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A Review of the Research on the Relationship Between Substance Abuse and a History of Exposure to Trauma

Debbie C. Sturm

Sturm, Debbie C., PhD, LPC, is an Assistant Professor of Graduate Psychology at James Madison University. She is a Licensed Professional Counselor in South Carolina. Her clinical experience has revolved primarily around working with individuals and families impacted by trauma and community violence. Her research interests include trauma response, mindfulness in counseling and supervision, social class and multicultural issues, and therapeutic experiences in nature.

Increasing awareness of the co-occurrence of substance use disorders, mental health diagnoses and the presence of a history of traumatic experiences has lead researchers to take a closer look at the interaction of these factors and to explore current treatment approaches in an attempt to develop more effective and coordinated services for patients tangled in this multi-layered web (Becker et al., 2005; Brady, Beck & Coffey, 2004; Newmann & Sallmann, 2004; Turner & Lloyd, 2003). An examination of the relationship between traumatic experiences and substance abuse as well as implications for counselors, counselors in training, supervisors, and counselor educators will be provided.

In 1998, the Substance Abuse and Mental Health Services Administration (SAMHSA) launched the first phase of a large-scale cooperative research effort to explore women with alcohol, drug abuse, and mental health issues who also have histories of violence or trauma. The results of this effort yielded important data on the interrelatedness of these issues as well as implications and recommendations for treatment alterations not previously documented on such a large scale for women. While SAMHSA initiatives have allowed for a strong focus on the relationship of trauma, mental health, and substance abuse issues for women, the turn of this century has also yielded research efforts pertaining to similar co-occurrences in other diverse populations such as adolescents and young adults (Ballon, Courbasson, & Smith, 2001; Jaycox, Ebener, Damesek & Becker, 2004; Rheingold et al., 2003; Turner & Lloyd, 2003), young inner city African American males (Rich & Grey, 2005), gender differences in homeless veterans (Benda, 2006), individuals treated in hospital settings (Guly, 2004), and older adults (Colleran, 2002; Shafer, 2003).
Background

Trauma is defined as an extreme stressor which presents itself in the form of experiences ranging from natural disasters, accidents, life threatening illness or painful medical procedures, physical or sexual abuse, domestic violence, or loss of a parent or significant person and can occur at home, in the community and in schools (Mulvihill, 2005). Trauma can be experienced directly or witnessed. Posttraumatic stress disorder (PTSD) involves a constellation of symptoms that persist for at least one month after exposure to a traumatic event (Brady, Beck & Coffey, 2004). Traumas associated with PTSD include interpersonal violence (physical and sexual abuse), natural disasters, and combat.

Brady et al. (2004) explored the relationship between PTSD and substance use disorders (SUDs) noting similarities and differences by gender among persons reported substance abuse issues. In this study, the data revealed men with PTSD were 5 times more likely and women with PTSD were 1.4 times as likely to abuse substances. Brady et al. (2004) stated the most common trauma reported among individuals with PTSD and SUD involved sexual and/or physical abuse, with emotional abuse and neglect being second. Most reported experiencing multiple traumas across the lifespan. In another study examining experiences of trauma by individuals presenting for substance abuse treatment, Ouimette, Read, and Brown (2005) studied 120 patients seeking in-patient SUD treatment upon admission and discharge from private university-affiliated hospital. Patients were measured for exposure to traumatic events in seven categories: family violence, serious disaster, sudden death of loved one, physical assault, sexual assault, accidents, and experience with being robbed/mugged. Their results revealed women reported more traumas than men (M=2.42, SD=1.38 compared to M=1.80, SD=1.68) with both groups reporting a higher incidence rate of trauma than the general population.

Most early PTSD studies involved male veterans, and while many focused on the relationship of war or combat related trauma and substance abuse, the notion of examining gender differences in veterans has only recently emerged as women have assumed combat roles. In one of the first studies of gender differences in veterans and the role of social support, trauma, and substance abuse, Benda (2006) discovered similarities and significant differences between genders. And while this study focused on homeless veterans exclusively, it expanded the view of trauma beyond combat experience to exploring trauma exposure across the lifespan. Outcomes revealed physical abuse was an impeding factor to substance abuse treatment success for both genders as were traumatic events, such as loss of a family member within the past 2 months. In addition, the researcher also concluded that sexual abuse, regardless of when it occurred, was a more significant predictor of women’s success in substance abuse treatment than for men. One question Benda (2006) raised stemming from this information was whether or not treatment programs should be gender specific in order to reduce the potential for female patients to be exposed to possible sexual advances or harassment reminiscent of their perpetrators.

