

UNDERSTANDING THE IMPACT OF SEXUAL ASSAULT:

THE NATURE OF TRAUMATIC EXPERIENCE

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ABSTRACT

The sexual assault of children and adults is a major public health problem facing our society. Sexual assault has immediate and long-term consequences that can be devastating for the physical, emotional and relational health of the victim. This chapter will address the current understanding of how exposure to the overwhelming stress of assault alters the psychobiology, personal adjustment, and systems of meaning for the victim and explore the consequences of these changes on physical health, mental health, social adjustment, revictimization, and ability to parent.

INTRODUCTION

The sexual assault of children and adults is a major public health problem facing our society. Sexual assault has immediate and long-term consequences that can be devastating for the physical, emotional and relational health of the victim. Considerable evidence exists to show that at least 20 percent of American women and 5 percent to 10 percent of American men experienced some form of sexual abuse in childhood and more than six out of ten of all rape cases occur before victims reach age 18; 29% of all forcible rape occur before the age of eleven. Of adolescents ages 12-17 in the United States, an estimated 8% have been victims of serious sexual assault. One out of every eight adult women or at least 12.1 million American women will be the victim of forcible rape sometime in her lifetime.

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 philosophical model for understanding these effects. A traumatic experience impacts 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. And all of these factors are rooted in our human evolutionary experience as well as our psychobiological development.

As our understanding grows about the complex nature and impact of overwhelming experiences, we are recognizing that the trauma of sexual assault can affect every level of a person's adjustment. Posttraumatic stress disorder is a chronic and often disabling condition and the prevalence of PTSD after rape is extraordinarily high. Another striking and consistent finding is the rate of comorbidity with PTSD. Even in the most conservative study, those with PTSD were two to four times more likely than those without PTSD to have virtually any other psychiatric disorder, particularly somatization. Rape victims are far more likely to experience severe depression, make suicide attempts and develop a substance abuse problem.

Evidence is accumulating about the nature and extent of psychobiological changes that are secondary to sexual assault. There is now a science of stress-related disorders that details how stress impacts negatively on the body in a number of ways, producing short-term and long-term physical consequences. The results of this growing body of studies is disturbing, making clear that children's psychobiological development and adult function can be profoundly impacted by sexual assault. Victims of trauma, abuse and neglect often suffer from a multitude of physical disorders not directly related to whatever injuries they have suffered as a result of the rape. Compounding the problem is the reality of revictimization. One of the many horrors attendant upon 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 as we have seen, helplessness is a noxious human experience. Human beings will do anything to avoid feeling powerless. When we understand the effects of trauma it is easier to grasp how someone could be victimized and turn away from the victim role and assume the victimizer role instead. If you have been victimized, one of the possible outcomes is to identify with the power of the one who has hurt you by becoming someone who terrorizes and abuses others. There is clear evidence that victimizers are more likely to have been victimized as children than people who do not victimize others. Moving from victim to victimizer is just one of the possible outcomes to sexual violation.

One of the most pernicious aspects of violence is its multigenerational impact. Violence in one generation quite often leads to violence in the next,

and there is now a great deal of evidence to support this finding. Parenting behavior can be profoundly affected by the impact of trauma.

Every incident of child sexual abuse has been estimated to cost the victim and society at least \$99,000 and estimates of the toll for every adult rape ranges from \$47,000 to \$60,000. The problem of sexual assault is so great, affects so many children and adults that there are not, nor will there ever be, mental health workers 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 of our social institutions need to 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 what we know about trauma theory, a model we have called "Creating Sanctuary".

THE MAGNITUDE OF THE PROBLEM

CHILDHOOD SEXUAL ASSAULT

The sexual assault of children in the United States presents a public health threat of vast proportions that has only been recognized in the last two decades. According to the Third National Incidence Study of Child Abuse the number of abused and neglected children in the U.S. grew from 1.4 million in 1986 to over 2.8 million in 1993 and the number of sexually abused children rose by 83% in that period.¹ Approximately 150,000 confirmed cases of child sexual abuse were reported to child welfare authorities in the United States during 1993. This number represents about 15 percent of the more than one million confirmed cases of all child abuse and neglect. Considerable evidence exists to show that at least 20 percent of American women and 5 percent to 10 percent of American men experienced some form of sexual abuse as children with the peak age of vulnerability between age 7 and age 13. Most sexual abuse is committed by men (90 percent) and by persons known to the child (70 percent to 90 percent), with family members constituting one-third to one-half of the perpetrators against girls and 10 percent to 20 percent of the perpetrators against boys. Around 20 percent to 25 percent of child sexual abuse cases involve penetration or oral-genital contact.²

More than six out of ten of all rape cases occur before victims reach age 18; 29% of all forcible rape occur before the age of eleven.³ A 1995 Gallup Poll of parents estimated that as many as 19 per 1,000 children suffer sexual abuse.⁴ Researchers asked a national survey of parents how many of their children had been sexually abused and their replies resulted in an estimate of 1.9 percent in the last year and 5.7 percent ever, with an equal number of sexually abused boys and girls.⁵ Sixty-seven percent of all victims of sexual assault reported to law enforcement agencies were juveniles (under the age

of 18); 34% of all victims were under age 12.⁶ According to 1998 Federal statistics, nearly 12 percent of the child abuse victims were sexually abused which amounts to over 10,000 children in a year.⁷

Of adolescents ages 12-17 in the United States, an estimated 8% have been victims of serious sexual assault. Extrapolating the findings of this study to the national adolescent population as a whole suggests that of the 22.3 million adolescents ages 12-17 in the United States today, approximately 1.8 million have been victims of a serious sexual assault. As anticipated, more female than male adolescents had been sexually assaulted (13 percent of females in contrast to 3.4 percent of males). Of the females, 3.3 percent experienced unwanted penile penetration in contrast to 0.5 percent of the males. Similarly, 2.7 percent of the female adolescents but only 0.6 percent of the males experienced penetration with fingers or objects.⁸ In another survey of high school adolescents 12 percent of girls were sexually abused, while 5 percent of boys were sexually abused.⁹

The sexual abuse of girls has received a great deal of attention in the past twenty years but the sexual abuse of boys is less readily recognized. In a recent review of 166 studies dating from 1985 through 1997 researchers concluded that the sexual abuse of boys appears to be common, underreported, under recognized and under treated.¹⁰ Another study reported that among mental health care professionals, the majority rarely even inquired about sexual abuse in male patients.¹¹

ADULT SEXUAL ASSAULT

Twenty-two percent of women polled say they have been forced to do sexual things against their will, usually by an intimate.¹² One out of every eight adult women or at least 12.1 million American women will be the victim of forcible rape sometime in her lifetime.¹³ In 1990, 683,000 American women were forcibly raped which equals 56,916 per month; 1,871 per day; 78 per hour; and 1.3 per minute, and of these, only 16 percent were reported to the police.¹⁴ Among adult women an estimated 32,101 pregnancies result from rape each year. Only 11.7 percent of these victims received immediate medical attention after the assault, and 47.1 percent received no medical attention related to the rape.¹⁵ Approximately 34 percent of rapes are estimated to occur in the victim's home where children are likely to be present to see or hear the sexual assault of their mothers or caretakers.¹⁶

Most violence directed against women is perpetrated by intimates. Almost seven in ten rape or sexual assault victims stated the offender was an intimate, other relative, a friend or an acquaintance.¹⁷ According to a recent report issued by the National Institute of Justice, approximately 1.5 million women and 834,732 men are raped and/or physically assaulted by an intimate partner annually in the United States.¹⁸ In a recent study addressing sexual assault in the military, women in the military experience sexual assault at an even higher rate than in the general population. Data from the Veterans Administration Women's Health Project indicates that almost one quarter (23 percent) report that they were sexually assaulted while in the

military.¹⁹ In a college study, nearly 25% of 2,016 college women surveyed had been raped, according to strict legal standards. Another survey revealed that 1,000 rapes were reported on college campuses during 1991-2 academic year.²⁰

Compared to adult women, adult males in the general population are far less likely to experience sexual assault. But sexual assault of men in prison is a common experience. There are relatively few studies to give an accurate assessment of the problem, but according to some estimates over 290,000 men are sexually abused every year in prisons around the country. Victims of prison rape tend to be the youngest, the smallest, the nonviolent, the first-timers and those charged with less serious crimes.²¹

TRAUMA THEORY: UNDERSTANDING THE IMPACT OF SEXUAL ASSAULT

Until the 1970's when American men returned from Vietnam and began sharing the overwhelming nature of their combat experiences and American women gathered in consciousness raising groups to begin sharing their experiences of sexual assault, incest, and domestic violence, we knew relatively little about the impact of traumatic experience on the body, mind, social adjustment, and life philosophy of the victim. But 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 philosophical model for understanding these effects.

PSYCHOLOGICAL TRAUMA DEFINED

To understand what trauma does we have to 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 and 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 "post-traumatic stress disorder" according to the psychiatric bible, the DSM-IV, the victim has to have experienced, witnessed, or have 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.²²

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 life or even threat to physical integrity and yet we know that sexual abuse and none 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 human beings interacting with the complex nature of traumatic events.

