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Theoretical perspective on posttraumatic stress disorder and substance use disorder

L. M. NAJAVITS

Harvard Medical School and McLean Hospital, Boston, MA, USA

Abstract

This paper reviews theoretical considerations in the treatment of patients with the dual diagnosis of posttraumatic stress disorder (PTSD) and substance use disorder (SUD). This dual diagnosis is shown to have features that are similar to other dual diagnoses, but also differences in some important areas. For example, in contrast to some other mental health diagnoses, PTSD may worsen with abstinence from substances; it is unique in potentially evoking symptoms of the disorder in the clinician; it may be easier to diagnose in the context of SUD; it may be more disavowed and underdiagnosed; it may require stage-based treatment; it may have more likelihood of recovery; and legal issues may be more prominent. Key themes of therapy for the dual diagnosis are described, as well as specific psychotherapies that have published empirical results. The need for more empirical research on the dual diagnosis is emphasised.

The dual diagnosis of posttraumatic stress disorder (PTSD) and substance use disorder (SUD) is widespread. In community samples, men with PTSD have a 52% rate of alcohol use disorder and a 35% rate of drug use disorder (lifetime); among women the rates are 28% and 27% respectively (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). In substance abuse samples, the rate of PTSD ranges from 30% to 75% lifetime and 11% to 60% current, with female subjects showing particularly high rates (Brady, 2001; Jacobsen, Southwick, & Kosten, 2001; Najavits et al., 2003; Najavits, Weiss, & Shaw, 1997). The dual diagnosis, compared to the single diagnoses of SUD and/or PTSD, is associated with greater clinical severity, including worse treatment outcome, lower work functioning, more additional Axis I and II disorders (such as major depression and obsessive–compulsive personality disorder), increased HIV risk, and more medical and legal problems (Brady, Killeen, Saladin, Dansky, & Becker, 1994; Hien, Nunes, Levin, & Fraser, 2000; Najavits, Gastfriend et al., 1998; Ouimette, Finney, & Moos, 1999).

The relation between particular substances and PTSD symptoms is complex. For example, studies that have evaluated SUD in relation to the three *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) *DSM-IV* PTSD symptom clusters (intrusion, avoidance, and arousal) have shown a variety of findings. Saladin, Brady, Dansky, and Kilpatrick (1995) found more avoidance and arousal among those with the dual diagnosis than among those with PTSD alone. Stewart, Conrod, Pihl, and Dongier (1999), in a study of women, found that alcohol dependence was associated with arousal, anxiolytic dependence with arousal and numbing (the latter evaluated separately from avoidance in that study), and analgesic dependence with arousal, intrusion, and numbing. McFall, Mackay, and Donovan (1992), in a study of Vietnam veterans, found alcohol problems associated with intrusion and arousal, but drug problems associated with intrusion and avoidance. Najavits et al. (2003) found arousal to be the most prominent PTSD symptom cluster in a cocaine-dependent sample.

The present paper will address several broad themes relevant to the dual diagnosis. First, how is PTSD/SUD the same and different from other dual diagnoses? Second, what are key principles of treatment for it?

Relation to other dual diagnoses

In early work on dual diagnosis, the concept was used to encompass all mental health diagnoses that

Correspondence: L. M. Najavits, Proctor III, McLean Hospital, 115 Mill Street, Belmont, MA 02478, USA. E-mail: lisa_najavits@hms.harvard.edu

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co-occurred with SUD. An important development in the past decade has been an increasing focus on specific dual diagnoses. Treatments have been developed or adapted, for example, for borderline personality disordered patients with SUD (Linehan et al., 1999), schizophrenia and SUD (Ziedonis & Fisher, 1996), and bipolar disorder and SUD (Weiss et al., 2000). PTSD and SUD appears to have some similarities to other dual diagnoses, but also some important differences.

Similarities

Multiple causal relationships are possible between the two diagnoses. These include: the mental illness as a risk factor for SUD; SUD as a risk factor for mental illness; psychiatric symptoms that are exacerbated by substance use; both types of disorders as related to some other cause; mental illness that impairs judgment around substance use; each disorder modifying the course of the other; and, no relationship (Meyer, 1986; Weiss, Najavits, & Mirin, 1998).

Both disorders need treatment. Regardless of which disorder came first, once two disorders exist, both need treatment. It is widely agreed that this is true for PTSD/SUD, as with other dual diagnoses (Ouimette & Brown, 2002; Weiss et al., 1998).

Worse outcomes are found for dual diagnosis than single diagnosis. In general, patients with dual diagnoses have worse outcomes than those with just one disorder (mental health or SUD). This has been found for PTSD/SUD, as well as other dual diagnoses (Ouimette & Brown, 2002; Ries, Sloan, & Miller, 1997; Weiss et al., 1998).

Each disorder impacts on the other. Part of the treatment challenge is that each disorder can influence the other. An increase in symptoms of one can either increase or decrease symptoms of the other (Brown, Stout, & Gannon-Rowley, 1998). Moreover, a particular substance may impact on PTSD symptoms differentially; alcohol, for example, can help the patient sleep, but may increase depressed mood.

Differences

PTSD may worsen with abstinence from substances. This is an often-observed clinical phenomenon (although there is little empirical study of the topic) (Kovach, 1986; Stewart, 1996). Many patients report that as they remain abstinent, there is an increase in overwhelming emotion and trauma memories that had been kept at bay through substance use. PTSD is thus different from other mental illnesses that co-occur with SUD. For example, depressive symptoms and generalised anxiety often improve as abstinence is attained (although in substance withdrawal, these too may increase briefly).