As these gender difference studies show, both genders report a prevalence of trauma in both recent history and across the life span. The question raised is not whether trauma plays a role, but instead how should assessment and treatment be conducted in order to best address the subtle differences in the effects of different types of trauma. A
significant movement toward examining the role of trauma in substance abusing women has shed some light on that question.

Substance Abuse and Trauma in Women

The first studies of women and trauma did not occur until the 1970s (Salasin, 2005). Until that time, much work had been focused on male veterans of combat and war. Early studies on women compared to men revealed that women had higher rates of depression than men, most often stemming from loss, violence, and abuse. Additionally, women with depression were more likely than women without depression to be mothers of small children serving as single parents and living in poverty, thereby exacerbating the challenges they faced seeking treatment for their disorders.

Alexander (1996) described women with co-occurring substance abuse problems and mental disorders as an “emerging profile of vulnerability” (p.61) linked to poverty and victimization experiences across the lifespan. Just 2 years later, the Substance Abuse and Mental Health Services Administration (1998) began steps to take an intensive look at the needs of this population. Salasin (2005) described the movement by SAMHSA to explore the relationship between women, co-occurring substance abuse and mental health issues, and traumatic histories as not intended to minimize similar experiences by men, but to clearly identify the needs of women and identify ways to alter and better coordinate services. The initial SAMHSA report (1998) offered a key assumption: a woman’s history of interpersonal victimization, including physical and/or sexual abuse, is an important factor in the development of co-occurring substance abuse and mental health disorders, along with other related problems. The result of this report was an invitation to researchers to actively and thoroughly explore this issue.

Newmann and Sallmann (2004), in their effort to study the role of sexual or physical abuse histories in the development of co-occurring mental health and substance abuse issues, conducted interviews with women participating in 50 different programs and 20 different agencies addressing substance abuse and mental health issues. Of the more than 1,500 women interviewed, researchers discovered a history of abuse was the rule rather than the exception, with 95.7% of women who utilized both substance abuse treatment and mental health systems, 89.6% who used mental health only, and 82.5% who used substance abuse only, all reporting histories of abuse (Newmann & Sallmann, 2004). Researchers noted that while not all abuse stemmed from childhood, a substantially high percentage did.

In a study of women who abuse alcohol versus those who abuse cocaine, Back, Sonne, Killeen, Dansky, and Brady (2003) found that while women who abused both types of substances all experienced high levels of trauma, including early childhood physical and sexual abuse as well as multiple traumas over the course of their lifetimes, this did not effect their substance of choice. Women in both groups reported high affective disorders, yet significant differences between substances were only revealed between women who used cocaine versus alcohol when it came to a psychological diagnosis of depression, with alcohol use being higher. Cocaine addicted women, however, reported higher rates of criminal involvement, risky behavior, and greater disruption of social and occupational functioning, perhaps exposing them to a greater risk of multiple traumas in their addiction.
Becker et al. (2005) reported findings of 2,729 participants in the SAMHSA-spawned Women, Co-Occurring Disorders and Violence Study (WCDVS). Women in this study reported high incidences of recurring abuse beginning in early childhood. More than 91% of participants reported a history of physical abuse; 90% reported sexual abuse within their lifetime; 72.5% had been forced to have sex; and 52.5% had exchanged money, drugs, or material goods for sex. Additionally, 84% of women reported some history of emotional abuse or neglect. Much of this abuse began at a young age with the average age of first sexual or physical abuse being 13, and emotional abuse and neglect beginning even earlier, an average of age 9 (Becker et al., 2005).

Gatz et al. (2005), also explored results of the WCDVS in reference to the age of onset of abuse and its relation to age at onset of mental health issues and age of onset of drug or alcohol use. Researchers found that average age of sexual abuse, but not physical abuse, was recalled by participants as occurring prior to mental or emotional problems began. And drug and alcohol abuse were most often described as beginning at an age later than physical or sexual abuse. Simply put, Gatz et al. (2005) found that most women reported abuse to have occurred prior to substance abuse or mental health issues. In addition, most women reported multiple attempts at treatment for their substance abuse and mental health issues and multiple unsuccessful experiences. Researchers suggest that failure to address trauma, both recent and early childhood, in the context of substance abuse treatment may be a factor in difficulty attaining treatment success for those with co-occurring disorders.