Many factors go into determining what a traumatic event is for the victim. Certainly there are the objective features of the event itself – how suddenly did the event occur, how long did the event last, how bad was it, how much damage did it do, who did it and what were their intentions, how much life threat was involved, how much exposure to death and destruction was involved? – these are all relevant parameter questions. But a traumatic event occurs to a human being who is already established in the world with his or her own genes, constitution, developmental pathways, and life experience. As Lenore Terr, a child psychiatrist who did the first longitudinal study of traumatized children writes, “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”.²³

Complicating the question further, it is well established that events occurring during and subsequent to the traumatic event can make a profound difference in how the victim experiences and interprets that event. Here questions of how 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 an important role in determining the ultimate outcome. We also need 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 threat and will also experience a threat to people they are attached to as a threat to themselves. Van der Kolk makes this point about the complicated nature of trauma when he says, “Traumatization occurs when both internal and external resources are inadequate to cope with external threat”.²⁴

Both clinicians make the point that it is not only the trauma itself that does damage to the victim. It is also how the individual’s mind and body reacts in its own unique way to the traumatic experience in combination with the unique response of the individual’s social group. A traumatic experience impacts 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. And all of these factors are rooted in our human evolutionary experience.

EVOLUTION’S LEGACY

It is impossible to fully understand human behavior and the human response to trauma without grasping key insights about the way we continue to be influenced by our evolutionary past. We evolved in a natural environment in which we were prey for hundreds of generations before we became predators. So profound is this influence that it provides the underpinning for

what has been termed the tragic nature of human existence, tragic because so much of what guaranteed our species survival in the evolutionary past, threatens our continued individual and collective survival in the present.^{25,26}

Unlike other mammals, we come into the world ill prepared to do battle with the natural enemies that surrounded us – helpless for a prolonged period after birth, we have few natural defenses. Like all mammals, we come equipped to respond to emergencies with what is called the “fight-or-flight” reaction. This state of extreme hyperarousal serves a protective function during the emergency, preparing us to respond automatically and aggressively to perceived threat, preferentially steering us toward action and away from the time-consuming effort of thought and language. However, prolonged hyperarousal leaves us physically and emotionally exhausted, burdened with hair-trigger tempers, irritability, and a tendency to perpetuate violence. So how did we survive, and even more impressively, eventually prevail, over beasts far larger, aggressive, and well-defended than us? We survived largely through three impressive adaptations – bigger and more integrated brains, social bonding, and the development of language. But each one of these progressive adaptations left us more vulnerable to the effects of trauma.

With our bigger, more highly integrated brains we learned how to outsmart less intelligent predators. The enlarging capacity of our memory equipment meant that we could retain increasingly large bodies of information while enabling us to integrate our past experience with our present experience, and thus learn from the past. This progressive mental integration meant that we could make hundreds, even thousands of associations to any event, and the more important to survival the event, the more likely that we would make a multitude of interconnected associations.

There was a price to be paid, however, for these enlarging brains. In order for the human female to remain standing upright, the female pelvis could only expand within certain circumscribed limits. The result of these two combined factors was the birth of a newborn human utterly unable to protect itself, forced to remain dependent and helpless for the longest period of any other species. Nature’s challenge was to find a mechanism that would bind caregivers and offspring together for decades instead of weeks. As a result, we are born with a number of innate emotions that are also part of our mammalian heritage and that produce patterned and predictable responses in all of our organs, including our brain.

Emotions of interest and excitement served our boundless curiosity, need for exploration and desire for experimentation thus promoting further brain development and integration. Emotions of enjoyment and joy induced pleasures fully satisfied only by social contact. Emotions of fear and terror served as warnings of danger for the entire family group and enhanced the desire to gather together for mutual defense, while sadness and despair guaranteed that separation between offspring and caregivers would drive us back toward the safety of each other and the group. The helplessness of

infancy is so terrifying and toxic for human beings that we will defend against experiences of helplessness for the rest of our lives. Anger and rage served as boundary protectors against the incursion of other beasts and the infringement of intimate others, automatically aroused whenever we experience betrayal.

So vital to our survival was this system of emotional engagement that although we experience emotional states as psychic phenomena, they are actually physical events that trigger dramatic responses in our major organs. Under severe stress, if our powerful emotional responses are not buffered by others through social contact and physical touch, our central nervous system is left exposed to unrelenting overstimulation. This reaction can do long-lasting harm to our bodies as well as our psyches. To protect against such danger, human beings developed a network of attachment relationships, living in extended kinship groups throughout most of our evolutionary developmental period. Our capacity to manage overwhelming emotional states is shaped by our experience with early childhood attachments and is maintained throughout life through our attachment relationships. This development of extended social networks increased the likelihood that vulnerable offspring would be protected and in combination with our expanding intelligence, made hunting and food gathering far more successful. Human beings could accomplish much more in groups than any one individual could on his or her own.

Even the development of human moral reasoning and our desire for justice can be recognized in early evolutionary development. Social relationships are built on the logic of reciprocity, or “tit-for-tat”, probably the basis of all cooperative relationships.²⁷ Studies of primates have demonstrated the prevalence of reciprocal relationships and the ability to detect cheating. Out of betrayed reciprocal relationships comes the natural desire for retaliation or revenge. As the primatologist, De Waals has pointed out, “it is safe to assume that the actions of our ancestors were guided by gratitude, obligation, retribution, and indignation long before they developed enough language capacity for moral discourse”.²⁸ Out of this innate desire for revenge comes our need to achieve satisfaction for injury and eventually our uniquely human system of laws.²⁹

The development of language was a profound leap forward for the human species. The spoken and later the written word enabled us to share information so that something learned by one individual could be easily and rapidly dispersed among the entire group. Through language, learning could be transmitted not only over space, but over time, so that the knowledge of one generation could be passed on to another, and another, and another. Language permitted us to develop ever more sophisticated means for cheating and for detecting – and punishing – cheaters. As our memory system became increasingly more complex, we developed two integrated forms of memory, one based on words, the other on nonverbal experience derived from our bodies and our senses. Over time, in fact, we became more and more word-dependent, ultimately basing our sense of reality, our sense

of time, and even our sense of self on our word-based intelligence and memory, often minimizing or even excluding the importance of nonverbal intelligence. As emotions, intelligence, relational capacity, language and memory became more fully integrated and as we could compare contemporary experience with the wisdom of the previous generations while anticipating the future, we became desperately aware of our own mortality, a realization so overpowering and awesome that it demanded the creation of meaning systems that could serve to buffer our vulnerable central nervous system against the terror inspired by the mystery of death.

EVOLUTION OFF-TRACK

So where in all this is the tragedy? The tragedy of all this magnificent evolutionary success emerges most fully when a human being is repeatedly traumatized, particularly when that exposure begins in childhood. Under such conditions, these evolutionary mechanisms, so adapted to our survival, become dangerous threats and impediments to further growth. Human beings are not well-suited to the environments we have created for ourselves, environments within which our most dangerous enemies are frequently members of our own families, while the institutions we have created to sustain and protect us turn out to be the engines of our own destruction.

Although the fight-or-flight state of physiological 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 leading to avoidance and re-enactment instead of adaptation and survival.³⁰ Our need to rescue ourselves from this untenable physiological state means that we will do anything, use any device, to calm ourselves down. If we cannot get relief from our fellow humans, we will turn to any substance or behavior that does bring relief.

Our very complex brains and powerful memories distinguish us as the most intelligent of all animals, and yet as we will see, it is this very intelligence that leaves us vulnerable to the effects of trauma such as flashbacks, body memories, post-traumatic nightmares and behavioral reenactments. Our dependence on language means that experiences for which there are no words cannot be integrated into consciousness and a coherent sense of identity, nor will that experience rest quietly. Instead, we become haunted by an unresolved past.

As a species we survived largely because we developed as social animals for mutual protection and this social nature of human beings is grounded in our need to attach to other human beings from cradle to grave. Emotions firmly secure us to other people but trauma profoundly disrupts our ability to manage emotional experience. We lose our capacity to respond to situations with the appropriate emotion in appropriate measure. We tend to overreact to events that should not provoke us, and under-react to events that we

should react to more meaningfully. Any impairment in our ability to respond with the appropriate emotional signal impairs our capacity to create and maintain healthy relationships. Traumatic experience disrupts attachment to the extent that the social world has failed to serve its protective function for the individual. Disruption of attachment schemas, expressed through the medium of emotional modulation in one generation, are perpetuated through the on-going parental and familial bonds into the next generation and do not automatically self-correct. We are particularly ill suited to having the people we are attached to also be the people who are violating us.

The social nature of our species is guaranteed by an innate sense reciprocity and it is this sense of “fair play” that leads not only to the evolution of justice systems, but also to the need for revenge. It is forgiveness that needs to be taught to human beings, not retaliation. As a result, you cannot hurt anyone, in any way, without setting the stage for a fervent desire for revenge that will be exacted either upon themselves, upon others, or both.

