Chapter

REVISED TRAUMA THEORY: UNDERSTANDING THE TRAUMATIC NATURE OF SEXUAL ASSAULT
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INTRODUCTION
Sexual assault has immediate and long-term consequences that can be devastating for the physical, emotional, and relational health of the victim. This chapter addresses the current understanding of how exposure to the overwhelming stress of assault alters the psychobiology, personal adjustment, and systems of meaning for the victim. In addition, the consequences of these changes on physical health, mental health, social adjustment, revictimization, and ability to parent are outlined.

In the last three decades a large body of evidence-based knowledge has accumulated about the effects of overwhelming stress. Trauma theory represents a comprehensive biopsychosocial and philosophic model for understanding these effects. As understanding grows about the complex nature and impact of overwhelming experiences, the trauma of sexual assault is recognized as having an effect on every level of a person's adjustment. Posttraumatic stress disorder (PTSD) is a chronic and often disabling condition, and the prevalence of PTSD after rape is extraordinarily high. Even in the most conservative study, those with PTSD were two to four times more likely than those without PTSD to have other psychiatric disorders, particularly depression and somatization. Rape victims are far more likely to make suicide attempts and to develop substance abuse problems.

Evidence is accumulating about the nature and extent of psychobiologic changes secondary to sexual assault. The results of a growing body of studies on the physiologic effects of stress are disturbing, making clear that children's psychobiologic development and adult function can be profoundly affected by sexual assault. Victims of sexual abuse and assault often suffer from a multitude of physical disorders not directly related to whatever injuries they have suffered as a result of the assault. Compounding the problem is the reality of revictimization. One of the many horrors attending sexual assault is the tendency of victims to experience more than one sexual assault experience. Child sexual abuse survivors appear to be particularly vulnerable to revictimization experiences.

A victim is both helpless and powerless, and human beings generally choose to do anything to avoid feeling powerless. Consequently, a possible outcome for a person who has been victimized is to identify with the power of the perpetrator and to become someone who terrorizes and abuses others. Clear evidence shows that victimizers are more likely to have been victimized as children than people who do not victimize others.

A pernicious aspect of violence is its multigenerational impact. That violence in one generation often leads to violence in the next is now supported by considerable evidence. Parenting behavior can be profoundly affected by the impact of trauma.
The total estimated cost for child rape and other sexual abuse has been estimated to be $23 billion in lost productivity (Miller et al., 1993). The problem of sexual assault is so great and affects so many children and adults that there are not, nor will there ever be, enough mental health workers to address the sheer volume of people suffering from the multiplicity of problems secondary to exposure to violence. Therefore medical and social institutions must find ways to address the problem by creating environments that promote and sustain better physical, emotional, and relational health.

**Trauma Theory: Understanding the Impact of Sexual Assault**

Until the 1970s when US servicemen returned from Vietnam and began sharing the overwhelming nature of their combat experiences and US women gathered in consciousness-raising groups to begin sharing their experiences of sexual assault, incest, and domestic violence, relatively little was known about the impact or the traumatic experience on the body, mind, social adjustment, and life philosophy of the victim. In the last three decades a large body of evidence-based knowledge has accumulated about the effects of overwhelming stress. Trauma theory represents a comprehensive biopsychosocial and philosophic model for understanding these effects. It also helps to understand how victims’ bodies and minds respond normally to abnormal events and then become stuck as a “state becomes a trait.”

**Psychologic Trauma Defined**

To understand what trauma does, we must first understand what we mean by “trauma.” There is much controversy over how we even define what a traumatic event is. The first studies of trauma survivors derived from work with disaster victims, combat veterans, and Holocaust survivors. In such cases the traumatic events are usually well defined and represent experiences of terror, exposure to atrocities, or the fear of imminent death. In fact, to obtain a formal diagnosis of “posttraumatic stress disorder” according to the DSM-IV, the victim must have experienced, witnessed, or been confronted with an event or events that involved actual or threatened death or serious injury, or threat to physical integrity of self or others (American Psychiatric Association [APA], 1994).

This certainly describes the situation of many victims of sexual assault, particularly stranger rape. However, child victims of sexual abuse and many victims of intimate partner rape are not in imminent fear of loss of life or even physical integrity. Yet sexual abuse and non–life-threatening rape are some of the most traumatizing of experiences. How can we explain this well-established clinical finding? The answer lies in the complexity of the interaction of the victim and the traumatic event.

According to Lenore Terr (1990), a child psychiatrist who did the first longitudinal study of traumatized children, “psychic trauma occurs when a sudden, unexpected, overwhelming intense emotional blow or a series of blows assaults the person from outside. Traumatic events are external, but they quickly become incorporated into the mind” (p. 8).

Complicating the question further, events occurring during and subsequent to the traumatic event can make a profound difference in how the victim experiences and interprets that event. The manner in which the victim’s body and mind responded at the time of the trauma, and how his or her social support network reacted during and after the event play important roles in determining the ultimate outcome. It is also necessary to understand how the victim comprehends and interprets the events. An adolescent may be greatly relieved to be left alone in the house for a weekend, whereas a small child may experience the same event as overwhelmingly terrifying. Children lack the resources to cope with even minor threats and experience a threat to people they are attached to as a threat to themselves. Van der Kolk (1989) makes this point about the complicated nature of trauma when he writes, “Traumatization
occurs when both internal and external resources are inadequate to cope with external threat” (p. 393). It is not only the trauma itself that does damage to the victim: it is also how the individual’s mind and body react to the traumatic experience combined with the unique response of the individual’s social group.

**Heredity’s Legacy: The Autonomic Nervous System**

A traumatic experience affects the entire person. The way we think, the way we learn, the way we remember things, the way we feel about ourselves, the way we feel about other people, and the way we make sense of the world are all profoundly altered by traumatic experience. All of these factors are rooted in the human experience.

Unlike other mammals, humans come into the world ill prepared to battle with natural enemies. Helpless for a prolonged period after birth, humans have few natural defenses. Like all mammals, humans are equipped to respond to emergencies with a “fight-or-flight” reaction via the autonomic nervous system. This state of extreme hyperarousal serves a protective function during an emergency, preparing the individual to respond automatically and aggressively to a perceived threat, preferentially steering toward action and away from the time-consuming effort of thought and language. However, prolonged hyperarousal leaves people physically and emotionally exhausted, burdened with hair-trigger tempers, irritable, and tending to perpetuate violence.

To protect against helplessness, humans developed a network of attachment relationships, living in extended kinship groups. The human capacity to manage overwhelming emotional states is shaped by experience with early childhood attachments and is maintained throughout life through attachment relationships. This development of extended social networks increases the likelihood that vulnerable offspring will be protected.

**Heredity Off-Track**

Although the fight-or-flight state of physiologic hyperarousal serves a vital survival purpose in times of danger, when hyperarousal stops being a state and turns into a trait, human beings lose their capacity to accurately assess and predict danger. A consequence may be avoidance and reenactment instead of adaptation and survival (Perry & Pate, 1993). The human need to rescue ourselves from this untenable physiologic state means that humans desperately seek to calm themselves down. If relief is not available from our fellow humans, people may turn to substances or behaviors that bring relief.

Very complex brains and powerful memories distinguish humans as extremely intelligent. Yet this very intelligence creates a vulnerability to the effects of trauma, such as flashbacks, body memories, posttraumatic nightmares, and behavioral reenactments. The dependence on language is also a critical factor. Experiences that took place before the age of language acquisition cannot be integrated into consciousness and a coherent sense of identity. Instead, the individual becomes haunted by an unresolved, and even unknown, past.