Results of the WCDVS and the SAMHSA efforts yielded additional funding for key mental health organizations across the country to better educate staff and consumers about trauma and its relationship to co-occurring disorders (Salasin, 2005). SAMHSA also stressed that not enough efforts are in place to study and implement trauma-integrated services into its evidence-based practices and that stronger research initiatives should continue in that area (Salasin, 2005). Studies examining the integration of Seeking Safety (Ghee, Johnson, Burlew, & Bolling, 2009; Najavits, 2002), a flexible, present-focused therapeutic approach to working with individuals with substances abuse, trauma, and/or PTSD, and Women’s Integrated Treatment (Covington, 2008), a gender-responsive approach integrating relational-cultural theory, addiction theory, and trauma theory, are showing promising signs that trauma-integrated services may result in higher retention rates for women in treatment and better adherence to aftercare treatment services.

Substance Abuse and Trauma in Men

While the abundance of research studies in the past few years has focused on women’s issues, several studies have emerged pertaining to trauma and substance use in young African American males. Rich and Grey (2005) studied 49 young black males hospitalized for violence related injuries in an effort to explore the relationship between recurrent violent trauma, posttraumatic stress, and substance abuse. Of participants interviewed, 65% met full criteria for PTSD including nightmares, flashbacks, and emotional numbing. Participants also reported a sense of hyper vigilance. In addition, 67% reported they smoke marijuana on a regular basis; at least half of those reported increased use since the event to manage symptoms of trauma. Few PTSD studies explore victims of intentional violence in urban settings. The assumption has often been made
that this group abuses substances prior to trauma, but interviews revealed that while most used substances occasionally prior to trauma, an increased use, or dependence, evolved following the trauma in order to allay symptoms.

In another similar study, Turner and Lloyd (2003) collected data from more than 1,800 young adults and concluded that traumatic experiences rooted in violence were more prevalent among African American young adults than any other demographic group studied. Their research suggested that such events occurred at approximate onset of the substance dependence and were often preceded by earlier traumas that brought along an increased risk of substance dependence. In fact, their research showed that the typical young African American male interviewed had exposure to more than ten major and potentially traumatic experiences, while other groups had an average exposure of seven events.

While little research has focused on the experience of men, substance abuse, and trauma in the past few years, the impact early childhood and adolescent experiences with traumatic events and abuse have on adults can inform us of the factors men carry into adulthood. Being mindful of the long-term impact of earlier experiences can help clinicians frame the challenges faced by men with trauma histories who are also battling substance abuse. Until more research emerges, clinicians must work to combine a thorough historical assessment of childhood experiences in addition to the issues presented in the here and now.

**Substance Abuse and Trauma in Childhood, Adolescence and Young Adulthood**

In addition to their conclusions on young African American males, Turner and Lloyd (2003) looked at lifetime exposure to cumulative stressful events as a risk factor for drug dependence in young adults between age 19 and 21 of diverse backgrounds. They specifically examined exposure to stressful life events and found that six traumas considered “major events” were associated with significant increased risk of later drug dependence and 11 of the 13 “life traumas” predicted the onset of drug dependence. Five of these events presented significant differences among prevalence in diversity with events such as sexual molestation and physical abuse highest among whites and having been shot or having been shot at highest among African Americans. Other differences highlighted included exposure to violence being higher among young men in general and molestation, rape, or physical abuse being highest among young women.

Turner and Lloyd (2003) also found that current drug dependence among this population was consisted with other typically childhood-associated psychiatric disorders such as attention deficit and hyperactivity disorder (ADHD) and childhood conduct disorder, both of which have links to childhood trauma and to latter development of drug use. Additionally, Min, Farkas, Minnes, and Singer (2007) found significant relationships between childhood abuse and neglect on later substance abuse and psychological distress, particularly coping styles, in adulthood. Factors such as avoidant coping, shame, self-blame, interpersonal difficulties, or attachment insecurity were all offered as important to consider when working with substance abusing adults who experienced childhood trauma (Min et al., 2007; Whiffen & MacIntosh, 2005).

In studies of adults and young adults, results continue to underline the presence of past traumatic experiences, particularly childhood traumas, among a high percentage of those individuals struggling with substance use disorders. And while researchers such as
Turner and Lloyd (2003) studied young adults, many others looked at adolescents with substance abuse issues and uncovered similar findings. Previous studies explored the increased risk of trauma exposure by substance abusing adolescents, but few have looked at the inverse scenario: exposure to traumatic events and its relationship to substance abuse.