Finally, we are physiologically designed to function best as an integrated whole. Out of that sense of wholeness and integrity emerges meaning, purpose, values, belief, identity and integrity and wisdom. The fragmentation that accompanies traumatic experience degrades this integration and impedes maximum performance in a variety of ways. Human brains function best when they are adequately stimulated but simultaneously protected from overwhelming stress. This explains our need for order, for safety, for adequate protection. Without this balance between stimulation and soothing, we cannot reason properly and we cannot make sense out of what has happened to us. We are meaning-making animals. We must be able to make sense of our experience, to order chaos and structure our reality. Traumatic experience robs us of our sense of meaning and therefore purpose. Close contact with traumatic death or threats to our own mortality cannot be accepted but can only be transcended and trauma dramatically interferes with our capacity to grow, to change, and to move on. Losing the capacity for psychic movement, we deteriorate into a repetitive cycle of reenactment, stagnation and despair.

THE FIGHT-OR-FLIGHT RESPONSE

We are animals and like other animals, we are biologically equipped to protect ourselves from harm as best we can. The basic internal protective mechanism is called the fight-or-flight reaction. Whenever we perceive that we are in danger our bodies make a massive response that affects all of our organ systems. This change in every area of basic function is so dramatic that in many ways, we are not the same people when we are terrified as when we are calm.

The stress response is a total body-mind mobilization of resources. Powerful neurochemicals flood our brain and body including epinephrine, norepinephrine, cortisol, serotonin, dopamine, endogenous opiates, and endogenous benzodiazepines. Sugars are mobilized from liver and muscle, respiratory rate is increased, as are heart rate and blood pressure, and the

immune system is activated. Our attention becomes riveted on the potential threat and our capacity for reasoning and exercising judgment is negatively impacted by the rising anxiety and fear. Like our animal ancestors, we 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, we may lose language functions altogether, possibly mediated by the effect of rising levels of cortisol on the language centers of the brain.³¹ Without language, we can take in vital information only in nonverbal form – through our 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 pain³²

Each episode of danger connects to every other episode of danger in our minds, so that the more danger we are exposed to, the more sensitive we are to danger. With each experience of fight-or-flight, our mind forms a network of connections that is triggered with every new threatening experience regardless of whether the traumatic experience is happening in childhood or adulthood. If people are exposed to danger repeatedly, their bodies become unusually sensitive so that even minor threats can trigger off this sequence of physical, emotional, and cognitive responses. They can do nothing to control this reaction - it is a biological, built-in response, a protective device that only goes wrong if we are exposed to too much danger and too little protection.

Childhood exposure to trauma, particularly repetitive exposure to interpersonal violence including sexual assault, has even more dire consequences than when an adult experiences a traumatic event for the first time. Children’s brains are still forming. The release of powerful neurohormones, particularly during critical and sensitive moments in development, is thought to 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 physiological hyperarousal and hyperactivity with increased muscle tone, low grade increases in temperature, increased startle response, profound sleep disturbances, affect regulation problems, anxiety, and abnormalities in cardiovascular regulation all related to a use-dependent organization of brain stem nuclei involved in the stress response apparatus.³³

LEARNED HELPLESSNESS

Human beings deplore the state of helplessness. From infancy on we strive for an increasing sense of independence and self-reliance. Placed into situations of helplessness, we will do anything to escape and restore a sense of mastery. But helplessness is a hallmark characteristic of a traumatic experience. Take away the factor of helplessness, change the context, 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. Likewise, 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.

But in situations considered to be traumatic, the victim is helpless and it is this helplessness that is such a problem for human beings. Helplessness goes against our instinct for survival. Helpless surrender counters a carefully established sense of invulnerability and safety. Worse yet, repetitive exposure to helplessness is so toxic to our emotional and physiological stability that in service of continued survival, we are compelled to adapt to the helplessness itself, a phenomenon that has been termed “learned helplessness”.

We know from animal experiments, that helplessness can cause changes in an animal’s ability to recognize and escape from danger so that once the animal becomes accustomed to this helpless exposure to danger it gives up trying to escape. Apparently, there are detrimental changes in the basic neurochemistry that allows the animal to self-motivate out of dangerous situations. Instead, the animal adapts to the situation it cannot alter. There are consequences, however, for this adaptation. These animals become socially and sexually impaired and their immune systems become compromised.

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 only occurs when the experimenter actively intervenes and pulls the animal out of the cage. At first, the animal runs back in, having “learned to be helpless”, but after sufficient trials, it finally catches on and relearns – 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” and others are very vulnerable.³⁴

We know that people can learn to be helpless too, that if a person is subjected to a sufficient number of experiences teaching him or her that nothing they do will effect the outcome, people 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 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 simply buckling down and coping can create a serious obstacle to positive change, empowerment, and mastery 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. A person exposed to other forms of sexual assault may also freeze up and be unable to self-protect when similar triggering circumstances are presented. In such ways, a formerly adaptive coping skill turns into a maladaptive symptom.

LOSS OF “VOLUME CONTROL”

The experience of overwhelming terror destabilizes our internal system of arousal - the internal “volume control” dial that we normally have over all our emotions, especially fear. Usually, we respond to a stimulus based on the level of threat that the stimulus represents. People who have been traumatized lose this capacity to “modulate arousal” and “manage affect”. They tend to stay irritable, jumpy, and on-edge. Instead of being able to adjust their “volume control”, the person is reduced to only an “on-or-off” switch, losing all control over the amount of arousal they experience to any stimulus, even one as unthreatening as a crying child. Virtually everyone knows what it feels like to experience a shock of some kind and then to suffer through the days, weeks, or months it takes to return to a sense of normality. This is a part of the normal human response to stress. In cases of overwhelming stress, some people do not return to normal. It is as if their central nervous system “resets” itself to a higher level of arousal. This is far more likely to occur when people are exposed to repetitive traumatic insults, particularly when these insults originate in childhood.

Children are born with only an on-or-off switch. Gradually, over the course of development and with the responsive and protective care of adults, the child’s brain develops the ability to modulate the level of arousal based on the importance or relevance of the stimulus. This is part of the reason why the capacity of adults to soothe frightened children is so essential to their development. Children cannot learn to soothe themselves until adults have soothed them. Children who are exposed to repeated experiences of overwhelming arousal do not have the kind of safety and protection that they need for normal brain development and therefore they may never develop normal modulation of arousal. As a result they are chronically irritable, angry, unable to manage aggression, impulsive, and anxious.

Children – and the adults they become – who experience this level of anxiety will understandably do anything they can to establish some level of self-soothing and self-control. Under such circumstances, people frequently turn to substances, like drugs or alcohol, or behaviors like sex or eating or risk-taking behavior, or even engagement in violence, including self-mutilation, all of which help them to calm down, at least temporarily. If you have never been able to really control your feelings, and you discover that alcohol gives you some sense of control over your internal states, it is only logical that you will turn to alcohol for relief. The experience of control over helplessness will

count for much more than anyone's warnings about the long-term consequences of alcohol abuse.

THINKING UNDER STRESS - ACTION NOT THOUGHT

Our capacity to think clearly is severely impaired when we are under extreme stress. When we perceive that we are in danger, we are physiologically geared to take action, not to deliberate and weigh alternative choices, nor to consider the potential outcome of our actions. After all, in many situations of acute danger it is better that we respond immediately without taking the time for complicated and time-consuming mental processing. It is more important that we respond almost reflexively to save our lives or to protect those we love. When stressed, we cannot think clearly, nor can we consider the long-range consequences of our behavior. We cannot weigh all of the possible options before making a decision nor take the time to obtain all the necessary information that goes into making good decisions. Our decisions tend to be based on impulse and on an experienced need to self-protect. As a consequence these decisions are inflexible, oversimplified, directed towards action, and often very poorly constructed.³⁵ It is not uncommon in such situations to see people demonstrate poor judgment and poor impulse control. The mind is geared towards action and often the action taken will be violent. Many victims of repetitive exposure to violence have long-term problems with various aspects of thinking. An intolerance of mistakes, denial of personal difficulties, anger as a problem-solving strategy, hypervigilance, and absolutistic thinking are some of the problematic thought patterns that have been identified.³⁶

This pattern of response is easy to understand in people who are under acute stress. What has been more difficult to grasp is what life is like for people who suffer from posttraumatic stress disorder and other trauma-related syndromes. After prolonged exposure to stress, the brain can "reset" itself and people experience a state of chronic hyperarousal. In this state, they may perceive danger everywhere, even when there is no real danger, because their body is 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 capacity to study, to pay attention in the classroom, and to academically achieve may be severely compromised. Under such conditions, even intellectually gifted children can become school failures and behavioral management problems.

REMEMBERING UNDER STRESS

Exposure to trauma does strange things to 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, there has been a great deal of debate in the popular and academic press about whether or not people can "forget" traumatic events

and then “remember” them years later, about whether or not it is possible to “implant” false memories into someone’s mind.^{37, 38, 39, 40} 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 does impact the memory system in a way that other experiences do not.^{41, 42, 43, 44, 45, 46, 47}

Recent studies just have demonstrated how dramatically traumatic experiences impact on the brain. MRI studies of Vietnam veterans have demonstrated changes in right hippocampal volume in those with PTSD as compared to those without PTSD.⁴⁸ Other neuroimaging studies have shown similar reductions in women with PTSD who have experienced repeated childhood sexual abuse.⁴⁹ Considerable research has supported the hypothesis that peripheral stress hormones released as part of the stress response, influence memory storage processes – low doses of catecholamines enhance memory while high doses impair memory and catecholamines, like norepinephrine and epinephrine, are a significant part of the stress response.⁵⁰ 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.⁵¹ There is also a large body of data indicating the atrophic changes in the brain that appear to be the result of elevated glucocorticoids, like cortisol, particularly focused on changes to the hippocampus. The hippocampal formation, so important to the human memory apparatus, appears to be particularly vulnerable to insults such as the effects of stress.⁵²

The result of all this is that our way of remembering things, processing new memories, and accessing old memories is radically changed when we are under stress. There is a growing body of evidence indicating 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.⁵³ What we consider our “normal” memory is the memory system that is based on words. From the time we are born we develop new categories of information, and all new information gets placed into established categories, not unlike having a filing cabinet in our minds. We talk in words, of course, but we also think with words. The person we identify as “me” is the person who thinks and has language. The person who tells time is a person who has language. When we need to recall something, we go into the appropriate category and retrieve the information we need. 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.

