

# Chapter 5

## Trauma and Substance Abuse

### Stress and Substance Abuse

In its most basic form, trauma creates stress. The state of being in stress is uncomfortable, thus causing a need to seek a return to homeostasis (Jacobsen, et al, 2001). The fact that there is a connection between trauma and substance abuse has been known for decades by professionals treating people who experience both trauma and substance abuse. The stress-reduction model of substance abuse posits that stress is managed by some people by intake of alcohol, tobacco, or other drugs (ATOD).

Stress is considered a major contributor to substance abuse initiation, continuation, and relapse (Brady & Sonne, 1999). Studies have consistently shown that there is a greater likelihood of alcohol and drug abuse when stress is high (Dawes et al, 2000; Sinha, Fuse, Aubin & O'Malley, 2000; Khantzian, 1985; Kosten, Rousaville, & Kleber, 1986).

Because trauma causes increased stress, it is reasonable to assume that trauma is also related to substance abuse initiation, continuation and relapse. Treatment and prevention professionals must also be aware that PTSD frequently co-occurs with anxiety disorders, depression, and alcohol or other substance abuse.

Research in the area of stress and substance abuse demonstrates:

- ❑ That stress increases risk for substance abuse and relapse.
- ❑ Addicts identify stress and distress as reasons for abusing substances and for relapse
- ❑ There are similar body neurological reactions to drugs and stress
- ❑ PTSD may develop following exposure to a severe traumatic event. (NIDA)

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## **SUBSTANCE ABUSE IS CONTRA-INDICATED**

Self-medication with substances is contra-indicated for survivors of trauma. Use of alcohol, tobacco, street drugs or a mis-use of prescription drugs is a negative coping mechanism. (SIDRAN Institute, Presentation at Syracuse Regional Conference, June 6, 2003). While it seems to provide some immediate relief from either anxiety or pain, in reality it complicates and confounds the healing and recovery process:

- it only provides temporary relief, if any at all;
- it often blocks necessary psychological processing and can prevent or delay the natural completion of the grieving process;
- it often results in lower functioning capacity resulting in poor choices and poor decisions and even behavioral dysfunction;
- rather than calming nerves, alcohol and other drugs can actually increase both anxiety and fears, they intensify and exaggerate emotions so they come out drug-affected... and long term use can even cause emotional stagnation;
- they can disrupt sleep, especially stage four or deep sleep, and they can increase nightmares and make them more vivid and believable;

Even the most minor use of these substances, unless by physician's prescription and under a strict medical protocol, can actually make the symptoms of trauma - especially the more severe symptoms associated with PTSD -- much more serious.

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One specific area of trauma and substance abuse that has been studied more than others is the area of sexual victimization and the impact on trauma-induced substance abuse. Because this is an area that was noted by prevention providers as likely to be encountered, the following section will present an examination of the literature.

## **Victimization**

High rates of past sexual abuse and corresponding substance abuse have long suggested the need for simultaneous treatment for trauma and substance abuse (Barnard, 1989; Evans and Schaeffer, 1980; Glover, 1999). Janikowski, Borderi, and Glover (1997) conducted a study of 732 participants in residential treatment facilities and concluded that 36.3% had histories of incest.

For traumatized persons, substance abuse was a means of managing distress symptoms such as recollections, nightmares, avoidance, numbing, low self-esteem. In addition, traumatic sexual abuse often leads to confusion about sexual identity, sex used as a means of giving and receiving attention, over-sexualization, and phobias related to sex.

Symptoms of sexual abuse among persons in substance abuse treatment facilities may be difficult to recognize since presenting symptoms frequently mirror those associated with substance abuse. Left untreated, victims of sexual abuse may use alcohol as a coping strategy to numb feelings and suppress painful, recurring memories as well as deal with overwhelming feelings of powerlessness, shame, and betrayal.

### **Powerlessness:**

Due to an inability to control sexual abuse, many continue to experience feelings of powerlessness into adulthood. Substance use serves to increase feelings of personal power and self-esteem. It serves to increase confidence and decrease anxiety of normal social interactions but also increases susceptibility toward further sexual assault reinforcing feelings of powerlessness.

