

He that conceals his grief finds no remedy for it.
Turkish proverb

The term “traumatic stress” generally refers to the physical and emotional response of an individual to events that threaten the life or physical/psychological integrity of that person or of someone critically important to him or her. **Traumatic stress characteristically produces intense physical and emotional reactions, including an overwhelming sense of terror, helplessness, and horror,** and a range of physical sensations such as a pounding heart, trembling, dizziness, nausea, dry mouth and throat, and loss of bladder or bowel control.

In children and adolescents, traumatic stress can be triggered by a wide range of experiences, including:

- Physical, sexual, or emotional abuse¹
- Neglect (failure to provide for a child’s basic physical, medical, educational, and emotional needs)
- Interpersonal violence or victimization (e.g., assault, rape)²
- Community violence (e.g., gang violence, riots, school shootings)³⁻⁶
- Natural disasters (e.g., hurricanes, floods, tornadoes)^{7,8}
- Terrorism^{9,10}
- Traumatic loss or grief (e.g., murder of a parent or sibling, death of a parent in battle)^{9,11-15}
- Medical trauma (e.g., severe injury, life-threatening illness)¹⁶⁻¹⁸
- Accidents¹⁶

The short- and long-term impact of any given traumatic event depends partly on the objective nature of the event, and partly on the individual’s subjective response to it. For example, the traumatic impact of interpersonal events such as physical or sexual abuse or victimization may vary depending on factors such as the identity of the perpetrator, the frequency of the abuse, and whether force was used. Not every distressing event results in traumatic stress, and something that is traumatic for one person may not be traumatic for another.

Types of Traumatic Stress

A single, time-limited traumatic event is called an *acute trauma*. A natural disaster, motor vehicle accident, physical or sexual assault, or a school shooting are all examples of acute traumas. Over the course of even a brief event, a child or adolescent may go through a variety of complicated sensations, thoughts, feelings, and physical responses that are frightening in and of themselves and contribute to his or her sense of being overwhelmed.

The loss of someone critically important (e.g. a parent, sibling, or close friend) is an acute event that can lead to a traumatic stress reaction known as *traumatic grief*. Although all adolescents grieve after the death of a loved one, traumatic grief occurs when the teen experiences the death/loss as a traumatic event and experiences many of the symptoms of PTSD (e.g., intrusive thoughts about the death, increased physical agitation, emotional numbing).¹³⁻¹⁵ These symptoms hinder the natural bereavement process, can cause interference in daily functioning, and do not allow the teen to process and, eventually, let go of the loss.¹³⁻¹⁵ Traumatic grief is often complicated by the secondary consequences of the loss, such as moving in with grandparents after the loss of a parent.¹⁴

The experience of multiple traumatic events is referred to as *chronic trauma*. Chronic trauma may encompass several different events—such as exposure to domestic violence, involvement in a serious car accident, and exposure to gang-related violence—or longstanding trauma such as physical abuse or war. One common form of chronic trauma is child neglect.

The effects of chronic trauma tend to be cumulative, because each event serves as a reminder of the prior trauma and reinforces its negative impact. A child or adolescent who has been exposed to a series of traumas may become increasingly overwhelmed with each subsequent event and more convinced that the world is not a safe place. Over time, he or she may also become less able to tolerate ordinary everyday stress.

A Word about Trauma Reminders

Trauma reminders are people, situations, places, or things that evoke past traumatic events. When faced with trauma reminders, adolescents may reexperience the intense and disturbing feelings tied to the original event. Sometimes adolescents are aware of their reaction and its connection to the original event. More often, however, they are unaware of the root cause of their feelings, and may even feel frightened by the intensity of their reaction. As a result, traumatized teens may:

- Respond recklessly, taking more risks or abusing drugs or alcohol
- Withdraw from activities, places and friends in an effort to avoid reminders
- Fear that their strong reactions mean they are “going crazy”
- Feel stigmatized by having gone through traumatic events, and feel that they cannot talk about them

Complex trauma is a term used by some experts to describe both *exposure* to chronic trauma—usually caused by adults entrusted with the child’s care, such as parents or caregivers—and the *impact* of such exposure on the person.¹⁹ Children and adolescents who have experienced complex trauma have endured multiple traumatic events (such as physical or sexual abuse, profound neglect, or community violence) from a very young age (typically younger than age 5).