It is our verbally based memory system that is particularly vulnerable to high levels of stress. When we are overwhelmed with fear, we lose the capacity for speech, we lose the capacity to put words to our 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.⁵⁴ Without words, the mind shifts to a mode of thinking that is characterized by visual, auditory, olfactory, and kinesthetic images, physical sensations, and strong feelings – the memory system more like that of our preverbal ancestors. 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 us with data about the circumstances surrounding the danger and making rapid comparisons to previous experience, we may have a vastly increased possibility of survival in the face of threat.

But 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 we can learn to override some of our responses.⁵⁵ Many researchers studying various survivor groups have noted this “engraving” of trauma.⁵⁶ Problems may arise later because the memory of the events that occurred under severe stress are not put into words and are not remembered in the normal way we remember other things. 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, un verbalized memories. During a flashback, people become overwhelmed with the same emotions that they felt at the time of the trauma. Flashbacks are likely to occur when people are upset, stressed, frightened, or aroused 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”.

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 become chronic pelvic pain. These have come to be known as “body memories”. Physical symptoms are not likely to be recognized by the sufferer or by 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 terror of the past and 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 awful feelings connected to the past trauma.

At the time of the trauma experienced “speechless terror” and their capacity to encode information in language was radically altered. As a result, they 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, they do not remember the experience, they relive it. Often the flashback is forgotten as quickly as it happens because the two memory systems are so disconnected from each other.

Over time, as people try to limit situations that promote hyperarousal and flashbacks, limit relationships which trigger emotions, and employ behaviors designed to control emotional responses, they may become progressively numb to all emotions, and feel depressed, alienated, empty, even dead. In this state, it takes greater and greater stimulation to feel a sense of being alive and they will often engage in all kinds of risk-taking behaviors since that is the only time they feel “inside” themselves once again.

If we cannot remember an experience we cannot learn from it. This is one of the most devastating aspects of prolonged stress. The stress-related functioning of the brain, life-saving under the immediate conditions of danger, becomes life threatening when the internal fragmentation that is the normal response to overwhelming trauma, is not healed. 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.^{57,58} 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 us 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. Without words, the traumatic past is experienced as being in the ever present “Now”. Words allow us to put the past more safely in the past where it belongs. Since a child’s capacity for verbalization is just developing, their ability to put their 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.⁵⁹ They show us what happened even when they cannot tell us. We call this automatic behavioral reliving of trauma, “traumatic reenactment”.

Other techniques may also promote integration in ways we do not yet entirely understand. Examples are eye movement desensitization or EMDR⁶⁰, trauma art⁶¹, journaling, movement therapy, and psychodrama.⁶²

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 tied in through the autonomic nervous system, with our emotions. However, people rarely do die from emotional upsets. A fundamental reason for such rarity, despite the extent of fearful circumstances that children and adults face, is the built-in “safety valve” that we call “dissociation”.

Dissociation is defined as “a disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment”⁶³. As an evolutionary add-on, dissociation provided us with a real advantage – it allows us to do more than one thing at a time. We can go on autopilot and automatically complete tasks that we have previously learned well, while we are focused on something else. This increase in efficiency may help explain why we evolved the ability in the first place.

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. In psychogenic fainting, the person dissociates consciousness – a dramatic way for the brain to say, “I can’t handle this”. We can also split off memories from conscious awareness and develop amnesia. Rarely, someone can develop amnesia for their entire identity and begin a separate life a phenomenon called a “fugue” state. More commonly people develop amnesia for parts of their lives or just for parts of certain overwhelming experiences.

But there is another way we can dissociate that is so common that almost everyone does it – splitting off experience from our feelings about that experience. So commonly do human beings cut off feelings about what happened to them while still remembering facts about the event, that often we have to look closely at the person before we recognize that there is something wrong: 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, we are likely to make comments 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.

We are able to cut off all our emotions but that usually happens only in extreme cases of repetitive and almost unendurable trauma and is known as “emotional numbing”. More commonly we cut-off or diminish specific emotional responses, based on the danger the emotion may present to continued functioning. Our emotions are intimately tied to the expression of

emotion through our facial expressions, our tone of voice and our gestures, so that we easily give away what we may be consciously trying to hide. If you grow up in a violent home, where every time you express anger you get beaten, it is best that you never show anger. If you grow up in a home – or a culture – that says that little boys who cry are wimps who should be taught a “lesson”, then it is a good idea to learn to never feel sadness, therefore minimizing the danger of tears. If any sign of pleasure or laughter is met with hostility and abuse, then it is best that you never feel joy. In this way, children from destructive situations learn how not to 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 that the emotion actually goes away. It does not. Emotions are built-in, part of our evolutionary, biological heritage and we cannot eliminate them, we can only transmute them and this may not be a good thing to do. There is an abundance of evidence from various sources that unexpressed emotions may be very damaging to one’s mental and physical health.⁶⁴

It is certainly clear that emotional numbing is damaging to relationships. We need all of our emotions available to us if we are to create and sustain healthy relationships with other people. If we cannot feel anger, we cannot adequately protect others and ourselves. If we cannot feel sadness, we cannot complete the work of mourning that helps us recover from losses so that we can form new attachments. If we cannot feel joy, life becomes empty and meaningless leading to an increased potential for detachment, alienation, suicide and homicide. This is yet another example of how a coping skill that is useful for survival under conditions of traumatic stress can become a serious liability.

As this process continues over time, we gradually may shut-off more and more of our normal functioning. We may dampen down any emotional experience that could lead back to the traumatic memory. We may withdraw from relationships that could trigger memories. We may curtail sensory and physical experiences that could remind us of the trauma. We may avoid engaging in any situations that could lead to remembering the trauma. At the same time, we may be compelled, completely outside of our awareness, to reenact the traumatic experience through our behavior. This increases the likelihood that instead of managing to avoid repeated trauma, we are likely to become revictimized.

As this process unfolds, our sense of who we are, how we fit into the world, how we relate to other people, and what the point of it all is, can become significantly limited in scope. As this occurs, we are likely to become increasingly depressed. These avoidance symptoms, along with the intrusive symptoms, like flashbacks and nightmares, comprise two of the interacting and escalating aspects of post-traumatic stress syndrome, set in the context of a more generalized physical hyperarousal. As these alternating symptoms come to dominate traumatized people’s lives, they feel more and more 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, then, that 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 are the ones who end up becoming significant threats to other people as well as themselves.

Children who are traumatized do not have developed coping skills, a developed sense of self, or self in relation to others. Their schemas for meaning, hope, faith, and purpose are not yet fully formed. They are in the process of developing a sense of right and wrong, of mercy balanced against justice. All of their cognitive processes, like their ability to make decisions, their problem-solving capacities, and learning skills are still being acquired. As a consequence, the responses to trauma are amplified because they 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. They fail to develop an ability to listen carefully to the messages of their body and their senses. Their sense of self becomes determined by the experiences they have had with care-taking adults and the trauma they have experienced teaches them that they are bad, worthless, a nuisance, or worse. Living in a system of contradictory and hypocritical values impairs the development of conscience, of a faith in justice, of a belief in the pursuit of truth. It should come as no surprise then, that these children so often end up as the maladjusted troublemakers that pose so many problems for teachers, schools, other children, and ultimately all of us.

ENDORPHINS AND STRESS - ADDICTION TO TRAUMA

Endorphins are some of the important neurochemicals that are released as part of the stress response. Endorphins play a role in social adjustment, providing relief from anxiety and distress. Endorphins are elevated when social support is increased and decreased when social support is withdrawn. Not only do endorphins calm anxiety, improve our mood, and decrease aggression, but they also are analgesics, chemically related to morphine and heroin. In times of stress, they provide enough pain relief that we are not disabled by injuries that would otherwise prevent us from escaping the danger. If people experience only rare episodes of overwhelming stress, then they are less likely to show alterations in this biochemical system. Far more problematic are those people who are exposed to repeated experiences of prolonged stress. These people, often children, experience repeatedly high levels of circulating endorphins and are likely to develop what has been termed "stress-induced analgesia".⁶⁵ 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 when the stress is relieved, much like someone who is withdrawing from heroin.^{66,67} This has been called “addiction to trauma”.⁶⁸

This helps us to understand many of the perplexing symptoms that have been incomprehensible without this information. For instance, stress-addicted children are likely to be those children in the classroom 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. Violence is exciting and stressful and 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.⁶⁹ These are children, who grow to be adults, unable to trust or be comforted by other people - in fact other people have been the fundamental source of their distress. Instead, they 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 of course, drug addiction.

