads to a lessening of symptoms through an understanding of the "sticking" points that may serve to reinforce anxiety. Hensley (2002) provides an explanation of exposure therapy as it might be given to a client who has been raped:

> 1. Memories, people, places, and activities now associated with the rape make you highly anxious, so you avoid them.
>
> 2. Each time you avoid them you do not finish the process of digesting the painful experience, and so it returns in the form of nightmares, flashbacks, and intrusive thoughts.
>
> 3. You can begin to digest the experience by gradually exposing yourself to the rape in your imagination and by holding the memory without pushing it away.
>
> 4. You will also practice facing those activities, places, and situations that currently evoke fear.
>
> 5. Eventually, you will be able to think about the rape and resume your normal activities without experiencing intense fear. (p. 338)

In describing a typical application of exposure therapy in a number of the studies reviewed with positive results, Rothbaum et al. (2002) note the following:

1. Prolonged exposure treatment averaged about nine bi-weekly individual sessions.

2. The first two sessions were spent gathering information, explaining the rationale of treatment, and constructing a rank order of feared situations for exposure in treatment.

3. In the remaining sessions, clients were asked to relive and describe the traumatic experience as if the client was having the experience "right now."

4. Exposure went on for about 60 minutes each session.

5. Tape recordings were made of the sessions and clients were asked to listen to the taped sessions as a form of reinforcement.

6. Clients were given homework assignments that helped them safely approach situations that caused anxiety and fear.

7. Clinicians can find precise instructions for doing exposure therapy with PTSD clients in Foa and Rothbaum (1998). (p. 63)

Effectiveness studies in the current literature regarding the use of exposure therapy with symptoms of PTSD have been quite positive. In the annual review of important findings in psychology, 12 studies found positive results using exposure therapy with PTSD. Eight of these studies received special recognition for the quality of their methodologies and for the positive nature of their outcomes (Foa and Meadows, 1997). Several of the studies were done with Vietnam veterans and showed a significant reduction in the symptoms of PTSD following exposure therapy (Keane, Fairbank, Caddell, & Zimering, 1989). The same positive results were found in studies with rape victims when exposure therapy was used (Foa et al., 1999; Foa, Rothbaum, Riggs, & Murdock, 1991). Exposure therapy has been used with a variety of PTSD victims, including victims of combat traumas, sexual assaults, child abuse, and other forms of violence. Exposure therapy has the most consistently positive results in reducing symptoms of PTSD when compared to other forms of treatment (Rothbaum, Meadows, Resick, & Foy, 2000).

Exposure therapy was compared to cognitive restructuring (Deblinger, McLeer, & Henry, 1990; Foa et al., 1995). Both types of treatment were considered highly effective, but exposure therapy alone was more effective than cognitive restructuring. Better than 50% of the clients receiving exposure therapy achieved over a 70% improvement in PTSD symptoms after nine sessions, while clients receiving cognitive restructuring alone needed an additional three sessions to achieve the same results. Rothbaum et al. (2000) report that, in the past 15–20 years, exposure therapy has been used with a variety of patients experiencing a number of traumatic events leading to symptoms of PTSD. Rothbaum et al. (2002) write, "Exposure therapy has more empirical evidence for its

efficacy than any other treatment developed for the treatment of trauma-related symptoms" (p. 65).

DEBRIEFING

A form of treatment with potential for use in work with PTSD victims following a tragedy such as 9/11 is a single session treatment, or what has also been called "debriefing." In this approach, clients who have experienced a trauma are seen in a group session lasting 1–3 hours within a week to a month of the original traumatic event. Risk factors are evaluated and a combination of information and opportunities are provided to discuss their experiences during and after the trauma (Bisson, McFarlane, & Rose, 2000). Most debriefing groups use crisis intervention techniques in a very abbreviated form and may provide educational information to group members about typical reactions to traumas, what to look for if group members experience any of these symptoms, and where to seek professional assistance if additional help is needed. Debriefing groups may also attempt to identify group members at risk of developing PTSD (van Emmerik, Kamphuis, Hulsbosch, & Emmelkamp, 2002).