Traumatic experience disrupts attachment to the extent that the social world has failed to serve its protective function for the individual. Humans are particularly ill-suited to having the people to whom they are attached also be the people doing the violating. Emotions firmly secure individuals to one another, but trauma profoundly disrupts the ability to manage emotional experience. People lose the capacity to respond to situations with the appropriate emotion in appropriate measure and tend to overreact to events that should not provoke and underreact to events that should receive a more meaningful response. Any impaired ability to respond with the appropriate emotional signal impairs the capacity to create and maintain healthy relationships.
Finally, humans are physiologically designed to function best as an integrated whole. Our sense of wholeness and integrity emerges through meaningful experiences, values, beliefs, identity, and wisdom. The fragmentation that accompanies traumatic experience degrades this integration and impedes maximum performance in various ways. Human brains function best when they are adequately stimulated and simultaneously protected from overwhelming stress. This explains the need for order, for safety, and for adequate protection. Without this balance between stimulation and soothing, humans cannot reason properly or make sense out of what has happened. Humans are meaning-making animals, requiring the capacity to make sense of experiences, to order chaos, and to structure reality. Traumatic experience destroys the sense of meaning and therefore purpose. Individuals deteriorate into a repetitive cycle of reenactment, stagnation, and despair.

The Fight-or-Flight Response
The manifestation of the autonomic nervous system's response to stress is the fight-or-flight reaction. This massive response effects change in physiologic function that is so dramatic that in many ways, people are not the same when they are terrified as when they are calm. Attention becomes riveted on the potential threat, so the capacity for reasoning and exercising judgment is negatively influenced by the rising anxiety and fear.

People become less attentive to words and far more focused on threat-related signals in the environment—all of the nonverbal content of communication. As fear rises, they may lose language functions altogether, possibly mediated by the effect of rising levels of cortisol on the language centers of the brain (Van der Kolk, 1996a). Without language, people can take in vital information only in nonverbal form—through physical, emotional, and sensory experiences. As the level of arousal increases, "dissociation" may be triggered as an adaptive response to the hyperarousal, physiologically lowering heart rate and reducing anxiety and pain (Perry, 2001).

Each episode of danger connects to every other episode of danger in the human mind, so that the greater the danger exposure, the greater the sensitivity to danger. With each experience of fight-or-flight, the mind forms a network of connections triggered by every new threatening experience. When exposed to danger repeatedly, people become unusually sensitive, so that even minor threats can trigger an involuntary sequence of physical, emotional, and cognitive responses.

Childhood exposure to trauma, particularly repetitive exposure to interpersonal violence such as sexual assault, has even more dire consequences than adult exposure to a traumatic event for the first time. The expression of corticotropin-releasing factor (CRF), particularly during critical and sensitive moments in development, may have such a profound impact on the developing brain that the brain organizes itself around the traumatic event. Traumatized children are known to develop persistent physiologic hyperarousal and hyperactivity with increased muscle tone, increased startle response, profound sleep disturbances, affect regulation problems, and anxiety, all related to a use-dependent organization of brain stem nuclei involved in the stress response apparatus (Berry, 2000).

LEARNED HELPLESSNESS
Helplessness is a hallmark of a traumatic experience. If the factor of helplessness is removed, the context is changed, and a person may experience the same event as enjoyable or at least worthwhile. Consider the differences between being assaulted by a stranger in an alley and suffering the same injuries as a quarterback being bowled over by a player from the opposing team. If a person is able to master a situation of danger by successfully running away, winning the fight, or getting help, the experience of helplessness is also minimized. Conversely, repetitive exposure to helplessness is so toxic to emotional and physiologic stability that in the service of continued survival, persons are compelled to adapt to the helplessness itself, a phenomenon termed "learned helplessness."
Once an animal has learned to be helpless, it is likely that it will stay put, even when the opportunity for escape is clearly visible. For these animals, survival is now associated with staying where they are, behaviorally expressing the human sentiment of “things could always be worse.” Change occurs only when there is active intervention that pulls the animal out of its cage. At first, the animal runs back in, having “learned to be helpless,” but after sufficient trials, it finally catches on and relaens—or remembers—how to escape from the still-present danger. It is likely that the rehearsals of escape behavior also alter the animal’s biochemistry so that change becomes possible. Although much of the maladaptive social behavior is reversed, these animals remain vulnerable to subsequent stress. As in human experience, animals show individual variation in their responses. Some animals are very resistant to developing “learned helplessness,” while others are very vulnerable (Seligman, 1992).

People can learn to be helpless, too, and if people are subjected to a sufficient number of experiences teaching them that nothing they do will affect the outcome, they will then give up trying. This is an adaptive response, serving to conserve vital resources and buffering the vulnerable central nervous system against the negative impact of constant overstimulation. However, once the mechanism of learned helplessness is in place, it does not automatically reverse when escape becomes possible. Children who are repeatedly sexually assaulted learn that there is nothing they can do to adequately protect themselves or escape the situation and that, therefore, their only form of escape is within their own minds—a powerful incentive for dissociation. Later, even when escape is possible, their formerly adaptive response of coping can create a serious obstacle to positive change and may contribute to the dynamic of revictimization. Adults in situations of domestic violence may be exposed repetitively to marital rape and experience the same sense of helpless adaptation. Persons exposed to other forms of sexual assault may also freeze up and be unable to protect themselves when similar triggering circumstances are presented. In such ways, a formerly adaptive coping skill turns into a maladaptive syndrome.

**THINKING UNDER STRESS—ACTION, NOT THOUGHT**

The capacity to think clearly is severely impaired when individuals are under extreme stress. When danger is perceived, humans are physiologically geared to take action, not to deliberate and weigh alternative choices or to consider the potential outcome of actions. It is more important to respond almost reflexively to preserve life or to protect loved ones. When stressed, humans cannot think clearly, nor can they consider the long-range consequences of behavior. It is impossible to weigh all of the possible options before making a decision or to take the time to obtain all the necessary information that goes into making good decisions. Decisions tend to be based on impulse and on an experienced need to self-protect. As a consequence, such decisions are inflexible, oversimplified, directed toward action, and often very poorly constructed (Janis, 1982). It is not uncommon in such situations to see people demonstrate poor judgment and poor impulse control, which may even lead to violence. Many victims of repetitive exposure to violence have long-term problems with various aspects of thinking. An intolerance of mistakes, denial of personal difficulties, and anger as a problem-solving strategy are some of the problematic thought patterns that have been identified (Alford et al., 1988).

After prolonged exposure to stress, the brain can “reset” itself, and people may experience a state of chronic hyperarousal. In this state they may perceive danger everywhere, even when there is no real danger, because their bodies are signaling the arousal response automatically. As a result, their ability to think clearly and rationally can be chronically and erratically impaired. If this happens in childhood, children’s capacities to study, to pay attention in the classroom, and to achieve academically may be severely compromised.
REMEMBERING UNDER STRESS
Exposure to trauma alters people's memory, producing extremes of remembering too much and recalling too little. Unlike other memories, traumatic memories appear to become etched in the mind, unaltered by the passage of time or by subsequent experience. In the last few years, a great deal of debate in the popular and academic press has occurred about whether or not people can "forget" traumatic events and then "remember" them years later, and about whether or not it is possible to "plant" false memories into someone's mind (Bowman, 1996a, 1996b; Brown et al., 1998; International Society of Traumatic Stress Studies [ISTSS], 1998). Much of the confusion about the topic springs from a fundamental ignorance or misunderstanding about the fact that there are several kinds of memory and that overwhelming stress affects the memory system in a way that other experiences do not (Armony & LeDoux, 1997; Cahill, 1997; McEwen & Magarinos, 1997; McNally, 1997; Roozendaal et al., 1997; Spiegel, 1997; Wolfe & Schlesinger, 1997).