TRAUMA-BONDING

Even more ominous for repeatedly traumatized people is their pronounced tendency to use highly abnormal and dangerous relationships as their normative idea of what relationships are supposed to be.⁷⁰ Trauma-bonding is a relationship based on terror and the twisting of normal attachment behavior into something perverse and cruel.⁷¹ People who are terrorized, whether as rape victims or as child victims of sexual abuse experience their abuser as being in total control of life and death. The perpetrator is the source of the pain and terror, but he is also the source of relief from that pain. He is the source of threat but he is also the source of hope. For victims of repetitive abuse, abusive relationships become the normative idea of what relationships are all about. 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 our primal need to repeat early childhood attachment behavior, even as adults.

TRAUMATIC REENACTMENT

It has long been recognized that “history repeats itself”, but never before have we so clearly understood why history does so. People who have been traumatized cannot heal themselves alone. It is one of the tragedies of human existence that what begin as life-saving coping skills end up

delivering us into the hands of compulsive repetition. We are destined to reenact what we cannot remember. Freud called it the repetition compulsion and he said, “He reproduces it not as a memory but as an action; he repeats it, without, of course, knowing that he is repeating... He cannot escape from this compulsion to repeat; and in the end we understand that this is his way of remembering”.⁷²

The very nature of traumatic information processing determines the reenactment behavior. As human beings, we are meant to function at our maximum level of integration and any barrier to this integration will produce some innate compensatory mechanism that allows us to overcome it. Splitting traumatic memories and feelings off into nonverbal images and sensations is life-saving in the short-term, but prevents full integration in the long-term.

Based on what we know about the split between verbal and nonverbal thought, it may be that the most useful way of understanding traumatic reenactment is through the language of drama. Shakespeare told us that the whole world is our stage, and with behavioral reenactments we see this in action. We reenact our past everywhere – at home, at school, at the workplace, on the playground, in the streets. We cue each other to play roles in our own personal dramas, secretly hoping that someone will give us a different script, a different outcome to the drama, depending on how damaging our experiences have been. The cure is in the disease.

The only way that the nonverbal brain can “speak” is through behaviors. If we look at reenactment behavior we can see that traumatized people are trying to repeatedly “tell their story” in very overt, or highly disguised ways. If only we could still interpret nonverbal messages, perhaps we could respond more adequately to this “call for help”. For healing to occur, victims must give words and meaning to their overwhelming experiences. In “Macbeth”, Shakespeare urges us to “Give sorrow words; the grief that does not speak whispers the o’er fraught heart and bids it break”. But they cannot find the words by themselves. That is the whole point - the traumatized person is cut off from language, deprived of the power of words, trapped in speechless terror.

Victims need the help, the words, the signals, of caring others, but to get our attention they must find some way to signal us about their distress in a language that has no words. This is the language of behavior, the language of the mime, of the stage. It is the language of symptoms, of pathology, of deviant behavior in all its forms. Unfortunately, we have largely lost the capacity for nonverbal interpretation, and so most of these “cries for help” fall on deaf ears. Instead, we judge, condemn, exclude and alienate the person who is behaving in an asocial, self-destructive, or antisocial way without hearing the meaning in the message. Trapped in a room with no exit signs, they hunker down and adapt to ever-worsening conditions, unaware that there are many opportunities for change and terrified that taking any risk to get out of the room could lead to something even worse.

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 upon 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 addictive substances. The response to threat has become so ingrained and automatic that victims experience control as beyond them and as their lives deteriorate, their responses become increasingly stereotyped and rigid.

THE CONSEQUENCES OF TRAUMATIC EXPERIENCE

Trauma theory helps us to understand the ways in which victims' bodies and minds respond normally to abnormal events and then become stuck, as a "state becomes a trait". PTSD has been described as a biopsychosocial trap in which one level of impairment prevents self-regulatory healing mechanisms from occurring on other levels.⁷³ As a result there are many different outcomes of exposure to overwhelming traumatic events, many of them damaging to physical, psychological, and social adjustment.

COMORBIDITY: THE MULTIPLE MASKS OF TRAUMA

TRAUMA AND MENTAL HEALTH

Children who are sexually assaulted demonstrate a number of adjustment problems.⁷⁴ In study after study the posttraumatic stress level of children who have been sexually abused is associated with level of child mental health functioning.⁷⁵ Sexually abused children are more likely to have sexual behavior problems that pose problems for them at home and at school and that may lead to perpetrator behavior directed at other children.⁷⁶ Children who have been both physically/sexually abused appear to be at highest risk of psychiatric disturbance including posttraumatic stress disorder, 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.^{77,78}

As traumatized children make the transition into adolescents, adjustment problems continue. In a study of a community sample of 1,490 adolescents, aged 12 to 19, were analyzed to investigate the relationship between a history of sexual abuse and adolescent functioning. Emotional problems, behavioral problems, suicidal thoughts and behavior of boys and girls with a history of sexual abuse were compared to those in a matched control group of boys and girls without such a history. Both sexually abused girls and boys

reported significantly more emotional problems, behavioral problems, suicidal thoughts and attempts than their non-abused counterparts. The results also indicated that the experience of sexual abuse carried far more consequences for boys than for girls regarding the use of alcohol, aggressive/criminal behavior, use of drugs, and the amount of truancy, as well as regarding suicidal thoughts and behavior. Whereas 2.6 percent of the non-abused boys reported a former suicide attempt, this percentage was 13 times higher for the sexually abused boys.⁷⁹ In another study of adolescents in residential treatment, sexually abused children had statistically and clinically higher evaluations on several MMPI-A scales compared to their non-abused counterparts.⁸⁰

Posttraumatic stress disorder is a chronic and often disabling condition. 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 percent and less than 25 percent in only five studies.⁸¹ 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.⁸² Almost one-third of all rape victims developed PTSD sometime during their lifetimes and more than one in ten rape victims still had PTSD at the time of assessment. Rape victims were 6.2 times more likely to develop PTSD than women who had never been victims of crime. Additionally, investigators found that 30 percent of rape victims had experienced at least one major depressive episode in their lifetimes and 11 percent of all rape victims were experiencing a major depressive episode at the time of assessment. In contrast, only 10 percent of women never victimized by violent crime had ever had a major depressive episode and only 6 percent had a major depressive episode when assessed. Thus, rape victims were three times more likely than nonvictims 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 than non-crime victims to have contemplated suicide and 13 times more likely than non-crime victims to have actually made a suicide attempt. The fact that 13 percent 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.⁸³ 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. Nearly one rape victim in five (19.2 percent) had attempted suicide, whereas only 2.2 percent of nonvictims had done so. Most sexual assault victims' mental health problems came after their victimization.⁸⁴

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 virtually any other psychiatric disorder, particularly somatization disorder.⁸⁵ According to one study, somatization was found to be 90 times more likely in those with PTSD than in those without PTSD.⁸⁶ In one study those with PTSD were more than six times as likely to have some other psychiatric disorder.⁸⁷ The National Comorbidity Study showed that those with PTSD are almost eight times as likely to have three or more disorders – 88 percent of men and 79 percent of women with PTSD had a history of at least one other disorder.⁸⁸

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 more impairment on income and 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, consistent with many other studies of specific trauma groups. 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.⁸⁹

Men with PTSD are six to ten times more likely and women with PTSD are four to five times more likely, to have affective disorders than those without PTSD. Similar figures appear with anxiety disorders with men three to seven times more likely and women two to four times more likely to have another anxiety disorder along with their PTSD. A partial listing of some of the most recent comorbid studies is daunting: panic disorder and social phobia,^{90,91} borderline personality disorder,^{92,93,94} somatiform disorders,^{95,96} obsessive-compulsive disorder,^{97,98} and anxiety disorders.⁹⁹

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,^{100,101,102} panic disorder,¹⁰³ suicide attempts,¹⁰⁴ eating disorders,¹⁰⁵ depression, bulimia and generalized anxiety,¹⁰⁶ increased risk for lifetime diagnoses of major depression, panic disorder, phobia, somatization disorder, chronic pain and drug abuse.^{107, 108} In a review of all of the studies on the long-term consequences of sexual abuse after 1987, sexually abused subjects reported higher levels of general psychological distress and higher rates of both major psychological disorders and personality disorders than nonabused subjects.¹⁰⁹ 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, dysfunction and maladjustment including high-risk sexual behavior, and a greater tendency toward revictimization through adult sexual assault and physical partner violence.