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The cyclic substance abuse and sexual abuse spiral is evident without intervention. However, intervention must be handled carefully as discussions of past abuse may trigger painful memories and client may revert to substance abuse to handle memories

### **Shame and Stigmatization:**

Due to the climate of secrecy which generally accompanies sexual abuse, a shame-based sense of self may develop. Feeling of being bad, and at fault for the abuse are common. Feelings of being different can be eased with substance abuse and within the substance abuse environment in which one may feel accepted. Being connected to and accepted by others who abuse substances can lead to further stigmatization and shame increasing reliance upon substances to reduce negative feelings about the self. As the self-perception continues to be lowered, feeling of self-harm may increase. Substance use may facilitate the tendency to carry out such actions.

### **Betrayal**

A sense of worthlessness may develop from the failure of trusted adults to protect the abused child, a perceived failure of the self to protect the child-self. Adult relationships may rely upon drugs in order to allow the self to test the partner at the same time emotionally numbing or protecting the individual from experiencing further betrayal. Relationships that prove untrustworthy led to increased feelings of worthlessness and increased reliance upon substances to provide numbing or a false sense of increased self-esteem. Stimulants may be used to maintain hypervigilence in order to protect the self from further violations.

### **Issues specific to intervention and treatment.**

**Disclosure** - If clients feel that the relationship is trusted, they may disclose sexual abuse. Treatment professionals who are unprepared for such a disclosure may indicate to clients that the disclosure was a poor judgment and may retreat. This may increase feelings of shame surrounding abuse issues.

**Referral** - Appropriate referral is essential but may also interrupt the continuity of treatment and may increase feelings of powerlessness and helplessness.

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**Abstinence** - if substances have been used to control symptoms of abuse, cessation may lead to uncontrolled recurrence of flashbacks and memories, negative emotions, sleep disturbance, and could increase self-destructive behaviors and lead to relapse. Intervention must therefore be carefully pursued.

## PTSD and Substance Abuse

PTSD may be difficult to recognize. One reason that people use and abuse substances is to avoid experiencing distress and painful memories. In fact, for some people, the substances are effective toward that end. However, the substance abuse causes difficulties in recognition of the PTSD due to the masking properties of substance abuse. In order to properly assess and treat the symptoms of PTSD it is therefore necessary that substance abuse cease. With cessation there are expectancies of increased symptomatology including recurrent and intrusive thoughts and memories of the trauma.

Research has demonstrated a strong relationship between PTSD and Substance Abuse. Andrew W. Meisler's article "Trauma, PTSD and Substance Abuse," which appeared in the PTSD Research Quarterly, provides a wealth of information about this subject. Dr. Meisler noted that "studies of individuals seeking treatment for PTSD have consistently found a high prevalence drug and/or alcohol abuse." Research has suggested "that 60-70% of treatment seeking Vietnam combat veterans with PTSD also met the criteria for current alcohol and/or drug abuse."

## Research on PTSD and Substance Abuse

The research on persons who abuse substances shows that there are higher rates of PTSD than exhibited in the general population.

- ❑ Estimates of lifetime substance abuse are from 21% to 43% for persons with PTSD. For persons without PTSD, lifetime substance abuse is estimated from 8% to 25%.
  
- ❑ Substance abusers have a rate of PTSD estimated at about 8%.

**However, the substance abuse causes difficulties in recognition of the PTSD due to the masking properties of substance abuse.**

- ❑ Substance abusing adolescents have a 20% rate of PTSD
- ❑ PTSD appears to be about 42% among persons in inpatient treatment for substance abuse.
- ❑ Pregnant women in residential treatment show a PTSD rate of about 60% (NIDA)
- ❑ Patients with PTSD commonly have substance use disorders (Jacobsen, Southwick, & Kosten, 2001)
- ❑ The onset of PTSD appears to precede the onset of substance use disorders (Chilcoat and Breslau, 1998)

## Working with Persons with PTSD and Substance Abuse

General guidelines for working effectively with clients who have co-existing PTSD and Substance Abuse:

- ❑ Know the client's interpersonal world
- ❑ Be aware of client's negative and positive reinforcers
- ❑ Be aware of client's social support system
- ❑ Be aware of alcohol and drug use of significant persons
- ❑ Assist with a decrease of associations with friends who abuse substances
- ❑ Assist with the creation of non-substance abusing acquaintances and supports
- ❑ Awareness of cultural role of substances and cultural experiences of the client
- ❑ Be aware of client's motivation for change.
- ❑ Assess client's readiness for change

(Penk, 1981; Penk & Robinowitz, 1987; 1989; Penk, 1993).