Despite the considerable appeal of this approach, there is little evidence that debriefing works to reduce the number of people who experience PTSD following debriefing sessions, and some evidence that it may increase PTSD, compared with other forms of treatment (van Emmerik et al., 2002). Debriefing may be less effective than no treatment at all following a trauma (van Emmerik et al.). Gist and Devilly (2002) support these findings and write that "immediate debriefing has yielded null or paradoxical outcomes" (p. 742) because the approaches used in debriefing are often those "kinds of practical help learned better from grandmothers than from graduate training" (p. 742). The authors report that, while still high, the estimates of PTSD after the 9/11 attacks dropped by almost two thirds within 4 months of the tragedy and conclude, "These findings underscore the counterproductive nature of offering a prophylaxis with no demonstrable effect, but demonstrated potential to complicate natural resolution, in a population in which limited case-conversion can be anticipated, strong natural supports exist, and spontaneous resolution is prevalent" (p. 742).

There are several primary reasons for the lack of effectiveness of debriefing:

1. Debriefing interferes with natural healing processes and sometimes results in bypassing usual support systems such as family, friends, and religious groups (Horowitz, 1976).

2. Upon hearing that PTSD symptoms are normal reactions to trauma, some victims of trauma actually develop the symptoms as a result of the suggestions provided in the debriefing session, particularly when

the victim hasn't had time to process the various feelings he or she may have about the trauma (Kramer & Rosenthal, 1998).

3. Clients seen in debriefing include both those at risk and those not at risk. Better results may be obtained by screening clients at risk through a review of past exposures to traumas that may have served as catalysts for the current development of PTSD (Brewin, Andrews, & Valentine, 2000).

COMBINATIONS OF THERAPY

Resick, Nishith, Weaver, Astin, and Feuer (2002) tested two forms of cognitive therapy with women who had been sexually assaulted by using a waiting list of women as a control group. Women in the control group were told that they would need to wait at least 6 weeks for treatment, but they were contacted every 2 weeks to make certain they didn't need emergency help. Women on the waiting list were encouraged to call if they needed help and a therapist, using a nondirective approach, would provide telephone counseling. If frequent calls indicated an inability to cope with stress or suicidal thoughts, the person was terminated from the study and offered immediate help, although the researchers report that this never happened in the study. The researchers found that cognitive therapy using exposure techniques was very successful in treating PTSD in this sample and that the success of this approach would bode well for PTSD caused by traumas other than sexual assault and rape. Many of the women in the study who showed marked improvement had histories of other traumas and were considered to be chronically distressed. Therapy was equally effective for traumas as recent as 3 months ago and for prior traumas as long ago as 30 years. In contrast, the women on the waiting list did not improve at all.

Lee, Gavriel, Drummond, Richards, and Greenwald (2002) tested the effectiveness of stress inoculation training with prolonged exposure (SITPE) as compared to eye movement desensitization and reprocessing (EMDR). The authors report that 24 participants with PTSD were randomly assigned to one of the two treatment approaches. Outcome measures included self-reports by subjects, ratings by observers, and self-reported measures of depression. There was no significant difference in the improvement rate for the two therapies at the end of treatment. On the degree of intrusive symptoms, however, EMDR did much better than SITPE, and at follow-up, EMDR produced greater gain in lessening all symptoms of PTSD (Lee et al., 2002, p. 1071).

In the treatment of PTSD with children and adolescents, Cohen (1998) reports only limited evidence of the effectiveness of psychotherapy; however, she refers to three recent studies that provide empirical support for the use of cognitive-behavioral therapy in treating children with PTSD. Although there are little data to guide clinicians in their work with children

and adolescents with PTSD, Cohen suggests that the primary treatment components that seem to work well with children are "direct exploration of the trauma, use of specific stress management techniques, exploration and correction of inaccurate attributions regarding the trauma, and inclusion of parents in treatment" (p. 999). Parents can benefit from education regarding the child's PTSD symptoms and by learning how they might help in managing them.