One investigator has pointed out that there are at least ten other trauma-related disorders found in DSM-III-R including brief reactive psychosis, dissociative identity disorder, dissociative fugue, dissociative amnesia, conversion disorder, borderline personality disorder, depersonalization disorder, somatization disorder, dream anxiety disorder, and antisocial personality disorder.¹¹⁰ Additionally, many authors have commented upon the ways early childhood exposure to trauma and loss can skew character formation. The connection between borderline personality disorder and trauma, particularly childhood trauma has been studied by a number of authors.^{111,112,113,114}

The clinical picture for sexual abuse survivors, and other trauma victims who are exposed to repetitive trauma, is so complicated that clinicians working in the field have been attempting to develop a more coherent framework for understanding this multifaceted problem. 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. These symptom clusters have been demonstrated to differentiate acute adult onset trauma syndromes associated with disaster victims from adult victims of childhood interpersonal violence and abuse.^{115,116}

TRAUMA AND SUBSTANCE ABUSE

Another concurrent problem for victims of violence is the intimate connection between substance abuse and post-traumatic stress disorder. People with PTSD are two to three times more likely to have a substance abuse disorder. In a number of studies showing the relationship between PTSD and substance abuse, between 25% and 58% of those seeking substance abuse treatment also were comorbid for PTSD.¹¹⁷ Studies show that 27 percent –35 percent of adult sexual abuse victims have a history of alcohol abuse and 21 percent a history of drug abuse.¹¹⁸ In a subpopulation of female incest survivors who had been inpatients in psychiatric institutions, the numbers of substance abusers rose to 80 percent.¹¹⁹ Battered women are 15 times more likely to abuse alcohol.¹²⁰ 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.¹²¹

Approximately 50%-60% of women and 20% of men in chemical dependency recovery programs report having been victims of childhood sexual abuse.¹²² Estimates of the rate of PTSD among substance abusers varies between 12% and 34%, while for female substance abusers, the co-occurrence rate is 2-3 times as high.¹²³ Estimates are that as many as 75% of women in treatment for alcoholism have a history of sexual abuse.¹²⁴ 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.¹²⁵

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 in the three grades surveyed. 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 use to cope with painful emotions and to escape from problems.¹²⁶

SEXUAL ASSAULT AND NEUROBIOLOGICAL CHANGES

Evidence is accumulating about the nature and extent of psychobiological changes that are secondary to sexual assault. The results of this growing body of studies is disturbing, making clear that children's psychobiological development and adult function can be profoundly impacted 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; elevated levels of urinary catecholamines; and a twofold higher incidence of plasma antinuclear antibodies in the abused group and disproportionately high levels of illnesses and infections.¹²⁷ Other studies support the connection between the HPA 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.¹²⁸ Maltreated children with PTSD excreted significantly greater concentrations of urinary DA and NE over 24 hours than children with overanxious disorder and control.¹²⁹

In another series of studies, researchers looking for direct evidence of neurobiological abnormalities linked to early abuse. There was no difference between the abused and nonabused adolescents in the prevalence of abnormal neurological examinations or abnormal neuropsychological tests, but abnormal EEG studies were found in over 54% of the abused group compared to only 27% of the nonabused group. In further studies it has been demonstrated that abused children have reversed hemispheric asymmetry and greater left hemisphere coherence in contrast to nonabused children. In sum 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.¹³⁰ Other researchers propose that

childhood trauma alters limbic, mid-brain and brain structures through “use dependent” modifications secondary to prolonged alarm reactions.¹³¹

Sexually assaulted adults show profound psychobiological 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. MHPG appeared to be associated with injury-related rape characteristics, and symptoms of active avoidance, but not prior history.¹³² In a study of female patients diagnosed with borderline personality disorder and a past history of sustained childhood abuse, psychobiological indicators suggested that childhood exposure had negatively impacted the serotonin system.¹³³ Women who develop PTSD secondary to childhood sexual abuse show a much higher rate of neurologic soft sign scores than women who had also been sexually abused but did not have PTSD and 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 soft signs.¹³⁴

In fact, the list of biological abnormalities reported in posttraumatic stress disorder is awesomely large and growing. Baseline heart rate and blood pressure are increased. The HPA axis is dysregulated, blood triiodothyronine is increased, blood and urinary cortisol is decreased, platelet alpha₂-adrenergic receptor binding and platelet serotonin uptake is increased.¹³⁵ 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, abuse and neglect 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 physical conditions should raise a significant public health warning alarm. A partial listing of some of the most recent comorbid studies is impressive: fibromyalgia,¹³⁶ chronic pain,^{137, 138, 139} irritable bowel syndrome,^{140, 141} asthma,¹⁴² peptic ulcer,¹⁴³ other gastrointestinal illness,¹⁴⁴ chronic pelvic pain,^{145, 146, 147, 148} Child sexual abuse has been found to be comorbid with many later physical problems. A number of studies have found correlations between eating disorders,¹⁴⁹ chemical dependency,¹⁵⁰ irritable bowel syndrome,¹⁵¹ chronic pelvic pain,¹⁵² chronic pain and drug abuse.^{153, 154} There is now a science of stress-related disorders that details how stress impacts negatively on the body in a number of ways, producing short-term and long-term physical consequences.¹⁵⁵

As the field of psychoneuroimmunology expands, there is a growing body of information about the relationship between stress, traumatic stress, and the immune system. So far, we know that even mild stress impacts on the immune system.^{156, 157} There is evidence for a relationship in humans between stress and decreases in functional immune measures. Stress affects the numbers and percent of circulating white blood cells, immunoglobulin levels, and antibody titers to herpes viruses. There is also evidence that interpersonal stresses have a different impact from non-social 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 non-social events.¹⁵⁸ There is also substantial evidence that factors such as stress, negative emotion, clinical depression, social support, and repression/denial can negatively influence both cellular and humoral indicators of immune status and function. And, 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.¹⁵⁹ The interaction between stress and immunity is complex, mediated by the mind of the stressed, or distressed, individual, a mind that brings with it the abilities to filter and interpret information. Thus, concepts such as coping, control, helplessness, and hopelessness are required to understand the complex nature of the immune responses.¹⁶⁰

In primates, there is a large body of evidence that disruptions in social relationships have many immunological 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.¹⁶¹

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.¹⁶² Another group looked at conduct disordered, depressed, and normal adolescents and found out that there was a correlation between significant negative life events and lowered natural killer cell activity.¹⁶³

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 divided into categories that included physical, sexual and emotional abuse, witnessing violence against one's mother, 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.¹⁶⁴

Although 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.¹⁶⁵ In an interesting study from Sweden, all patients who visited a Department of Obstetrics and Gynecology over a 2-week period were sent a questionnaire about experiences of sexual/physical abuse and the Traumatic Event Scale, assessing PTSD. Of 649 patients, 26.3 percent showed a history of sexual or physical abuse in childhood or adulthood. Almost 5 percent met PTSD criteria, and PTSD was associated with multiple experiences of abuse. The amount of abuse and how recently the abuse had occurred helped determine the frequency of PTSD symptoms. PTSD participants reported more visits to a physician than abused non-PTSD and nonabused participants. The PTSD group reported less satisfaction than the other two groups with both contact with the physician and with the help they received during visits to the clinic.¹⁶⁶

In a study of women suffering from severe PMS, at least one attempted or completed sexual abuse event was reported by 95 percent of the women, with 81 percent reporting completed penetration against their will and 85 percent of these sustaining physical threat or harm. Compared to prior studies of sexually abused women in general populations, these women were abused earlier in life, more frequently, and by similar types of offenders. Most of the abused women were estimated to have PTSD and most had never disclosed the abuse to a health practitioner.¹⁶⁷

Sexual abuse and assault takes 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 were sexually abused in adulthood were more sexually dissatisfied and nonsensual than women who had no history of sexual abuse. In addition, women who had a history of sexual abuse in childhood or adulthood were less satisfied with the overall quality of their most recent sexual relationship than non-abused women and had higher numbers of unsafe sexual partners.¹⁶⁸ 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 that reported abuse were more likely to have visited a physician due to physical injuries secondary to the sexual activity. Self-reported sexual abuse was also associated with poorer social adjustment, and higher sexual neuroticism. Further, the higher the frequency of abuse, the poorer the body image of the abused male participants.¹⁶⁹

In a paper looking at the relationship between preterm labor problems and a past history of sexual assault, investigators noted anecdotal reports linking adverse pregnancy outcomes with childhood sexual abuse, hypothesizing that CRH dysregulation may be the primary mechanism.¹⁷⁰ According to a national probability sample, the national rape-related pregnancy rate is 5.0 percent per rape among victims of reproductive age (aged 12 to 45); among adult women an estimated 32,101 pregnancies result from rape each year. Among 34 cases of rape-related pregnancy, the majority occurred among adolescents and resulted from assault by a known, often related perpetrator. Only 11.7 percent of these victims received immediate medical attention after the assault, and 47.1 percent received no medical attention related to the rape. A total 32.4 percent of these victims did not discover they were pregnant until they had already entered the second trimester; 32.2 percent opted to keep the infant whereas 50 percent underwent abortion and 5.9 percent placed the infant for adoption; an additional 11.8 percent had spontaneous abortion.¹⁷¹ Consistent with these findings, another study demonstrated that child sexual abuse is a significant risk factor for early pregnancy.¹⁷²

Internists specializing in gastrointestinal disorders have been noticing the connection between chronic disorders and a past history of childhood abuse.¹⁷³ One study looked at 239 female patients presenting to a gastroenterology clinic. They found that 66.5% of the women had experienced sexual and/or sexual abuse and that the women with a sexual abuse history had more pain, other somatic symptoms, bed disability days, lifetime surgeries, and functional disabilities than those without sexual abuse. Women with physical abuse also had worse health outcome on most indicators, while rape and life threatening physical abuse seem to have worse health effects than less serious physical violence and milder forms of sexual abuse^{174,175}. In studies of irritable bowel syndrome the IBS patients have an exaggerated responsivity of the gastrointestinal tract to mental stress.¹⁷⁶