Recent studies have demonstrated how dramatically traumatic experiences affect the brain. MRI studies of Vietnam veterans have demonstrated changes in right hippocampal volume in those with PTSD as compared to those without PTSD (Bremner et al., 1994). Other neuroimaging studies have shown similar alterations in women with PTSD who have experienced repeated childhood sexual abuse (Stein et al., 1997). Considerable research has supported the hypothesis that catecholamines influence memory storage processes: low doses of catecholamines enhance memory, while high doses impair memory (Cahill, 1997). The impact of stress hormones has been demonstrated in the amygdala, especially the right amygdala, indicating the importance of this structure in regulating memory storage, particularly for emotionally arousing events (Roozendaal et al., 1997). The hippocampal formation, so important to the human memory apparatus, appears to be particularly vulnerable to insults such as the effects of stress (McEwen & Magarinos, 1997). Data indicate the atrophic changes in the brain, particularly the hippocampus, appear to result from elevated glucocorticoid (such as cortisol) levels.

The result of all this is that the way of remembering things, processing new memories, and accessing old memories is radically changed when under stress. A growing body of evidence indicates that there are actually two different memory systems in the brain—one for verbal learning and remembering that is based on words, and another that is largely nonverbal (Van der Kolk, 1996b). The "normal" memory is the memory system based on language. Under normal conditions, the two kinds of memory function in an integrated way. Our verbal and nonverbal memories are thus usually intertwined and complexly interrelated. However, under conditions of extreme stress, our memory works in a different way.

The human verbally based memory system is particularly vulnerable to high levels of stress. When a person is overwhelmed with fear, he loses the capacity for speech and the capacity to put words to the experience, an occurrence commonly known as "speechless terror." According to recent studies, the part or parts of the brain involved in categorizing and retrieving information are compromised (Van der Kolk et al., 1997). Without words, the mind shifts to a mode of thinking characterized by visual, auditory, olfactory, and kinesthetic images; physical sensations; and strong feelings. This system of processing information is adequate under conditions of serious danger. It is a more rapid method for assimilating information, and by quickly providing data about the circumstances surrounding the danger and making rapid comparisons to previous experience, people may have a vastly increased possibility of survival in the face of threat.

However, the powerful images, feelings, and sensations do not just "go away" once the danger has passed. They are deeply imprinted, more strongly, in fact, than normal, everyday memories. The neuroscientist Joseph LeDoux has called this
“emotional memory” and has shown that this kind of memory can be difficult or impossible to erase, although one can learn to override some responses (LeDoux, 1994). Many researchers studying various survivor groups have noted this “engraving” of trauma (Van der Kolk, 1996b). Problems may arise later because the memory of the events that occurred under severe stress is not put into words and is not remembered in the normal way. The normal integration between verbal and nonverbal experiences does not occur. Instead, the nonverbal memories remain “frozen in time” in the form of images, body sensations like smells, touch, tastes, facial expressions, voice tones, physical pain, and strong emotions.

A flashback is a sudden, intrusive re-experiencing of a fragment of one of those traumatic, unverbalized memories. Flashbacks are likely to occur when people are stressed or frightened, or when triggered by any association to the traumatic event. Their minds can become flooded with the images, emotions, and physical sensations associated with the original trauma. They feel like the traumatic experience is happening again, and they may have difficulty separating the past from the present. Often they do not recognize the experience they are having as a flashback but instead feel that they are “losing their minds” or having a “panic attack.”

Trauma may result in “speechless terror,” and the capacity to encode information in language is radically altered. As a result, the victim has developed what has become known as “amnesia” for the traumatic event—the memory is there, but there are no words attached to it, so it cannot be either talked about or even thought about. Instead, the memory presents itself as some form of flashback, nonverbal behavior, or a behavioral reenactment of a previous event. Even thinking of flashbacks as “memories” is inaccurate and misleading. When someone experiences a flashback, he does not remember the experience, but relives it. Often the flashback is forgotten as quickly as it happens because the two memory systems are so disconnected from each other.

Many times, the flashback occurs in the form of a physical symptom that is a reminder of the previous assault, as when a rape victim experiences sharp and penetrating pelvic pain that can then become a chronic pelvic pain syndrome. Symptoms such as these have come to be known as “body memories.” Physical symptoms are not likely to be recognized by either the sufferer or health care professionals as related to a previous traumatic event. The physical symptom is experienced separated from any other reminders of the traumatic event, so the victim does not connect the pain in the present with the terrifying experience of the past. Her health care provider, lacking historical information, is not likely to consider this as a possibility in the differential diagnosis. This nonverbal memory may be the only memory a person has of the traumatic event, or at least of certain key portions of the event. She is likely to reject any interpretation of her physical symptoms as being related to a past trauma, in part because she hears such an explanation as a minimization of her pain, as if she were being told it is “all in her head,” and in part because she is continuing to unconsciously protect herself against being flooded by the feelings connected to the past trauma.

Over time, as people try to limit situations that promote hyperarousal and flashbacks, limit relationships that trigger emotions, and employ behaviors designed to control emotional responses, they may become progressively numb to all emotions and feel depressed and alienated. In this state, it takes greater and greater stimulation to feel a sense of being alive. They will often engage in all kinds of risk-taking behaviors because that is the only way they feel “inside” themselves once again. If an experience cannot be remembered, one cannot learn from it. This is one of the most devastating aspects of prolonged stress.

The picture becomes even more complicated for children who are exposed to repeated experiences of unprotected stress. Their bodies, brains, and minds are still
developing. We are only beginning to understand memory, traumatic memory, and how these memory systems develop and influence each other (Perry, 1993; Schwarz & Perry, 1994). Children who are traumatized also experience flashbacks that have no words. For healing to occur, people often need to put the experience into a narrative, give it words, and share it with themselves and others. Words allow one to put things into a time sequence—past, present, future, which finally allows a flashback to become a true memory instead of a haunting presence. Because a child’s capacity for verbalization is just developing, his ability to put the traumatic experience into words is particularly difficult. In cases of childhood terror, language functions are often compromised. Instead, children frequently act out their memories in behavior instead of words (James, 1994). They show what happened even when they cannot tell. This automatic behavioral reliving of trauma is called “traumatic reenactment.”

EMOTIONS AND TRAUMA—DISSOCIATION

Emotions can kill. It is possible to die of fright or to die of a broken heart. Every vital organ system is closely connected through the autonomic nervous system with the emotions. However, people rarely die from emotional upsets. A fundamental reason for such rarity is the built-in “safety valve” called “dissociation.”

Dissociation is defined as “a disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment” (APA, 1994). Dissociation provides a real advantage—it allows one to do more than one thing at a time. People can go on autopilot and automatically complete tasks previously learned well while being focused on something else.

Traumatized people make special use of this capacity as a way of buffering the central nervous system against life-threatening shock. Human beings can dissociate in a number of different ways.

One way to dissociate is so common that almost everyone does it—splitting off experience from feelings about that experience. So commonly do humans cut off feelings about what happened to them while still remembering facts about the event that it may not even be noticed that they do not feel the emotions that would normally be expected under the circumstances. In such cases, instead of seeing the emotional numbing that has occurred to the person, comments are made about “how well Jane is coping with her loss” or “how extraordinary it is that John never seems to get ruffled, even if someone is yelling at him.” But Jane and John are not necessarily “coping well.” They may be dissociated from their feelings, and their capacity for normal emotional interaction may be consequently diminished.

It is possible to cut off all emotions, but that usually happens only in extreme cases of repetitive and almost unendurable trauma, and is known as “emotional numbing.” More commonly, people cut off or diminish specific emotional responses, based on the danger the emotion may present to continued functioning. Children experiencing trauma learn how to not feel; they learn to dissociate their emotions from their conscious experience and their nonverbal expression of that emotion. In doing so, they believe they can stay safer than if they show what they feel. That does not mean the emotion actually goes away. It does not.

As this process continues over time, the individual may increasingly shut off normal responses and dampen any emotional experience that could lead back to the traumatic memory. People may withdraw from relationships that could trigger memories, or curtail sensory and physical experiences that could remind them of the trauma. At the same time, the individual may be unconsciously compelled to reenact the traumatic experience through certain behavior. Such reenactment increases the likelihood that instead of managing to avoid repeated trauma, the person is likely to become revictimized.