**Victims with coexisting disorders of substance abuse and PTSD need treatment for both disorders simultaneously**

## Treatment by Type of PTSD

Once abstinence is obtained, PTSD can be treated based upon the PTSD classification. PTSD is classified into 3 subtypes due to differences in etiology and development. Treatment for each subtype varies accordingly. (As reported in **“PTSD and Substance Abuse: Clinical Assessment Considerations”**, by Walter Penk, Ph.D., NCP Clinical Newsletter 3(3-4): Summer/Fall 1993.)

### **Chronic Chronic Type**

For subtype I, whose substance abuse and PTSD start quite early in life, it may be especially helpful to treat first with Liberman's (1992) Psychosocial Rehabilitation and then later with Marlatt and Gordon's (1985) Relapse Prevention Techniques--especially when delivered within a complex set of community support services (such as day hospitals, day treatment centers, social clubs, clubhouses, etc.)

### **Periodic Chronic Type**

Treatment for subtype II is quite different treatment programming is needed especially for clients with antisocial behaviors (for key references, see the American Psychiatric Association's four-volume work, *Treatment of Psychiatric Disorders*, 1990). For the person with lifetime addiction problems, there may be periodic exposure to stressful or life-threatening situations, usually associated with obtaining substances. Here, group techniques and therapeutic communities have been found helpful.

### **Chronic Periodic Type**

For subtype III, substance abuse may appear as a form of "self-medicating" PTSD symptoms. Assisting the client to find other ways to reduce PTSD symptoms (e.g., stress management, desensitization, implosive techniques, etc.) is recommended over the "self-medicating" use of illicit substances.

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## Treatments for Comorbid PTSD and Drug Abuse

There is no standard protocol for treatment of PTSD and substance abuse. Current treatments include the following:

**Detoxification** - Due to the likelihood that substance use cessation may trigger PTSD Symptoms, inpatient detoxification is considered optimal.

**Chemical Dependency Rehabilitation** - Inpatient, outpatient, or residential treatment for co-occurring disorders.

**Medication** - anti-depressant medications such as sertraline (Zoloft™), have been shown to be helpful in treating patients with co-occurring PTSD and substance use disorders.

**Psychotherapy** - studies show that patients who suffer from PTSD can improve with

- ❑ cognitive behavioral therapy to minimize negative behaviors based upon cognition that may be faulty.
- ❑ Group therapy to offer support from others who have undergone similar experiences
- ❑ Exposure therapy (to increase tolerance to negative triggers or stimuli). Currently exposure therapy is viewed as very promising because it allows the individual to gradually re-live the traumatic experience under controlled conditions, thus permitting the individual to work through the trauma
- ❑ Family therapy to offer emotional support, cognitive understandings, and behavioral modification of family functioning.

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## **Useful Assessment Tools**

The **MMPI** was developed in the late 1930s by a psychologist and a psychiatrist (Hathaway and McKinley) at the University of Michigan. The MMPI-2 is one of the most researched instruments, and has been consistently ranked one of the top two of all psychological instruments used by American Psychologists.

**Alcohol Acknowledgment Scale and Addiction Proneness Scale:**  
Butcher, Graham, Dahlstrom, Tellegen & Kaemmer, 1989)

**Clinician-Administered PTSD Scale (CAPS):** The Clinician-Administered PTSD Scale is a structured clinical interview designed to assess adults for the seventeen symptoms for PTSD outlined in the DSM-IV. It was one of the first diagnostic interviews for PTSD, and was developed by the National Center for PTSD. (For a copy of CAPS, contact the VA Medical Center and Regional Office Center, 215 North Main Street, White River Junction, VT 05009.)

**Level of Care Index:** Perhaps one of the most interesting new measures for addiction disorders is the Level of Care Index, developed by David Mee-Lee, Ph.D., and Norman G. Hoffman, Ph.D., distributed by CATOR/New Standards, Inc., St. Paul, Minnesota. The Index provides criteria assessing appropriate treatment setting assignments based upon scores in six areas. A self-administered self-report set of scales is available to assess similar domains. (RAATE, Mee-Lee, 1988.)

## **OTHER FINDINGS OF TRAUMA-RELATED SUBSTANCE ABUSE**

Research demonstrates a strong link between exposure to a traumatic event, and subsequent use/abuse problems. Many people who have experienced a “critical incident”, ex., rape, child abuse, an act of terrorism or natural catastrophe, have used alcohol, cigarettes, or street drugs - or misused prescription drugs, to “cope.” In the majority of instances, this translates into “self-medicating” with substances to help people deal with the emotional pain, nightmarish memories, eating and sleeping problems, and fears and anxieties.