According to Mulvihill (2005), children exposed to conditions of chronic trauma or raised in environments that present a persistent threat may develop an altered sense of fear and a changed physiological state in the sense that an internal sense of calmness is rarely experienced. As they grow into adolescents, these children find ways to artificially induce a sense of calm, often through the use of substances such as alcohol and drugs. Jaycox et al. (2004) examined trauma exposure, posttraumatic stress disorder, and psychosocial functioning among adolescents entering a substance abuse treatment facility. Using an inventory of past year stressors and trauma exposure, as well as an assessment of post traumatic stress disorder, the researchers discovered nearly three-quarters (73%) of respondents had experienced at least one of the traumatic events in the survey prior to admission. They added that most of the traumas reported were severe with most respondents having been exposed to more than one event during that time period, and 29% of the adolescents met criteria for a current PTSD diagnosis.

Ballon et al. (2001) assessed 287 male and female youth aged 14 to 24 in substance abuse treatment and found that 50% of females and 10% of males had a history of sexual abuse. In addition, 50% of females and 26% of males had a history of physical abuse. The percentages present in this population for occurrence of physical and sexual abuse are more than double the rate of occurrence for the general population. Similar gender differences were found in adults studied by Ouimette et al. (2005) and Benda (2006) noted earlier. Ballon et al. (2001) also discovered that more females than males reported beginning to use substances after the trauma and more females reported using substances for coping than did males. Among the youths who reported using substances for coping, there was a higher prevalence of past suicide attempts and reports of anger-management problems.

Rheingold et al. (2003) interpreted data from the National Survey of Adolescents (NSA) in order to determine prevalence of loss or trauma among adolescents and the relationship with mental health and substance abuse disorders. Their results indicated that while adolescents’ experience of the loss of a close friend or family member is high, only the loss of a close friend within the previous year brought associated risk for PTSD, mental health disorders, and substance abuse. The implication for identifying and treating substance abuse and mental health issues is that adolescents are at a high risk of experiencing loss of a friend or family member, that such losses, particularly that of a close friend, can increase risk factors, and that attention should be paid to an adolescents’ loss history, not just abuse history, as part of exploring trauma presence as a factor in treatment.

**Substance Abuse and Trauma in Older Adults**

The majority of substance abuse related research focuses on adolescence and early or middle adulthood, with virtually no mention of older adults. Shafer (2003) stated alcohol abuse is one of the most common psychiatric disorders among the elderly, third behind anxiety disorders and forms of dementia. Unlike younger populations who often
use substances recreationally, the elderly are believed to seek the use of drugs and alcohol as a therapeutic relief from pain and grief (Colleran, 2002).

Shafer (2003) discussed the role of trauma and loss on substance abuse use in the elderly and states that while older people become more vulnerable to loss as they age, it is not necessarily the loss itself but the magnitude and accumulation of losses over a shorter period of time that takes a heavier toll. Increased losses such as multiple deaths of family and friends, loss of health or independence and mobility combine to form particularly high stressors. Shafer (2003) cited estimates that 25-50% of elderly suicide victims used alcohol prior to their deaths. Older adults are not the traditional population expected to have substance use disorders and signs and symptoms are often overlooked or attributed to old age, failing health, or personality. And yet, given the abundance of research that supports the notion that a lifespan accumulation of trauma as well as the presence of multiple recent traumas or losses increases the risk of substance abuse, older adults are certainly a group to be considered at significant risk.

**Implications for Substance Abuse Assessment and Treatment**

Brady et al. (2004) stated that in light of accumulating evidence supporting the link between traumatic experiences and substance abuse, systematic changes in treatment for individuals with co-occurring PTSD and SUDs is slow but emerging. Most successful interventions are combining treatment for trauma and substance abuse within one system. One emerging aspect is the role of pharmacotherapy as a way to temporarily reduce PTSD symptoms so patients do not feel as much as need to use substances to quiet their symptoms, thus opening the door for more effective treatment of SUDs.