Key Points:
In dissociation, people are able to function automatically while being focused on something completely different. When a person has experienced trauma, dissociation allows him to buffer the central nervous system against life-threatening shock.
As this process unfolds, the person is likely to become increasingly depressed. These avoidance symptoms, along with the intrusive symptoms such as flashbacks and nightmares, comprise two of the interacting and escalating aspects of PTSD set in the context of a more generalized physical hyperarousal. As these alternating symptoms come to dominate traumatized people’s lives, they feel increasingly alienated from everything that gives their lives meaning—favorite activities, other people, a sense of direction and purpose, a sense of spirituality, a sense of community. It is not surprising that, for some people, slow self-destruction through addictions or fast self-destruction through suicide is often the final outcome of these syndromes. For other people, rage at others comes to dominate the picture, and these people are the ones who end up becoming significant threats to other people as well as to themselves.

For children who are traumatized, the responses to and consequences of trauma are amplified because the traumatic experiences interfere with the processes of normal development. For many children, in fact, traumatic experience becomes the norm rather than the exception, and they fail to develop a concept of what is normal or healthy. They do not learn how to think in a careful, quiet, and deliberate way. They do not learn how to have mutual, compassionate, and satisfying relationships. It should come as no surprise that these children often become maladjusted troublemakers who pose problems for teachers, schools, other children, and ultimately everyone.

**Endorphins and Stress—Addiction to Trauma**

The secretion of endorphins is an important part of the stress response. Endorphins provide relief from anxiety and distress. Both adults and children are elevated when social support is increased and lowered when social support is withdrawn. Not only do endorphins calm anxiety, improve mood, and decrease aggression, but they also are analgesics, chemically related to morphine and heroin. People who are exposed to repeated experiences of prolonged stress experience repeatedly high levels of circulating endorphins and are likely to develop what has been termed “stress-induced analgesia” (Glover, 1992). One hypothesis is that people can become “addicted” to their own internal endorphins and as a result only feel calm when they are under stress. When stress is relieved, they experience a withdrawal effect that leads to fearfulness, irritability, hyperarousal, and even violence, much like someone who is withdrawing from heroin (Ibarra et al., 1994; Volpicelli et al., 1999). This has been called “addiction to trauma” (Van der Kolk & Greenberg, 1987).

This makes clear several perplexing symptoms. For example, stress-addicted children are likely to be those who cannot tolerate a calm atmosphere but must keep antagonizing everyone else until the stress level is high enough for them to achieve some degree of internal equilibrium again. These are children who as adults are unable to trust or be comforted by other people—in fact, other people have been the fundamental source of their distress. Instead, these children must fall back on whatever resources they can muster within themselves, resources that they can control, to achieve any kind of equilibrium. As adults, under stress, people who have been brutalized as children may again resort to behaviors that help induce some kind of alteration in the opioid system. These behaviors can include self-mutilation, risk-taking behavior, compulsive sexuality, involvement in violent activity, bingeing and purging, and drug addiction.

Violence is exciting and stressful. Repeated violent acting-out, gang behavior, fighting, bullying, and many forms of criminal activity have the additional side effect of producing high levels of stress in people who have grown addicted to such risk-taking behavior. This also helps to explain self-mutilation in its many forms. People who self-mutilate have learned that inflicting harm on the body will induce the release of endorphins that will provide some relief, at least temporarily (McCown et al., 1993).
TRAUMA-BONDING

Trauma-bonding refers to a relationship based on terror and the distortion of normal attachment behavior into something perverse and cruel (James, 1994). People who are terrorized, whether as adult or child victims of abuse, experience their abuser as being in total control of their lives and death. The perpetrator is the source not only of the pain and terror, but also of relief from that pain. He is the source of threat, but he is also the source of hope. Cognitively, the victim may want nothing more than to have a healthy relationship, but outside of conscious, cognitive awareness, what the victim has learned is how to relate to the perpetrator without being killed. This nonverbal awareness often determines who the person is chosen by or chooses to relate to, based on a need to repeat early childhood attachment behavior, even as adults. For victims of repetitive abuse, abusive relationships become the normative idea of what relationships are all about.

TRAUMATIC REENACTMENT

History repeats itself. People who have been traumatized develop what may begin as life-saving coping mechanisms, but these very mechanisms may lead to compulsive repetition. People often reenact what they cannot remember. People may cue each other to play roles in personal dramas, secretly hoping that someone will offer a different script, a different outcome to the drama, depending on how damaging the experiences have been. The only way that the nonverbal brain can "speak" is through behaviors. Traumatized people, through reenactment, are trying to repeatedly "tell their story" in very overt or highly disguised ways. They may use the language of physical symptoms or of deviant behavior.

Traumatized people are cut off from language, deprived of the power of words that gives meaning to their overwhelming experiences, trapped in speechless terror. Victims need the help, the words, the signals of caring others, but they must find some way to signal others about their distress in a language that has no words. Unfortunately, most of these "cries for help" fall on deaf ears. Instead, without hearing the meaning in the message, people judge, condemn, exclude, and alienate the person who is behaving in a self-destructive or antisocial way. The end result of this complex sequence of posttraumatic events is repetition, stagnation, rigidity, and a fear of change, all in the context of a deteriorating life. As emotional, physical, and social symptoms of distress pile up on each other, victims try desperately to extricate themselves by using the same protective devices that they used to cope with threat in the first place—dissociation, avoidance, aggression, destructive attachments, damaging behaviors, and substance addiction.

THE CONSEQUENCES OF TRAUMATIC EXPERIENCE

Children who are sexually assaulted demonstrate a number of adjustment problems (Berliner & Elliott, 1996). Sexually abused children are more likely to have sexual behaviors that pose problems for them at home and at school and that may lead to perpetrator behavior directed at other children (Hall et al., 1998). Children who have been both physically and sexually abused appear to be at highest risk of psychiatric disturbance, including PTSD, major depression, dysthymia, suicidality, self-mutilation, somatic complaints, poor self-esteem, anxiety disorders, sleep disturbances, substance abuse disorders, learning disabilities, conduct disorders, delinquency, aggression, increased health risk behaviors, and inappropriate sexual behavior (Ackerman et al., 1998; De Bellis et al., 1994).

As traumatized children make the transition into adolescence, adjustment problems continue. A community sample of 1490 adolescents, age 12 to 19 years was analyzed to investigate the relationship between a history of sexual abuse and adolescent functioning. Both sexually abused girls and boys reported significantly more emotional problems, behavior problems, and suicidal thoughts and attempts than their nonabused counterparts. The results also indicated that the experience of
sexual abuse carried far more consequences for boys than for girls with regard to the use of drugs and alcohol, aggressive/criminal behavior, truancy, and suicidal thoughts and behavior. Whereas 2.6% of the nonabused boys reported a former suicide attempt, the percentage of the sexually abused boys reporting a suicide attempt was 13 times higher (Garnefski & Arends, 1998).

Posttraumatic Stress Disorder
The prevalence of PTSD after rape is extraordinarily high. In a review of nine studies that investigated the prevalence of PTSD among victims of rape or other sexual violence, four studies indicated that the rate was greater than 70% (De Girolamo & McFarlane, 1996). The National Women's Study produced dramatic evidence of the mental health impact of rape by determining comparative rates of several mental health problems among rape victims and women who had never been victims of rape (Kilpatrick et al., 1992). Rape victims were three times more likely than women who had never been victims of crime to have ever had a major depressive episode and were 3.5 times more likely to be currently experiencing a major depressive episode. Rape victims were 4.1 times more likely to have contemplated suicide and 13 times more likely than people who were not rape victims to have actually made a suicide attempt. The fact that 13% of all rape victims had actually attempted suicide confirms the devastating and potentially life-threatening mental health impact of rape.