The Recovery Process

In describing the recovery process of women who had experienced sexual assaults and rape, Hensley (2002) indicates that, even though treatment research suggests good results, the recovery process can be long and difficult. "Survivors are vulnerable to victim-blame, self-blame, unwillingness to disclose the rape to others, and an overall lack of support in addition to PTSD symptoms and other significant negative psychological and physiological outcomes" (p. 342). Hensley reports that women who survive sexual assaults need validation for their experiences and positive reinforcement for their attempts to deal with the traumas they've experienced. Instead, they must often deal with limited support and even skepticism from family, friends, professionals, and from the legal system. This concern about the limited support of PTSD victims as they try to recover from the traumas they've experienced can be generalized to many other victims of traumas. Ozer et al. (2003) report that in the early and mid-1970s, Vietnam veterans with PTSD were receiving diagnoses of schizophrenia at Veterans Hospital psychiatric units, even though similar problems of PTSD had been seen in World War II and among Korean War veterans. Horowitz and Solomon (1975) predicted large-scale, stress-related problems in veterans returning home after the war, a view that was skeptically received but that turned out to be all too true. Consequently, we have begun to believe that inadequate support and validation may prolong symptoms of PTSD.

In writing about treatment and recovery myths of PTSD, Rothbaum et al. (2002) believe that many people think that clients suffering from PTSD will recover in time without help; however, prolonged suffering suggests that this may not be the case, and interventions should be introduced when client symptoms are intrusive and the client voluntarily seeks help. The authors also note that a trauma need not be current for the client to require help with recovery. Many clients who have experienced child abuse and other early life traumas benefit from therapies such as exposure therapy by focusing on their worst memory of a trauma. Reducing stress involved with that memory has carry-over benefits to other traumas. The authors report that exposure therapies are often useful in treating non-PTSD symptoms that predate the traumatic event causing PTSD, and help

to provide a more complete recovery. Exposure therapies help reduce "feelings of depression, rage, sadness, and guilt [in addition] to reducing related problems, such as depression and self-blame" (Rothbaum & Schwartz, 2002, p. 71). Many of these symptoms may predate the trauma, and their removal can effectively speed up the rate of recovery.

SUMMARY

This chapter on PTSD includes the symptoms, prevalence, and best evidence of treatment effectiveness. Data from two recent terrorist attacks in the United States are also included. Assaults are one of the primary reasons for the development of symptoms of PTSD. Data from studies on a form of brief therapy known as *debriefing* suggest that its use following a trauma may actually increase the probability that PTSD symptoms will develop. A case study is provided showing the impact of a terrorist attack and an effective form of treatment. The presence of resilience is thought to be one of the primary reasons some people cope well with severe traumas. A form of therapy known as *exposure therapy* seems to provide benefit to many people suffering from PTSD.

Integrative Questions

1. Why would so many people who were not directly affected by a terrorist attack develop symptoms of PTSD? The Oklahoma City and World Trade Center attacks are examples.

2. Talking about a trauma until it no longer creates anxiety seems an inefficient way to treat PTSD. Can you think of other "common sense" approaches that may lessen symptoms of PTSD more quickly?

3. Don't you think we make too much out of stressful life experiences in the United States? Many people in other countries suffer from devastating natural disasters, hunger, and malnutrition and seem to cope well. Isn't there a point at which the culture encourages people to experience PTSD because it believes that most people are too emotionally fragile to cope with extreme stressors?

4. During 9/11, American television focused on the bravery of countless men and women. Do you think this helped reduce the impact of the tragedy on many people with potential for developing symptoms of PTSD?

5. The notion that debriefing may actually lead to an increase in PTSD seems entirely wrongheaded. Can you give some examples of the positive impact of debriefing in cases of trauma?

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