In fact, **“research demonstrates that exposure to trauma puts an individual at four to five times greater risk of substance abuse, and stress is considered the number one cause of relapse to alcohol and drug abuse and addiction and smoking.”** (News Release: National Center on Addiction and Substance Abuse (CASA) at Columbia University.)

While the use of alcohol or drugs can provide a “temporary distraction or relief” for traumatized people who may be suffering from very serious and even debilitating problems across multiple areas of their lives, this relief is only temporary. Furthermore, the use of substances can be harmful. Substance abuse reduces a person’s ability to concentrate, to sleep restfully, to cope with traumatic memories and external stressors, and to fulfill roles in a generally productive manner.

According to “Traumatic Stress and Substance Abuse Problems”, (a pamphlet designed by the National Center for PTSD, and edited by the Public Education Committee of the International Society for Traumatic Stress Studies, Northbrook, IL, 2001).

- ❑ One quarter to three-quarters of people who have survived abusive or violent traumatic experiences report problematic alcohol use.
- ❑ One-tenth to one-third of people who survive accident, illness, or disaster related trauma report problematic alcohol use - especially when troubled by persistent health problems or pain.
- ❑ Up to 8-% of Vietnam veteran’s seeking PTSD treatment have problems related to alcohol use.
- ❑ Women exposed to traumatic life events show an increased risk for alcohol abuse.
- ❑ Men and women reporting sexual abuse have higher rates of alcohol and drug abuse than other men and women.
- ❑ Compared to adolescents who have not been sexually assaulted, adolescent sexual assault victims are 4-5 times more likely to experience marijuana abuse or dependence, and 9 times more likely to experience hard drug abuse or dependence.

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## Substance Abuse in New York City Following September 11<sup>th</sup>, 2001

September 11, 2001 has much to teach us about trauma and substance use and abuse. Survey results (funded by grants from NIDA, the United Way of New York City, and The New York Community Trust) indicate an increase in the use of tobacco, alcohol, and marijuana among the residents of Manhattan five to eight weeks after the terrorist attacks on the World Trade Center (WTC).

Specifically, the study found:

- 30% overall increase of substance use
- 25% increase in alcohol intake
- 10% increase in tobacco use
- 3% increase in marijuana use
- 20% reported at least one additional drink per day  
(June 1, 2002 issue of the *American Journal of Epidemiology*)
- A dramatic increase in sales of alcohol, tobacco and prescription drugs

Unfortunately, the immediate substance use response to the attacks remains unknown because research was begun 5 weeks after the occurrence.

The researchers, David Vlahov and Sandro Galea of the New York Academy of Medicine, found that:

1. People who reported an increase in substance abuse were more likely to suffer from post-traumatic stress disorder (PTSD) and from depression.
2. People who reported an increase in cigarette smoking or marijuana use were more likely to have both PTSD and depression.
3. People who reported an increase in alcohol use were more likely to have depression only.

Several factors seemed to link the likelihood of an increased use of substances.

- Closer proximity to the World Trade Center was a predictor of increased smoking.
- Panic attack symptoms were associated with substance use increases
- Being over age 65 was associated with alcohol use increase
- Income of less than \$20,000 per year was associated with alcohol increase
- Being divorced, separated, or widowed was associated with alcohol use increase

Equally informative are the factors NOT associated with substance abuse increase:

- displacement from home
- loss of possessions
- participation in rescue

Research demonstrated that in the 4-to-8 month post-trauma period after the Oklahoma City bombing, it was found that 16% of Oklahoma City bombing survivors had used alcohol to cope, and 40% used medication to cope. As reported in a study by the National Center on Addiction and Substance Abuse (CASA) at Columbia University, one year after the bombing, three times as many citizens of Oklahoma City reported increased drinking as those in a control community (Indianapolis). Oklahoma experienced a dramatic increase in the need for treatment services in the two years following the bombing, and the rescue workers in Oklahoma City experienced elevated rates of substance abuse, depression and suicide.

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A study of Persian Gulf War veterans found that “a PTSD diagnosis was strongly linked to problems with depression and substance abuse, supporting earlier research on comorbidity. Most importantly, body recovery and identification - two gruesome tasks - showed the strongest association with PTSD as an outcome, confirming that exposure to highly stressful event components is especially noxious.” (Meisler, Andrew, Trauma, PTSD and Substance Abuse, PTSD Research Quarterly, Fall 1996.)