In a survey of over 2000 women asked about victimization experiences, rates of “nervous breakdowns,” suicidal ideation, and suicide attempts were significantly higher for crime victims than for nonvictims. Victims of attempted rape, completed rape, and attempted sexual molestation had problems more frequently than did victims of attempted robbery, completed robbery, aggravated assault, or completed molestation. In this study, nearly one rape victim in five (19.2%) had attempted suicide, whereas only 2.2% of nonvictims had done so (Kessler et al., 1995). Most sexual assault victims’ mental health problems came after their victimization (Kilpatrick et al., 1985).

There is a disturbingly high rate of comorbidity with PTSD, further complicating recovery for many survivors of sexual assault. Even in the most conservative study, those with PTSD were two to four times more likely than those without PTSD to have another psychiatric disorder, particularly somatization disorder (Solomon & Davidson, 1997). According to one study, somatization was found to be 90 times more likely in those with PTSD than in those without PTSD (Davidson et al., 1991).

In another study, people with one or more symptoms of PTSD were more likely than those without any mental disorder to experience poor social support, marital difficulties, and occupational problems, as well as greater impairment of income and more disability measures than even those with major depressive disorder. The people with PTSD symptoms were also more likely to have a number of chronic illnesses. Although these patients had a disproportionate utilization of the health care system, they were reluctant to seek mental health treatment, a finding that has been seen in many other studies as well (Solomon & Davidson, 1997). A partial listing of some of the most recent comorbid studies is daunting: panic disorder and social phobia, borderline personality disorder, somatiform disorders, obsessive-compulsive disorder, and anxiety disorders (Bleich et al., 1994; Ellason et al., 1996; Fierman et al., 1993; Herman et al., 1989; Orsillo et al., 1996; Perry et al., 1990; Pitman, 1993; Rogers et al., 1996; Saxe et al., 1994; Vasile et al., 1997).

Child sexual abuse has been found to be comorbid with many later psychiatric problems. A number of studies have found correlations between childhood sexual abuse and borderline personality disorders, panic disorder, suicide attempts, eating disorders, depression, bulimia and generalized anxiety, and increased risk for lifetime diagnoses of major depression, panic disorder, phobia, somatization.

Key Point:
After rape, the prevalence of PTSD is extremely high, with rape victims also at risk for major depressive episodes and suicide.
disorder, chronic pain, and drug abuse (Angst et al., 1992; Bushnell et al., 1992; Connors & Morse, 1993; Herman et al., 1989; Leserman et al., 1996; Perry et al., 1990; Pollack et al., 1992; Walker et al., 1992). In a review of all post-1987 studies on the long-term consequences of sexual abuse, sexually abused subjects reported higher levels of general psychologic distress and higher rates of both major psychologic disorders and personality disorders than nonabused subjects (Polusny & Follette, 1995). In addition, child sexual abuse survivors report higher rates of substance abuse, binge eating, somatization, and suicidal behaviors than nonabused subjects. Adult survivors of child sexual abuse report poorer social and interpersonal relationship functioning; greater sexual dissatisfaction and dysfunction, including high-risk sexual behavior; and a greater tendency toward revictimization through adult sexual assault and physical partner violence.

There are at least 10 other trauma-related disorders, including brief reactive psychosis, dissociative identity disorder, dissociative amnesia, borderline personality disorder, somatization disorder, dissociative fugue, and antisocial personality disorder (Davidson, 1993). The connection between borderline personality disorder and trauma, particularly childhood trauma, has been studied extensively by a number of authors (Ellison et al., 1996; Herman et al., 1989; Perry et al., 1990; Sabo, 1997).

The clinical picture for sexual abuse survivors and other trauma victims who are exposed to repetitive trauma is particularly complicated. The most common clinical presentation encompasses seven clusters of symptoms best described as "complex PTSD" and includes alterations in regulating affective arousal, alterations in attention and consciousness, somatization, alterations in self-perception, alterations in perception of the perpetrator, alterations in relations to others, and alterations in systems of meaning. The presence of these symptom clusters has been demonstrated to differentiate adult victims of childhood interpersonal violence and abuse from adult-onset trauma syndromes associated with disasters (Herman, 1992; Van der Kolk et al., 1994).

Trauma and Substance Abuse

Another concurrent problem for victims of violence is the intimate connection between substance abuse and PTSD. People with PTSD are two to three times more likely to have a substance abuse disorder. Studies show that 27% to 35% of adult sexual abuse victims have a history of alcohol abuse and 21% a history of drug abuse (Green, 1993). In a subpopulation of female incest survivors who had been inpatients in psychiatric institutions, the numbers of substance abusers rose to 80% (Green, 1993). Battered women are 15 times more likely to abuse alcohol (Salasin & Rich, 1993). According to the National Women's Study, there was also substantial evidence that rape victims had higher rates of drug and alcohol consumption, and a greater likelihood of having drug and alcohol-related problems than nonvictims (Kilpatrick et al., 1992). Estimates are that as many as 75% of women in treatment for alcoholism have a history of sexual abuse (Beller et al., 1990).

A history of childhood rape doubled the number of alcohol abuse symptoms that women experienced in adulthood, and there was a significant relationship between pathways connecting childhood rape to PTSD symptoms and PTSD symptoms to alcohol use (Epstein et al., 1998).

Sexual assault may have a great deal to do with the rising incidence of substance abuse among the adolescent population. In a 1995 Minnesota study of over 120,000 public school students in grades 6, 9, and 12, physical and sexual abuse were associated with an increased likelihood of the use of alcohol, marijuana, and almost all other drugs for both males and females. Use of multiple substances was highly elevated among victims of abuse, with the highest rates seen among students who reported both physical and sexual abuse. Abuse victims also reported initiating substance use earlier than their nonabused peers and gave more reasons for using, including coping with painful emotions and escaping from problems (Harrison et al., 1997).
Sexual Assault and Neurobiologic Changes

Evidence is accumulating about the nature and extent of psychobiologic changes that are secondary to sexual assault. The results are disturbing, making it clear that children's psychobiologic development and adult function can be profoundly affected by sexual assault. In a longitudinal study of sexually abused girls, researchers have demonstrated that sexual abuse is associated with dysregulatory responses of the hypothalamic-pituitary axis, similar to changes seen in stressed animals. They have also noted elevated levels of urinary catecholamines, a twofold higher incidence of plasma antinuclear antibodies, and disproportionately high levels of illnesses and infections in the abused group (Putnam & Trickert, 1997). Other studies support the connection between the hypothalamic-pituitary axis and later problems in adulthood. It has been hypothesized that early adverse experiences result in an increased sensitivity to the effects of stress later in life and render an individual vulnerable to stress-related psychiatric disorders. This vulnerability may be mediated by persistent changes in corticotropin-releasing factor-containing neurons, the hypothalamic-pituitary-adrenal axis, and the sympathetic nervous system (Heim & Nemeroff, 1999). Maltreated children with PTSD excreted significantly greater concentrations of urinary dopamine and norepinephrine over 24 hours than the control group of children with overanxious disorder (De Bellis et al., 1999).

Studies have demonstrated that abused children have reversed hemispheric asymmetry and greater left hemisphere coherence in contrast to nonabused children. These studies demonstrate that early abuse affects brain development in a number of ways and that the left hemisphere appears to be more vulnerable than the right (Teicher et al., 1997). Other researchers propose that childhood trauma alters limbic, mid-brain, and brain structures through "use dependent" modifications secondary to prolonged alarm reactions (Perry et al., 1995).

Sexually assaulted adults show profound psychobiologic changes as well. Women with a history of prior physical or sexual assault showed a significantly attenuated cortisol response to the acute stress of rape compared to women without such a history. In a study of female patients diagnosed with borderline personality disorder and a past history of sustained childhood abuse, psychobiologic indicators suggested that childhood exposure had negatively affected the serotonin system (Rinne et al., 2000).