In a study of women with fibromyalgia, 57 percent of the patients reported a history of sexual or physical abuse and compared to non-abused patients, abused patients reported significantly greater utilization of outpatient health care services for problems other than fibromyalgia and greater use of medications for pain. Abused patients also were characterized by significantly greater pain, fatigue, functional disability, and stress.¹⁷⁷

Physicians have also become interested in the relationship between chronic pelvic pain, irritable bowel syndrome, and a past history of abuse. They found that compared to women with irritable bowel syndrome alone, those with both irritable bowel syndrome and chronic pelvic pain were significantly more likely to have a lifetime history of dysthymic disorder, current and lifetime panic disorder, somatization disorder, childhood sexual abuse and hysterectomy.¹⁷⁸

Another study looked at the connection between chronic intractable pain and histories of childhood sexual abuse in 112 women sampled from a large university campus health center. Fifty-nine women with chronic back pain were sampled and compared with 53 control subjects obtained simultaneously from the same clinical population. The women with chronic intractable back pain had a significantly higher percentage of childhood sexual abuse experiences than controls.¹⁷⁹ In another study of chronic pain and health care utilization, 69 percent of the women who had experienced childhood sexual abuse, reported a chronic painful condition lasting more than three months, compared to 43 percent of the combined control groups. Women, who had experienced childhood sexual abuse reported a greater number of painful body areas, more diffuse pain and more diagnoses of fibromyalgia. They had more surgeries, hospitalizations, and family physician visits. Women with a history of childhood sexual abuse reported more chronic pain symptoms and utilized more health care resources compared to nonabused control subjects.¹⁸⁰

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.¹⁸¹ Sexual assault even affects health on a routine basis. In a study looking at sexual abuse survivors' stress tolerance, during the 5 days preceding a highly stressful day, women in the sexual abuse group reported significantly more physical symptoms than during the 5 days preceding a day of low stress. For the no abuse group, there were no significant differences in reported physical symptoms between high- and low-stress days. This pattern of results suggests that 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.¹⁸²

In studies looking at the long-term physical health consequences of criminal victimization, among a population of almost 400 adult women, investigators found that compared with nonvictims, victimized women reported more distress, less well-being, visited the doctor twice as frequently and had outpatient costs that were 2.5 times greater.¹⁸³ They also studied almost 2300 women in a health maintenance organization. They had a 45% response rate to their survey and 57% of them had been victims of crime. Rape incidence was approximately 15 times higher than the National Crime Survey estimates for women. Medical care had been sought by 92% of crime victims during the first year following the crime and by 100% during the second year.¹⁸⁴

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 the age of 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 1st year of college.¹⁸⁵ 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; and because exposure to childhood sexual abuse may encourage early onset sexual activity which places those exposed at greater sexual risk over the period of adolescence.¹⁸⁶ Survivors of child sexual abuse are more likely to report unwanted sexual intercourse by acquaintances due to force and are more likely to report unwanted intercourse with both acquaintances and strangers due to the misuse of the perpetrator's authority. They are also more likely to experience unwanted fondling and oral-genital contact with acquaintances in the context of misuse of authority by the perpetrator and use of alcohol or drugs by the victim.^{187,188}

PROSTITUTION

Prostitution can be thought of as a special case of revictimization experience for many sexually abused children and adults. Study after study show 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.¹⁸⁹ In a study of 130 prostitutes working in San Francisco, 57 percent reported that they had been sexually assaulted as children.¹⁹⁰ Among children who were sexually abused, the odds are 27.7 times higher that they will be arrested for prostitution as an adult than non-victims.¹⁹¹

VICTIM TO VICTIMIZER BEHAVIOR

When we understand the effects of trauma it becomes possible to grasp how someone could be victimized and become a victimizer instead. A victim is both helpless and powerless, and as we have seen, helplessness is a noxious human experience. Human beings will do anything to avoid feeling powerless. If you have been victimized, one of the possible outcomes is to assume the power of the one who has hurt you 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 – you cannot be a victim and still be considered masculine. In contrast, the traditional definition of femininity not only allows for but also encourages, powerlessness 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.¹⁹² According to several sources, 51%-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 twelve college men surveyed had committed acts that met the legal definition of rape; 84% of these men said what they did was definitely not rape.¹⁹³

The strong connection between child abuse, particularly child sexual abuse, and later sexual offending is still being studied. The neglect of this important topic can probably be attributed to, or is at least consistent with, our 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.

Comparing long-term gender differences, there seems to be a greater likelihood that men who were sexually abused as children will express some sexual interest in children.¹⁹⁴ In looking at the official criminal histories for a large sample of substantiated cases of physical and sexual abuse and neglect - 908 cases - from the years 1967 through 1971 in a U. S. Midwestern county, investigators compared them to individuals with no official record of abuse or neglect. Childhood victimization increased overall risk for violent offending and particularly increased the risk for males and blacks.¹⁹⁵ When the investigators looked at all these cases to see if they could uncover the incidence of antisocial personality symptoms in adulthood, they discovered that childhood victimization was a significant predictor of the number of lifetime symptoms of antisocial personality disorder and of a diagnosis of antisocial personality disorder.¹⁹⁶

A sample of 595 men were administered self-report assessments of childhood sexual and physical abuse and perpetration history. Including noncontact forms of sexual abuse, 11 percent of the men reported sexual abuse alone, 17 percent reported physical abuse alone, and 17 percent reported both sexual and physical abuse. Of the 257 men in the sample who reported some form of childhood abuse, 38 percent reported some form of perpetration themselves, either sexual or physical; of the 126 perpetrators, 70 percent reported having been abused in childhood. Thus, most perpetrators were abused, but most abused men did not perpetrate.¹⁹⁷

Another group of researchers studied children aged 9-14 years of age 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.¹⁹⁸ Another study examined the relationship between prior victimization and subsequent sexual abuse of others in a group of male adolescent sex offenders. It was hypothesized that adolescent sexual offenders were more likely to repeat the behaviors they had experienced as victims and that the characteristics of victims were more likely to be reflective of their own victim experiences. The results supported the hypotheses.¹⁹⁹

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, less than 6% of those who victimized adults reported such backgrounds. Among all violent offenders with a history of having been sexually abused, nearly half had child victims. Among all violent offenders with a history of having been physically abused, nearly 30% had child victims. Among violent offenders with no history of physical or sexual abuse, 15.5% had child victims. About 95% of child victimizers and 86% of adult victimizers who reported having been abused physically or sexually said that such abuse had occurred while they were children. Among those who suffered physical or sexual abuse before age 18, 36% had child victims; among those who suffered abuse after entering adulthood, 13% had child victims. For about 9 out of 10 violent offenders experiencing prior physical or sexual abuse, the abuser was someone they had known. For both inmates with child victims and inmates with adult victims, about half reported that the abuse they suffered was by a parent or guardian.²⁰⁰

In a study of serial rapists serving time in U.S. 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. When they obtained more details from the men on their sexual activities as boys, they found that 51% re-enacted their own abuse as a preadolescent with their earliest victims being girls they knew in the neighborhood, their sisters, or a girlfriend. Rape fantasies in mid-adolescence emerged as behaviors of spying, fetish burglaries, molestations, and rapes. Finally, the repetition of these juvenile behaviors established a pattern of criminal behavior as they sought out their next group of victims - strangers.²⁰¹

When investigators looked at men on death row, they found a history of family violence in all the cases including severe physical and/or sexual abuse in 14 of 16 cases; and 13 cases of severe physical and/or sexual abuse while in foster care or under state youth authority jurisdiction.²⁰²

SEXUAL ASSAULT AND PARENTING

One of the most pernicious aspects of violence is its multigenerational impact. Violence in one generation quite often leads to violence in the next, and there is now a great deal of evidence to support this finding. Parenting behavior can be profoundly affected by the impact of trauma.