According to “PTSD and Problems with Alcohol Use” by the National Center for PTSD:

- Being diagnosed with PTSD increases the risk of developing an alcohol use disorder.
- Women exposed to trauma show an increased risk for use disorder even if they are not experiencing PTSD.
- Men and women reporting sexual abuse have higher rates of alcohol and drug use disorders than other men and women.
- Twenty-five to seventy-five percent of those who have survived abusive or violent trauma also report problematic alcohol use.
- Ten to thirty-three percent of survivors of accidental, illness, or disaster trauma report problematic alcohol use, especially if they are troubled with persistent health problems or pain.

In research conducted by Spak, et.al., 1997, sexual abuse in childhood was found to be the strongest predictor of later alcohol and drug abuse. (Spak, L., F. Spak, et.al.,1997, “Factors in Childhood and youth predicting alcohol dependence and abuse in Swedish women; findings from a general population study.” Alcohol 32(3):267-74)

Adolescents who have been physically or sexually assaulted, who have witnessed violence, or who have family members with alcohol or drug problems were reported to have an increased risk for current substance abuse or dependency, and clearly, those with PTSD symptoms have an increased risk for marijuana and hard drug abuse/dependency. (Kilpatrick, D.G., R. Acierno, et al., "Risk factors for adolescent substance abuse and dependence: data from a national sample." Journal of Consulting Clinical Psychology, 68(1):19-30, 2000.)

In a research document called "Stress and Substance Abuse: A Special Report," the National Institute of Drug Abuse highlighted numerous studies elucidating a scientific basis for the clinical observations that people exposed to stress, stressors and life crises are likely to abuse alcohol and other drugs, and are more vulnerable for self-administration. High stress was found to be predictive of continued drug use, and stress was found to be the number one cause of relapse for recovering individuals. (Stress and Substance Abuse: A Special Report, National Institute on Drug Abuse.)

The National Center for Post-Traumatic Stress Disorders has conceptualized the main issues of this topic as follows:

- Increase in problematic alcohol use.
- Increase in use of alcohol as a trauma coping mechanism.
- Increase in prescription medications as a coping mechanism.
- Increase in pain medication use for physical pain.
- Difficulty in understanding trauma-related substance use due to paucity of research.

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## **Current Research on Trauma and Substance Abuse**

Traditionally, substance abuse treatment has not taken into account trauma-related substance abuse. Current research is, however, beginning to focus on stress, trauma, and coping strategies as follows:

- Counsel alcoholics and addicts about healthier coping strategies.
  
- Counsel alcoholics and drug addicts about coping with cravings and triggers.
  
- Examine the impact of alcohol and other drug use upon coping.
  
- Examine the relationship between drug use and vulnerability to stress-induced relapse.
  
- Examine neurochemical links between stress, abuse and addiction.

## **Lessons from Recent Disasters and Life Crises**

Much is now being studied in terms of short term and long term outcomes and consequences of critical incidents and traumatic events. Information is continuing to be found which is instrumental to both treatment and prevention professionals, to assist with the development of effective interventions.

Research suggests that:

- All survivors should be given educational information to help normalize common reactions to trauma, improve coping, enhance self-care, facilitate recognition of significant problems, and increase knowledge of and access to services. This information can be delivered in many ways, including the media, community education activities, and written materials. More intensive follow-up services should be targeted at subgroups of survivors who are at heightened risk of chronic or severe post-trauma problems including substance use, abuse or dependence.

- ❑ Specialized outreach efforts need to be utilized to reach these individuals affected by trauma because experience dictates that relatively few trauma survivors make use of available mental health and substance abuse services, and support services,
- ❑ Prevention planners must consider how to reach survivors to educate them about alcohol and drug use, sources of help, and to market their services intentionally.
- ❑ A specialized plan of prevention action designed for the most specific population across domains, would yield the greatest effectiveness.
- ❑ Interorganizational networking and systems collaboration would yield the greatest opportunity for penetration into the post-trauma population.
- ❑ Joseph Califano, former secretary of Health, Education and Welfare and current President of the National Center of Addiction and Substance Abuse (CASA) at Columbia University, stated, “It is critical that we launch a public education campaign to spread the message that stress places individuals at higher risk for alcohol and drug abuse and relapse.”

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