Women who develop PTSD secondary to childhood sexual abuse show a much higher rate of neurologic "soft sign" scores, that is, subtle neurologic changes, than women who had also been sexually abused as children but did not have PTSD. These differences could not be explained by alcoholism or head injury. These subjects reported more neurodevelopmental problems and more childhood attention-deficit/hyperactivity disorder symptoms and had lower IQs, all of which were significantly correlated with neurologic signs (Gurvits et al., 2000). In fact, the list of biological abnormalities associated in PTSD is growing. Baseline heart rate and blood pressure are increased. The hypothalamic-pituitary axis is dysregulated, blood triiodothyronine level is increased, blood and urinary cortisol levels are decreased, and platelet alpha2-adrenergic receptor binding and platelet serotonin uptake are increased (Pitman, 1997). These findings are of particular significance to sexual assault victims, given the high rate of PTSD secondary to sexual assault.

The Health Consequences of Trauma

Victims of trauma often suffer from a multitude of physical disorders not directly related to whatever injuries they have suffered. The number of reports connecting PTSD with other physiologic conditions includes fibromyalgia, chronic pain, irritable bowel syndrome, asthma, peptic ulcer, other gastrointestinal illness, and chronic pelvic pain (Amir et al., 1997; Badura et al., 1997; Benedikt & Kolb, 1986; Davidson et al., 1991; Drossman, 1995; Geisser et al., 1996; Irwin et al., 1996;
Walker et al., 1996; Walling et al., 1994). Child sexual abuse has been found to be comorbid with many later physical problems. A number of studies have found correlations between eating disorders, chemical dependency, irritable bowel syndrome, chronic pelvic pain, chronic pain, and drug abuse (Connors & Morse, 1993; Elbon et al., 1996; Irwin et al., 1996; Leserman et al., 1991; Reiter et al., 1991; Walker et al., 1992). There is now a science of stress-related disorders that details how stress negatively affects the body in a number of ways, producing short-term and long-term physical consequences (Samo, 1998).

STRESS, MOODS, AND IMMUNITY
As the field of psychoneuroimmunology expands, a growing body of information discusses the relationship between stress, traumatic stress, and the immune system. Even mild stress has an impact on the immune system (Bachon et al., 1992; Brosschot et al., 1994). There is also evidence that interpersonal stressors have a different impact from nonsocial stressors. Subsequent analyses suggest that objective stressful events are related to larger immune changes than subjective self-reports of stress, that immune response varies with stressor duration, and that interpersonal events are related to different immune outcomes than nonsocial events (Herbert & Cohen, 1993). Factors such as stress, negative emotion, clinical depression, lack of social support, and repression/ denial can negatively influence both cellular and humoral indicators of immune status and function. At least in the case of the less serious infectious diseases (colds, influenza, herpes), there is consistent and convincing evidence of links between stress and negative emotion, and disease onset and progression (Cohen & Herbert, 1996). The interaction between stress and immunity is complex, mediated by emotions. Thus concepts such as coping, control, helplessness, and hopelessness are required to understand the complex nature of the immune responses (Ursin, 1994).

In primates, there is a large body of evidence that disruptions in social relationships have many immunologic sequelae, particularly in the young monkey. There is evidence in infant monkeys that normal maternal care is important for the development and maintenance of normal immune function. The immune responses of adult monkeys are also affected by aggression within the group (Coe, 1993).

In two related studies, one of children in day care and another of children entering kindergarten, the development of respiratory illnesses was found to be related to stressful life events (Boyce et al., 1995). Another group evaluating adolescents found that there was a correlation between significant negative life events and lowered natural killer cell activity (Birmaher et al., 1994).

CHRONIC VIOLENCE AND HEALTH
Interest has grown in looking at the connection between women’s experience of violence and subsequent health problems. A recent study by the Center for Disease Control surveyed almost 14,000 adults in a health maintenance organization, asking participants about their adverse childhood experiences, which were divided into categories that included physical, sexual, and emotional abuse, witnessing violence against one’s mother, and living as a child with a household member who was either imprisoned, mentally ill, suicidal, or a substance abuser. There was a direct relationship between the number of categories of adverse childhood experience and adult diseases, including ischemic heart disease, cancer, chronic lung disease, skeletal fractures, and liver disease. The seven categories of adverse childhood experiences were strongly interrelated, and persons with multiple categories of childhood exposure were likely to have multiple health risk factors later in life (Felitti et al., 1998).

Although the correlation is often unrecognized, women who have been sexually abused and sexually assaulted routinely present to their gynecologists with a number of complaints. In a randomized survey of 1599 women, 31.5% of participants reported a diagnosis of gynecologic problems in the past 5 years. Those with
problems were more likely to report childhood abuse, violent crime victimization, and spouse abuse (Plichta & Abraham, 1996).

Sexual abuse and assault take a heavy toll on sexual adjustment. A recent study examined the differential effects of child and adult sexual abuse on adult sexual functioning. Women who had a history of sexual abuse in childhood or adulthood experienced more sexual dissatisfaction than nonabused women and had higher numbers of unsafe sexual partners (Bartoi & Kinder, 1998). In a study looking at the relationship between sexual abuse of males and females and engagement in sadomasochistic sexual practices, self-reported sexual abuse was higher among the participants, and those who reported abuse were more likely to have visited a physician due to physical injuries secondary to the sexual activity. Furthermore, the higher the frequency of abuse, the poorer the body image of the abused male participants (Nordling et al., 2000).

Several other recent studies have found associations between childhood maltreatment and adverse adult health outcomes. A history of childhood maltreatment has been significantly associated with several adverse physical health outcomes. Maltreatment status was associated with perceived poorer overall health, greater physical and emotional functional disability, increased numbers of distressing physical symptoms, and a greater number of health risk behaviors. Women with multiple types of maltreatment showed the greatest health decrements for both self-reported symptoms and physician coded diagnoses (Walker et al., 1999). Women with a history of childhood sexual abuse may be particularly susceptible to the effects of heightened daily stress and may display this susceptibility in the report of physical symptoms (Thakkar & McCanne, 2000). Compared with nonvictims, victimized women reported more distress and less well-being, visited a physician twice as frequently, and had outpatient costs that were 2.5 times greater (Koss et al., 1991).

**SEXUAL ASSAULT AND REVICTIMIZATION**

One of the many horrors that result from sexual assault is the tendency of victims to be revictimized. Child sexual abuse survivors appear to be particularly vulnerable to revictimization experiences. Victimization before age 14 years almost doubles the risk of later adolescent victimization. In a recent study, sexual victimization among university women was highest for those who had been first assaulted in early adolescence. Adolescent victims of rape or attempted rape, in particular, were 4.4 times more likely to be as seriously assaulted during their first year of college (Humphrey & White, 2000). Offering explanations for this phenomenon among adolescents, one group of investigators propose that revictimization appears to arise because the childhood and family factors that are associated with childhood sexual abuse are also associated with increased sexual risks during adolescence. Also, exposure to childhood sexual abuse may encourage early onset sexual activity, which places those exposed at greater sexual risk over the period of adolescence (Fergusson et al., 1997).

**Prostitution**

Prostitution can be thought of as a special case of revictimization for many sexually abused children and adults. Study after study shows a marked and dramatic relationship between prostitution and a previous history of sexual abuse. Running away from homes in which they are being abused provides children with distinct pathways into prostitution. Childhood sexual victimization nearly doubles the odds of entry into prostitution throughout the lives of women (McClanahan et al., 1999). In a study of 130 prostitutes working in San Francisco, 57% reported that they had been sexually assaulted as children (Farley & Barkan, 1998). Children who were sexually abused are 27.7 times more likely to be arrested for prostitution than nonvictims (Widom & Kuhns, 1996).
Victim to Victimizer Behavior
When the effects of trauma are understood, it becomes possible to grasp how someone could become a victim and then become a victimizer as a result. A victim is both helpless and powerless, and as we have seen, helplessness is a noxious human experience that people seek to avoid. Once victimized, a possible outcome for the victim is to assume the power of the perpetrator by becoming someone who terrorizes and abuses others. Such behavior can reduce anxiety while providing a certain excitement, and the combination of these two effects can become habit-forming.