Mary Main and her colleagues 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 her rejection of her own infant as observed in the laboratory and at the same time 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.²⁰³

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.²⁰⁴ 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 another study looking at the ability of abusive mothers to read their infants emotional states, abusive mothers were more likely than the comparison group to incorrectly identify specific emotion signals and to label negative affect as positive.²⁰⁵ 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. The authors concluded that their findings support aggression models of child abuse which suggest that the lack of empathy and the presence of negative emotion precede abusive behavior and that high-risk parents are more susceptible to the emotional contagion effects of a distressed child, since they are more likely than the low-risk parents to actually experience the same distressed emotion as the child while being unable to respond empathically to the child.²⁰⁶

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.²⁰⁷ 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 towards 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.²⁰⁸

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 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.²⁰⁹

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.²¹⁰ Another study examined characteristics of mothers of boys who sexually abuse. Depression, child abuse histories, and current attributions were investigated for 80 mothers of boys in three abuse referral groups-victimized perpetrators, non-victimized perpetrators, and victim only-in comparison with a group of boys showing externalizing behaviors. Sexual victimization in their own childhood was reported by 55 percent of mothers of perpetrators and 30 percent of mothers of victims. High rates of spouse abuse were reported by both mothers of perpetrators (72 percent) and mothers of victims (50 percent).²¹¹

When researchers looked at the rate of PTSD among maltreated children and their mothers, posttraumatic stress disorder was significantly over represented 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.²¹² These findings among mothers have been supported by findings of impaired parenting skills in fathers as well. In a sample of 1,200 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.²¹³ 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 than mothers in the control group after even a relatively mild stressor.^{214,215}

Although this physiological arousal is probably part of the explanation for these detrimental parenting effects, cognition is also involved. Mothers who were physically abused as children attributed more negative characteristics to their memories of the past, others, and themselves and their attachments

to their infants was less secure.²¹⁶ Physically abusive and nonabusive mothers were also studied for differences in perceptions of the parenting role and of child behavior problems. Findings suggested systematic differences in attributional style of the abusive mothers, supporting the hypothesis that such mothers are hyperreactive to their children's misbehavior. These mothers also tended to minimize both their own contribution to negative parent-child interactions and their children's role in positive ones.²¹⁷

There is a clear connection between the development of borderline personality disorder and child abuse, particularly child sexual abuse. When mothers with borderline personality disorder become parents, as compared with controls, they have more psychiatric diagnoses, more impulse control disorders, a higher frequency of evolving borderline personality disorder in their children and lower Child Global Assessment Schedule scores.²¹⁸

Lest we focus too much on the mother as the abusive parent, other studies have supported the close connection between child abuse and domestic violence. In one study of abused children, 59.4% of the mothers were considered to be highly suggestive of current or previous victimization. The rate of violence against single mothers of child abuse victims was four times the rate of those who were married.²¹⁹ In fact, in homes where domestic violence occurs, children are at 1500% greater risk of child abuse than the national average.²²⁰

A review of child abuse studies supports 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 more likely to have had a nonabusive and more stable, emotionally supportive, and satisfying relationship with a mate. Abused mothers who re-enacted their maltreatment with their own children experienced significantly more life stress and were more anxious, dependent, immature, and depressed.²²¹ 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.²²²

THE COST OF SEXUAL ASSAULT

In 1996, the National Institute of Justice calculated the costs and consequences of personal violent crime in America using figures from 1987 and dollars valued at 1989 prices. Every incident of child sexual assault has been estimated to cost the victim and society at least \$99,000.²²³ The total

estimated cost for child rape and other sexual abuse was \$23 billion. Despite this, at the most, only half of the child abuse victims receive mental health care.²²⁴ And as newspaper accounts frequently tell us, child protective services are woefully inadequate and focused on investigation rather than on providing services – even though the total U.S. spending on child welfare services is about \$22 billion.^{225,226}

And what are we doing about this enormous problem? Not nearly enough. Let's take one graphic example. The annual incidences of cancer and child abuse are approximately equal. The annual budget for the National Cancer Research Institute is \$2300 million. In contrast, the annual budgets for all national programs related to child abuse by the National Institutes of Mental Health, the National Institute for Child Health and Human Development, the National Institute for Drug Abuse, and the Center for Disease Control in 1992 amounted to only \$14.2 million.²²⁷

According to National Institute of Justice findings, in 1987 physical injury to people age twelve and older as a result of rape, robbery, assault, murder, and arson caused about \$10 billion in potential health-related costs, including some unmet mental health care needs. This led to \$23 billion in lost productivity and almost \$145 billion in reduced quality of life. If associated deaths and cases resulting in psychological injury only are included, costs average \$47,000 for rape, \$19,000 for robbery, \$15,000 for assault, and \$25,000 for arson. Considering only survivors with physical injury, each rape cost society \$60,000. Lifetime costs for all intentional injuries totaled \$178 billion during 1987-1990.²²⁸ When the cost of pain, suffering, and the reduced quality of life were taken into consideration, the cost of crime to victims in the United States is an estimated \$450 billion a year.²²⁹

SUMMARY

The sexual assault of children and adults in the United States is a pressing public health problem of extraordinary proportions. At least 20 percent of American women and 10 percent 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 psychobiological 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.

CONCLUSION: CREATING SANCTUARY

Creating Sanctuary refers to the process involved in creating safe environments that promote healing and sustain human growth, learning, and health.²³⁰ The problem of sexual assault is so great, affects so many children and adults, that it is no longer acceptable to pretend that all we need do is 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 of our social institutions need to 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 what we know about 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 our position vis-à-vis other people in this way radically shifts the perspective we take on ourselves and others, moving us 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 psychological 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.²³¹ A recovery paradigm for the complex problems that accompany overwhelming trauma provide the survivor with the single component that is often missing from treatment: *HOPE*. When people receive understanding and compassion from others it enables them to begin their way down the long road of understanding – and changing – themselves.

We have come to believe that in order to create safe, living-learning environments, any group of people must come to share the same basic assumptions, goals, and practice utilizing a shared language. A large part of the dilemmas currently facing us in all our communities is that we have not defined what – if anything – we share in common. We have not yet hammered out agreements, resolved conflicts, or untangled contradictions about even the most fundamental rules of how we are supposed to behave towards each other, what is allowed and what is forbidden. Without such basic structure, we cannot expect that our problem solving will be effective – it is set on too unstable a ground.

The first and most essential assumption must be the human need for safety. The definition of safety, however includes not just physical safety, but psychological, social and moral safety as well. Psychological 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, psychological and social safety. An environment cannot be truly safe unless all of these levels of safety are addressed. As we can see all around us, a focus on physical safety alone results in us living in an armed fortress, paranoid and alienated from others.

Safety involves not just prohibitions against violence to others but also prohibitions against the immediate and more long-term forms of self-destruction, i.e. suicide and substance abuse. In a connected community, the violence you do to yourself and your own body also affects me. Violence is violence even if it takes the form of cutting one's own wrists, or abusing one's own body in other ways. Sexism, racism, poverty, homelessness, and hate speech can all be seen as forms of injustice and violence against the heart and soul of a people and a community. The real challenge is how to establish and maintain safety without invoking punitive, violent, and restrictive measures that add to the problem.

What we have learned about 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 loss of volume control that accompanies traumatic exposure implies that we need to understand that many of the behaviors that are socially objectionable and even destructive are also the individual's only method of coping with overwhelming and uncontrollable emotions. If they are to stop using these coping skills, then they must be offered better substitutes, most importantly, healthy and sustaining human relationships. Blaming and punishment is thus counterproductive to the goals that we hope to achieve – they just tend to make things worse.

Since we know that quality thinking under stress is almost impossible, then in formulating intervention strategies, every effort should be made to reduce stress whenever good decisions are sought. It also means that we need to look at the growing sources of social stress that are inflicted on individuals and families at home, in the workplace, and in the community and evaluate what kinds of buffers can be put into place that help attenuate the effects of these stressors.

The memory problems that are a consequence of overwhelming stress imply that environments designed to intervene in the lives of suffering people must provide an abundance of opportunities for people to talk, and talk and talk about their experiences, their past lives, their conflicts, their feelings. It means that programs that focus on nonverbal expression – a description that includes art, music, movement, and theatre programs as well as sports – are vital adjuncts to any community 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”.²³²

When we wrestle with the potent impact that trauma has on the emotions of survivors, then we must recognize how important it is to develop techniques for helping people manage their emotions more effectively. We need to create systems that build and reinforce the acquisition of what Goleman has termed “emotional intelligence”.²³³ We need to recognize that many of the maladaptive symptoms that plague our social environment are the result of the individual’s attempt to manage overwhelming emotions, effective in the short-run, 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. Physiological stability cannot be achieved as long as the person is on an emotional roller coaster of stimulus and response. 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. Our 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”, “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. We understand now that trauma survivors must grieve and that the consequences for not grieving are enormous. Unresolved grief prevents recovery from both psychological and physical problems that are the outcome of exposure to 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 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, that we are free to change and grow regardless of how trapped, imprisoned, or violated we have been in the past. For the demoralized and depleted trauma survivor, other people must advance this

vision of freedom. Ultimately, though we know that history tends to repeat itself, we must help each other counter the conservative tendency to maintain the status quo when the status quo replicates trauma. To counter long standing habits, we need to develop systems of compassionate regard and find ways to translate the nonverbal message of the survivor into a verbal understanding that can be shared, while still insisting on healthy change and behavior that is socialized, responsible, and nonviolent.

Social influence is a powerful force in human organization and can be used for both positive and negative purposes. Any healthy human group will make an effort to maximize the positive aspects of social influence and group pressure and minimize the negative. Since every community organization must share assumptions, goals and practices, every group must make it a priority to create its own “constitution”, establishing its mission, its goals, and the way it intends to go about achieving those goals.²³⁴ Since order and law is the basis of all civilization, a basic tenet of such a constitution must be nonviolence – and that tenet is not negotiable. No form of violence is acceptable, regardless of whether it is verbal, physical, sexual, social or economic. Violence must be viewed not as an individual problem, but a symptom of the breakdown of the social order and therefore a problem for the group. Every act of violence, be it physical, sexual, emotional or verbal, must be analyzed, understood, and addressed as a problem of and for the entire community to resolve – nonviolently.

Sexual assault is one of the most basic violations one human being can inflict on another. For far too long in our social history, 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 – because they have the power to do so.²³⁵ 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 our society continue to justify and support abusive power in all of its forms.

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