When trauma is associated with the failure of those who should be caring for a child, it has profound effects on nearly every aspect of the child’s development and functioning. Children and adolescents who have experienced complex trauma often display a range of social, developmental, and physical impairments, including:

- Social isolation and difficulty relating to and empathizing with others
- Unexplained physical symptoms and increased medical problems (e.g., asthma, skin problems, and autoimmune disorders)
- Difficulty in regulating emotion and knowing and describing their feelings and internal states
- Poor impulse control, self-destructive behavior, and aggression
- Sleep disturbances
- Disturbed body image
- Low self-esteem, shame, and guilt

In some cases, traumatic stress reaches the level of clinically defined posttraumatic stress disorder (PTSD). According to the American Psychiatric Association, PTSD is characterized by episodes of *reexperiencing* the trauma (e.g., flashbacks, or intrusive thoughts), *avoidance* of situations that are reminiscent of the trauma, *emotional numbing*, and *increased arousal* (e.g., hypervigilance, irritability).²⁰ Numerous surveys have shown that children and adolescents who have experienced trauma are at particularly high risk of developing PTSD: **more than 75% of children who experience a school shooting, and approximately 90% of children who are sexually abused develop PTSD.**²¹ They may report ongoing fear that the event will occur again, persistent flashbacks and nightmares, avoidance of things that remind them of the event, being on edge all the time, and/or trouble sleeping.

The Prevalence of Trauma among Adolescents

Children and adolescents in the United States are routinely exposed to a wide range of potentially traumatic events. According to the National Survey of Adolescents (NSA):²

- Four out of 10 adolescents have witnessed violence
- Seventeen percent have been physically assaulted
- Eight percent have experienced sexual assault

The prevalence of trauma exposure is even higher among certain high-risk groups. For example, data gathered by the National Child Abuse and Neglect Data System has shown that Native American, Alaskan Native, African American, and mixed-race children have much higher rates of maltreatment (including neglect) as compared to their white (Hispanic or non-Hispanic) peers.²² The NSA found that **more than half of African American, Hispanic, and Native American adolescents have witnessed violence in their lifetimes.**² Other groups that are more likely to have experienced various forms of trauma include:

- Homeless youth^{23,24}
- Youth whose parents have a criminal record or history of mental illness²⁵, or whose older siblings are involved in “deviant behaviors” such as aggression, crime, or drug abuse²⁶
- Urban youth who have a high percentage of unmonitored and unstructured time, particularly time spent in the company of friends²⁷
- Lesbian, gay, bisexual, and transgender youth²⁸
- Refugee children and adolescents²⁹⁻³², particularly those not accompanied by a caregiver adult^{33,34}

Of course, many adolescents fit into more than one of the above categories, which places them at even greater risk.

The Impact of Trauma on Adolescent Development and Behavior

Trauma has been shown to adversely affect many of the neurobiological systems responsible for cognitive development and the regulation of emotions and behavior.³⁵⁻³⁷ In adolescents, this can mean delays in the developmental processes that would normally enable them to better consider the consequences of their behavior, to make more realistic appraisals of danger and safety, to moderate daily behavior to meet long-term goals, and to make increased use of abstract thinking for academic learning and problem-solving. As a result, adolescents suffering from traumatic stress or PTSD are prone to:

- Reckless and risk-taking behavior
- “Living for today and not tomorrow”

- Underachievement and school failure
- Making bad choices

In addition to the neurobiological impact of traumatic stress, **adolescents who have been exposed to trauma expend an enormous amount of emotional and mental energy responding to, coping with, and trying to coming to terms with the event** or events. This can reduce their capacity to master other age-appropriate developmental tasks. For example:

- A youth whose mind is occupied with intrusive images of traumatic events cannot focus on learning, and so lags behind in school
- A teen who is emotionally overwhelmed by reminders of traumatic events cannot devote his or her energies to forming relationships with peers
- A teen who is fearful of taking any risk cannot take on the challenges that lead to growth

The longer traumatic stress goes untreated, the greater the risk of developing maladaptive and potential dangerous coping mechanisms.

Implications for Substance Abuse Treatment

Adolescents turn to a number of potentially destructive behaviors in an effort to avoid or defuse the intense negative emotions that accompany traumatic stress, including compulsive sexual behavior, self-mutilation, bingeing and purging, and even attempted suicide. But arguably the most common maladaptive coping mechanism among traumatized adolescents is the abuse of alcohol or drugs.