These effects can also be profoundly culturally influenced. The traditional definition of masculinity does not allow for helplessness—a man cannot be a victim and still be considered masculine. In contrast, the traditional definition of femininity not only allows for, but also encourages, powerless and therefore the open possibility of victimization. It should come as no surprise, therefore, that boys and men would accommodate more easily to the victimizer role and women, the victim role. We must contend with the reality that normative standards about the acceptability of the sexual assault of women remain confused. In a 1993 national study of 1,700 sixth to ninth graders, a majority of the boys considered rape “acceptable” under certain conditions and many of the girls agreed (Wallis, 1993). According to several sources, 51% to 60% of college men report that they would rape a woman if they were certain that they could get away with it. One out of 12 college men surveyed had committed acts that met the legal definition of rape. 54% of these men said what they did was definitely not rape (Warshaw, 1988).

The strong connection between child abuse, particularly child sexual abuse, and later committing a sexual offense is still being studied. The neglect of this important topic can probably be attributed to, or is at least consistent with, the neglect of the sexual abuse of boys and adult men. Most sexual abuse of adult men is happening in prisons, while boys are frequently abused at home and in other settings with trusted caregivers.

Childhood victimization is a significant predictor of the number of lifetime symptoms of antisocial personality disorder and of a diagnosis of antisocial personality disorder (Luntz & Widom, 1994). In one study, 59% men were evaluated for childhood sexual and physical abuse and perpetration history. Eleven percent of the men reported sexual abuse alone, 17% reported physical abuse alone, and 17% reported both sexual and physical abuse. Of the 257 men in the sample who reported some form of childhood abuse, 38% reported some form of perpetration themselves, either sexual or physical; of the 126 perpetrators, 70% reported having been abused in childhood. Thus, most perpetrators were abused, but most abused men did not perpetrate (Lisak et al., 1996).

Another group of researchers studied children age 9 to 14 years who were sexual offenders. The sex offenders were found to exhibit a significant history of nonsexual antisocial behavior, physical abuse, and psychiatric comorbidity; 65% of the boys had been sexually abused (Shaw et al., 1993). The differences between those who victimize adults and those who victimize children have also been studied with respect to sexual abuse. While an estimated 22% of those who victimized children reported having been sexually abused, fewer than 6% of those who victimized adults reported such backgrounds.

In a study of serial rapists incarcerated in US prisons, 56.1% were judged to have at least one forced or exploitative abuse experience in boyhood, as compared to a study of 2,972 college males reporting 7.3% experiencing boyhood sexual abuse. Also, the rapist sample revealed higher rates of a family member as an abuser compared to the college sample. Fifty-one percent reenacted their own abuse as a preadolescent with their earliest victims being girls they knew in the neighborhood.
their sisters, or a girlfriend. When investigators looked at men on death row, they found a history of family violence in all of them, including severe physical and/or sexual abuse in 14 of 16 cases (Freedman & Hemenway, 2000).

However, like any complex problem, there is no one-to-one direct relationship between being victimized and becoming a victimizer. Most sexually abused people do not go on to victimize people. It is not yet clear why some children follow such a course and other children, similarly victimized, do not. Nor does one kind of victim experience necessarily predict the ways in which an offender will victimize others. Although information is accumulating about the numbers of sexual offenders who have been sexually abused, the degree to which they may also have been physically abused, emotionally abused, or neglected is unknown. When sexual offenders deny having been sexually abused, insufficient data are available to analyze their exposure to other traumatizing or abusive situations.

Sexual Assault and Parenting

One of the most pernicious aspects of violence is its multigenerational impact. Violence in one generation often leads to violence in the next. Parenting behavior can be profoundly affected by the impact of trauma.

Main and Goldwyn (1984) have elaborated experimentally on John Bowlby’s original formulation of childhood attachment. In studying mothers and their children, they have noted that a mother’s apparent experience of her own mother as rejecting is systematically related to both her rejection of her own infant as observed in the laboratory and to systematic distortions in her own cognitive processes. These distortions, such as idealization of the rejecting parent, difficulty in remembering childhood, and an incoherence in discussing attachment, are each significantly related to the mother’s rejection of her own infant. Distortions in representation of an abusing parent may play a positive role in the perpetuation of child abuse.

Marked differences have been noted in the ability of physically abusive and nonabusive mothers to be sensitive to the moods and signals of their children (Fontana & Robison, 1984). Abusive mothers spent less time looking at their children, were less focused in their attention on them, barraged them with words and actions that were unaffected by the child’s response, were physically coercive, and spent more time issuing directives and orders than mothers from similar backgrounds who do not abuse their children. In a study in which abusive and nonabusive mothers were evaluated on their ability to respond empathically to a crying child, the high-risk mothers were less empathic and more hostile in response to a crying child (Milner et al., 1995).

Mothers who were abusive to their children have been found to be more dissociative about their own history, tending to idealize their own childhoods more, to avoid dealing with the implications of the past, and to be inconsistent in their childhood descriptions as compared to mothers who broke the cycle of abuse (Egeland & Susman-Stillman, 1996). This finding has been supported in other studies, indicating that mothers with dissociative disorders can have significant difficulties in parenting compared to nondissociative inpatient mothers and a control group. They tend to show more abusiveness toward the child, have problems using constructive parenting skills, use more hurtful forms of discipline, demonstrate difficulties in showing affection, exhibit problematic attachment behaviors, are subject to cognitive distortions, have difficulties with the regulation of anger, and are inadequate in the ability to employ actions to promote the developmental growth of the child (Benjamin et al., 1996). Mothers with a history of child sexual abuse were significantly more anxious about intimate aspects of parenting than the comparison group. They also reported significantly more overall

Key Point:

Most sexually abused individuals do not go on to victimize others. It is not yet known why some children do follow this course and others who have undergone the same degree of abuse do not.
stress as parents. The index group recalled that their own parents were significantly less caring and that their fathers were more controlling than the comparison group. Mothers with a history of child sexual abuse who attend mental health services are often worried that their normal parenting behaviors may be inappropriate or seen as such by other people. These anxieties seem associated with their history of childhood sexual abuse (Douglas, 2000).

Girls whose mothers were sexually abused were 3.6 times more likely to be sexually victimized. Maternal sexual abuse history combined with maternal drug use placed daughters at the most elevated risk. Maternal sexual abuse history indicates a strong potential for the intergenerational transmission of child sexual abuse (Whiffen et al., 2000). Another study examined characteristics of mothers of boys who were involved in sexual abuse either as victims, perpetrators, or both. Depression, child abuse histories, and current attributions were investigated for 80 mothers of boys in three abuse referral groups—victimized perpetrators, nonvictimized perpetrators, and victims only—in comparison with a group of boys showing externalizing behaviors. Sexual victimization in their own childhood was reported by 55% of mothers of perpetrators and 30% of mothers of victims. High rates of spouse abuse were reported by both mothers of perpetrators (72%) and mothers of victims (50%) (New et al., 1999).

When researchers looked at maltreated children and their mothers, PTSD was significantly overrepresented in the children of mothers diagnosed with PTSD. The onset of maltreatment was significantly earlier among children whose mothers meet PTSD criteria than among other maltreated children (Famularo et al., 1994). These findings among mothers have been supported by findings of impaired parenting skills in fathers as well. In a sample of 1200 male Vietnam veterans and 376 of their partners, male veterans with current PTSD showed markedly elevated levels of severe and diffuse problems in marital and family adjustment, in parenting skills, and in violent behavior (Jordan et al., 1992). It is hypothesized that part of the problem for these parents is the prolonged hyperarousal that accompanies stress in those previously exposed to trauma. In laboratory experiments comparing the effects of stressors on mothers with a history of maltreatment and those without such a history, the mothers who had been physically abused in childhood tended to get more aroused and stay aroused longer after even a relatively mild stressor than mothers in the control group (Casanova et al., 1992, 1994).