Ouimette et al. (2005) echoed the need for appropriate assessment tools for those with trauma histories and substance abuse and caution that little is known about the extent to which current measures for PTSD and SUD can be used separately to assess active substance abusing individuals for PTSD symptomology. Their research on recall of past traumas suggests that active using could confound accuracy of PTSD assessment. In intake reports with individuals actively using, self-reports of trauma histories revealed higher incidences of exposure to traumatic events than SUD post-treatment self-reports. Implications are that individuals who are actively using may additionally be experiencing altered perceptions of their experiences. Lloyd and Turner (2003) in their work with a large young adult population also suggested the concept of ‘state-dependence’ bias, meaning that individuals with an active substance abuse disorder may be more likely to remember or report having stressful life events than those same individuals would once they are free of the substance.

Newmann and Sallmann (2004) stressed that service providers need to be trained to explore women’s abuse histories along with co-occurring substance abuse and mental health issues. And Gatz et al. (2005) suggested the need for programs to address both recent and past abuse histories. Such treatment should include accurate assessment of abuse over the life span, recognizing symptoms of PTSD, and implementing treatment designed for traumatized women. Also addressing the specific needs of women, Back et al. (2003) emphasized that both alcohol and cocaine treatment providers for women look at trauma histories, since trauma has not been proven to be substance-specific. And given that women who are abusing cocaine (often young and African American) have a higher
sexual risk, including prostitution and additional traumas, the researchers suggested the inclusion of sexual education and safety planning in treatment.

Newmann and Sallmann (2004), like many others, underlined the need for more integrated services at the individual level so that people with cluster of issues can address them in one setting under one type of care rather than in multiple uncoordinated settings. Becker et al. (2005) echoed those remarks and highlighted the need for more accessible and better integrated services to address both trauma and substance abuse. They described the need to create well-rounded services, particularly for women who are often also single parents, to involve children, family reunification, and parenting skills. This continues to underline the notion that trauma-informed practices, integrated with substance abuse treatment, should become part of training and educational experiences for any counselors or supervisors who encounter clients with either of these experiences.

Given the prevalence of early childhood trauma in those individuals with substances abuse issues, Mulvihill (2005) recommended additional education and resources be directed toward the prevention, detection, and early intervention of childhood physical and sexual abuse. Understanding the association with later mental health and substance related problems, every effort should be made to reduce the number of children exposed to violence and trauma and to intervening early with those children who have been exposed in order to reduce their risk of later associated problems. Ballon et al. (2001) echoed that sentiment and stressed that screening for past trauma should become routine when treating adolescent and young adult substance abusers. Often, the substance abuse is a coping mechanism for the trauma and additional coping mechanisms for trauma will need to be developed in order for substance use to have a chance at being alleviated.

Given consideration to often overlooked population, Shafer (2003) recommended creation of better assessment tools for recognizing stressful life events and accumulating losses and depression in the elderly in order to better screen for substance use, self-medicating, and increased suicide risk. Given the unique needs and developmental issues of this particular population, specifically designed substance abuse programs are recommended. Specific needs for older populations include programs that are affordable to those on limited incomes, accessible by public transportation or located within hospitals or assisted living communities, and can also provide valuable social links for isolated seniors. And finally, Coyhis and Simonelli (2008) remind us of the need to consider cultural traumas, such as those experienced by Native Americans, a population historically plagued with substance abuse issues, when we define trauma and incorporate trauma-integrated services.

**Discussion**

This review represents a sampling of the research conducted just since the beginning of the 21st century and reveals not only compelling support for the notion that a high percentage of those individuals with substance abuse issues also have recent and/or life-long histories of traumatic experiences. Implications for prevention, improved screening, and trauma-inclusive substance abuse treatment options are pushing the counseling profession in a direction that it has only begun to embrace. Changing long-embedded systems takes time and requires a shift in thinking about the nature of
substance abuse. The current growing pool of research should serve as a call to counselor educators introducing students to substance abuse and trauma issues, to supervisors in the field, and to new counselors seeking greater competency to be mindful is reaching beyond traditional approaches and intentionally seek trauma informed practices and trauma informed referral sources for our clients.

One of the by-products of understanding the complex and painful life experiences of those struggling with substance use disorders is hopefully a compassionate, rather than blaming or judgmental, approach to the individual and a realization that often what lies behind the substance use is a coping mechanism for trauma that is not doing a great job at healing the individual. Hopefully, with the substantial research developing in this field, the shift toward trauma-inclusive treatment for substance abuse and combined treatment programs for co-occurring disorders, along with education and tools for professionals in the field, will become the accepted standard of care.

References


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