Reported rates of substance abuse following trauma exposure range from 25% to 76%⁸⁻¹¹, and research has shown that more than half of young people with PTSD subsequently develop substance abuse problems.⁸⁻¹¹ A history of childhood sexual physical abuse has also been associated with the development and severity of alcohol disorders.³⁸

The presence of traumatic stress or PTSD greatly complicates the recovery process in adolescents with substance abuse disorders. In addition to the physically and psychologically addicting effects of alcohol and drugs, adolescents with co-occurring traumatic stress must deal with the sometimes overwhelming sequelae of their past traumas. For example, exposure to trauma reminders has been shown to increase drug cravings in people with co-occurring trauma and substance abuse.^{39,40}

Available evidence indicates that when substance abuse and traumatic stress are treated separately, adolescents with co-occurring disorders are more likely to relapse and revert to previous maladaptive coping strategies:

- In surveys of adolescents receiving substance abuse treatment, a history of victimization has consistently been associated with negative treatment outcomes^{41,42}
- Teens with a history of physical abuse are less likely to achieve posttreatment abstinence than teens without a trauma history⁴³
- Higher initial symptom severity among youth with co-occurring traumatic stress and substance abuse problems has been associated with more internal distress and violent behavior posttreatment⁴²

Research in adults with co-occurring trauma and substance abuse supports the same conclusion. In studies of adults receiving substance abuse treatment, individuals with co-occurring PTSD and substance abuse had higher relapse

Tony's Story*

Tony is a 17-year-old who lives at home with his mother and stepfather, who frequently argue, and his 14-year-old brother, Mikey. When Tony was 15, he saw his best friend, Curtis, shot in the cross-fire of gang-related violence in their neighborhood. After Curtis was attended to by the paramedics, Tony was allowed to ride in the ambulance to the hospital with Curtis. Curtis died in the ICU several hours later.

Tony was devastated, but believed that Curtis would have wanted him to stay strong; he tried to get back to his daily routine as quickly as possible. Before Curtis's death, Tony was doing pretty well in his classes and was on the school basketball team. However, he began to find it harder to focus in school and was having recurrent nightmares about Curtis's death that were making it difficult for him to sleep.

At a basketball party one weekend, a teammate offered Tony some Vicodin for a game-related injury. Tony took a couple of extra pills to help him fall asleep. On the way home from the party, he noticed that he no longer had the on-edge feeling he usually had when walking through his neighborhood. During the next week he discovered that Vicodin made it easier for him to deal with his brother when he was getting on his nerves. When he ran out of Vicodin, Tony checked around for another source and found a teammate who knew someone who was selling painkillers. Soon Tony started using these every day, sometimes skipping school when he'd sleep through his alarm. When his dealer offered him OxyContin, Tony switched and liked the stronger effect, but soon discovered that it cost a lot more money, so he started stealing from his parents. When the original amounts did not cause the same effect, he started crushing and snorting the pills for an even stronger effect, and he eventually tried injecting morphine.

Tony was placed on probation for missing so much school, and eventually the courts ordered drug counseling services. He went to an inpatient program for one month and then transitioned to a partial-day program. After being off drugs for some time, he started thinking more about his friend's horrific death and began to experience survivor guilt. His nightmares and hyperarousal returned and felt so unbearable that he soon began using again to gain temporary relief.

**"Tony" is a composite representation based on real teenage clients struggling with traumatic stress and substance abuse.*

rates than those with substance abuse problems alone⁴⁴, and initial PTSD severity was a significant predictor of relapse.^{45,46} Among adults with cocaine or alcohol dependence, patients with a history of PTSD were more likely to use following negative experiences (e.g., unpleasant emotions and/or physical discomfort) than those without PTSD.⁴⁷

Conclusions

Although the importance of addressing co-occurring substance abuse and traumatic stress is evident, ways of integrating these services are not as clear-cut. For example, some providers may feel that before being able to address underlying issues relating to trauma, it is important to treat substance abuse symptoms and limit the potential harm and threat to the individual. Conversely, some providers may feel that unless the individual learns strategies to manage distress associated with trauma, the likelihood of substance abuse relapse remains high.

Despite these challenges, better care can be achieved through increased communication and coordination among substance abuse professionals and mental health providers, and increased awareness of the links between adolescent traumatic stress and substance abuse. Substance abuse professionals need to remain aware of these links, and make trauma assessment an integral part of the services provided by agencies and individuals working with adolescents, particularly those at high risk of trauma exposure.

Trauma and Substance Abuse: Myths and Facts

MYTH: Attributing drug or alcohol use to stress just prevents adolescents from taking responsibility for their actions.

FACT: Defining the relationship between a youth's trauma history and his or her substance use can actually enhance his or her ability to take responsibility for his or her actions, particularly in adolescents who are reluctant to acknowledge that their substance use is a problem. In addition, the self-medication hypothesis can be extremely helpful in understanding both the origins of a youth's substance abuse and the factors that may lead to continued use or relapse.

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