Studies have supported the close connection between child abuse and domestic violence. In one study of abused children, 59.4% of the mothers exhibited behavior considered to be highly suggestive of current or previous victimization. In fact, in homes where domestic violence occurs, children are at 1500% greater risk of child abuse than the national average (National Victim Center, 1993). A review of child abuse studies reveals that one third of abused children will grow up to become abusive parents, one third will not, and another third are at risk. Abused mothers who were able to break the abusive cycle were significantly more likely to have received emotional support from a nonabusive adult during childhood, were more likely to have participated in therapy during some period of their lives, and were more likely to have had a nonabusive and more stable, emotionally supportive, and satisfying relationship with a mate. Abused mothers who reenacted their maltreatment with their own children experienced significantly more stress and were more anxious, dependent, immature, and depressed (Egeland et al., 1988). Research has found that women who continued the cycle of child abuse reenacted their own abuse, identified with their abuser or with a nonprotective parent, had poor attachment with their own parents, used dissociation or other defensive behaviors to protect themselves from memories of their abuse, and had not been able to discuss their abuse to a supportive person (Green, 1998).
RESPONDING TO SEXUAL ASSAULT: CREATING SANCTUARY

Creating sanctuary refers to the process involved in creating safe environments that promote healing and sustain human growth, learning, and health (Bloom, 1997). The problem of sexual assault is so great and affects so many children and adults that it is no longer acceptable to pretend that all that is needed is to turn over these problems to mental health or health care professionals. There are not, nor will there ever be, professionals in sufficient numbers to address the sheer volume of people suffering from the multitude of problems that arise secondary to exposure to violence. Therefore all medical and social institutions must find ways to address the problem by creating environments that promote and sustain better physical, emotional, and relational health. To do this, it is helpful to start with a series of basic principles that arise naturally out of trauma theory.

The first fundamental attribute of creating sanctuary is changing the presenting question with which we verbally or implicitly confront another human being whose behavior we do not understand from “What’s wrong with you?” to “What’s happened to you?” Changing the position vis-à-vis other people in this way radically shifts the perspective, moving toward a position of compassion and understanding and away from blame and criticism. Rather than think of troubled or troubling people as “sick” or “bad,” it is more useful to understand that psychologic injuries are comprehensible, treatable, and remedial, just as physical injuries are, even if the psychologically injured person must learn to live with some form of disability (Bloom, 2000). A recovery paradigm for the complex problems that accompany overwhelming trauma should provide the survivor with the single component often missing from treatment: hope.

The first and most essential assumption must be the human need for safety. The definition of safety, however, includes not just physical safety, but psychologic, social, and moral safety as well. Psychologic safety is the ability to be safe with oneself. Social safety is the ability to be safe in groups and with other people. Moral safety involves the maintenance of a value system that does not contradict itself and is consistent with healthy human development as well as physical, psychologic, and social safety. An environment cannot be truly safe unless all of these levels of safety are addressed. A focus on physical safety alone results in living in an armed fortress, paranoid and alienated from others.

The impact of traumatic experience directly leads to specific implications for any environment that is to be health-promoting. Exposure to helplessness means that interventions designed to help people overcome traumatizing experiences must focus on mastery and empowerment while avoiding further experiences of helplessness. The prolonged hyperarousal and the loss of the ability to manage emotional states appropriately that accompany traumatic exposure implies the need to understand that many behaviors that are socially objectionable and even destructive are also individuals’ only method of coping with overwhelming and uncontrollable emotions. If they are to stop using these coping skills, they must be offered better substitutes—most importantly, healthy and sustaining human relationships.

Since quality thinking under stress is almost impossible, in formulating intervention strategies every effort should be made to reduce stress whenever good decisions are sought. The growing sources of social stress inflicted on individuals and families at home, in the workplace, and in the community must be assessed and the kinds of buffers that can be put into place to help attenuate the effects of these stressors evaluated.

The memory problems resulting from overwhelming stress imply that environments designed to intervene in the lives of suffering people must provide an abundance of
opportunities for people to talk about their experiences. It means that programs focusing on nonverbal expression (including art, music, movement, and drama, as well as sports) are vital adjuncts to healing efforts and should be funded, not eliminated, in the schools and in the community. It means that the arts can play a central role in community healing, serving as a “bridge across the black hole of trauma” (S. L. Bloom, unpublished, 1996).

When the potent impact that trauma has on the emotions of survivors is recognized, the apparent need is to develop techniques for helping people manage their emotions more effectively. Systems are required that build and reinforce the acquisition of what Goleman (1998) has termed “emotional intelligence.” Many of the maladaptive symptoms that plague our social environment result from the individual’s attempt to manage overwhelming emotions that are effective in the short run but detrimental in the long-term. If we fail to protect children from overwhelming stress, then we can count on creating life-long adjustment problems that take a toll on the individual, the family, and society as a whole. If we expect people to give up their self-destructive addiction to substances and damaging behavior, then we must be willing to substitute supportive human relationships.

The recognition of the importance of addiction to trauma implies that intervention strategies must focus on helping people to “detoxify” from this behavioral form of addiction by providing environments that insist on the establishment and maintenance of safety. People who have been traumatized need opportunities to learn how to create relationships that are not based on terror and the abuse of power, even though abusive power feels “normal” and “right.” In such cases, people often need direct relationship coaching and the experience of engaging in relationships that are not abusive and do not permit or tolerate abusive and punitive behavior.

People who have been sexually assaulted or traumatized significantly in any way must face incomprehensible losses and to do so, they must be able to grieve. Today’s society has difficulty with grief. Rather than help a grieving person find ways to work through their suffering and loss, we are more likely to advise them to “get over it,” “put it out of your mind,” or “forget about it”—all injunctions to not resolve the loss. This is particularly true when the losses that people sustain are not about the actual death of a significant other. Trauma survivors must grieve, and the consequences for not grieving are enormous. Unresolved grief prevents recovery from both the psychologic and the physical problems that result from exposure to a traumatic experience.

The process of recovery from trauma is a painful one. To heal, survivors must open up the old wounds, remember and reconstruct the past, resolve the accompanying painful emotions, and reconnect to their internal world and the world around them. To do so requires a vision of possibilities. It requires a clear recognition that recovery is possible, that there is a new life to be found after trauma, and that people are free to change and grow regardless of how trapped, imprisoned, or violated they were in the past. For the demoralized and depleted trauma survivor, other people must advance this vision of freedom.

**SUMMARY**

The sexual assault of children and adults in the United States is a pressing public health problem of extraordinary proportions. At least 20% of American women and 10% of American men are sexually assaulted before they reach adulthood, and one out of every eight adult women will be the victim of forcible rape in her lifetime. Trauma theory provides a comprehensive psychobiologic model for understanding the immediate, short-term, and long-term impact of traumatic stress in the lives of men, women, and children and for understanding why the outcome of exposure to trauma is so complex and multisystemic. The impact of sexual assault on neurobiology, mental health, physical health, and social adjustment, including the
capacity to parent, has been reviewed, as well as the exorbitant cost to society of allowing so many of its members to be victimized.

Sexual assault is one of the most basic violations one human being can inflict on another. For far too long, rape has been a way of exerting power over others. In personal relationships, it is a way for men to exert the fact of their physical dominance over women and other men. In the family, the sexual assault of children is a way for adults to use children as convenient “poison containers” for all the unexpressed and unresolved conflicts in their own lives simply because they have the power to do so (DeMause, 1990). In the political arena, rape is used as a way of humiliating and subjugating an enemy. Sexual assault is about a fundamental abuse of power and arguably is such a prevalent form of violation because the norms of society continue to justify and support abusive power in all of its forms.

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