PTSD recovery is possible. PTSD is the only disorder in psychiatry where the direct cause is known and external to the patient: that is, a traumatic event that was unwanted and uncontrollable (e.g., natural disaster, accident, assault). Even though there appear to be other pre-existing factors that influence who develops PTSD (e.g., biological vulnerability, lower socioeconomic status, more mental illness in the family history) (Breslau, Davis, & Andreski, 1995; Breslau, Davis, Andreski, & Peterson, 1991), nonetheless the PTSD diagnosis is predicated on direct exposure to a traumatic event. As such, it may perhaps be easier to treat PTSD, or at least to engage the patient in working on it, by focusing on that specific event and its ramifications. For severe cases of PTSD, there is no question that symptoms may endure for a long time (Kessler et al., 1995), and may worsen later in life (Port, Engdahl, & Frazier, 2001). However, it is also known that full recovery from PTSD is possible in many cases (Foa & Rothbaum, 1998), particularly if the patient experienced what is informally known as simple PTSD (a single trauma, usually in adulthood). For complex PTSD (multiple traumas, often in childhood), full recovery may not be possible but the patient may attain sufficient progress to lose the PTSD diagnosis, even in a short treatment episode (e.g., Zlotnick, Najavits, & Rohsenow, 2003), and may attain a higher quality of life in terms of ability to function. In contrast, treatment for other mental illnesses, particularly severe and persistent mental illnesses such as bipolar disorder and schizophrenia, may be largely focused on management rather than recovery. It has also been observed clinically that the PTSD diagnosis too may be easier to accept than some other diagnoses, due to the same issues (Najavits, 2002).

PTSD may be easier to diagnose in the context of SUD. This remains an empirical question requiring further research (Read, Bollinger, & Sharansky, 2002). However, some experts believe that the PTSD diagnosis is robust even in the context of substance use or withdrawal (although some symptoms may be dampened or increased) (Najavits, 2004b). Also, the diagnostic criteria for PTSD and SUD have little or no overlap (American Psychiatric Association, 1994). In contrast, some other psychiatric disorders, such as depression, may be more confusing to assess clearly in the context of substance use or withdrawal (Weiss et al., 1998).

PTSD has some unique clinical features. By definition, all disorders have unique features. However, it is worth considering several particular characteristics of the PTSD experience. For example, in severe cases (which are most likely to co-occur with SUD) (Najavits et al., 1997), there are various features that go beyond the *DSM-IV* definition and that in some sense relate to broader issues of identity. Existential questions are common, such as "Why did the trauma happen to me?", and "Is life worth living when such events occur?" Significant features also include physical self-harm, dissociation, memory problems, attribution of self-blame for the trauma, sexual problems (if the trauma was sexual in nature) and interpersonal problems (e.g., boundary issues, distrust, and isolation). Often referred to as trauma-related problems (Briere, 1996), they are part of the clinical challenge. Other disorders may be more narrow in their impact (e.g., phobias, panic disorder).

PTSD may be more disavowed and underdiagnosed than other disorders. Herman (1992) has written eloquently about this issue, highlighting the fact that at certain times in history or in certain cultures, trauma and PTSD may be disavowed. For example, in the 20th century, sexual abuse of children was largely ignored until the 1970s. There are complex reasons for the disavowal of trauma, including fear of vulnerability, blaming the victim, and excessive support of those in positions of power. PTSD and trauma appear unique in psychiatry in that they are commonly subject to denial and minimisation by people other than patients themselves, including family members, community, and even among those in the mental health field. Denial in substance use, in contrast, is typically denial by patients themselves about their illness, with the SUD itself widely acknowledged by others as a real disorder. Denial or minimisation of trauma and PTSD are believed to contribute to the underdiagnosis and misdiagnosis of PTSD in SUD, mental health, and primary care settings, in contrast to other disorders that are more likely to be diagnosed (e.g., major depression) (Dansky, Roitzsch, Brady, & Saladin, 1997; Davidson, 2001; Najavits, 2004b).

PTSD is unique in potentially evoking symptoms of the disorder in the clinician. Known as secondary traumatisation or vicarious traumatisation, clinicians sometimes experience PTSD-type symptoms themselves if exposed to too many trauma patients (Pearlman & Saakvitne, 1995). Hearing horrific trauma histories and seeing the injuries caused by trauma can leave the clinician with a mirror image of PTSD symptoms (e.g., nightmares, anxiety, intrusive thoughts). Other Axis I disorders are not known for this phenomenon. For example, treatment of phobias, depression, or schizophrenia is not described as an occupational hazard that could evoke secondary symptoms in the clinician.

PTSD may require stage-based treatment. It has repeatedly been observed that PTSD patients may benefit from a phase-based approach, in contrast to many other disorders. Herman (1992), Chu (1988) and others have commented on the need for a first stage of safety in the treatment of PTSD, particularly for severe versions of the disorder. A second phase is described as mourning, also widely known as trauma processing or exposure therapy, in which the patient tells the trauma story. A third phase is described as reconnection, in which the patient focuses on achieving a functional life in work and relationships. For less severe PTSD, based on a single trauma or without the complication of other co-occurring disorders, the first phase may not be needed and the patient may be able to benefit immediately from trauma processing (Coffey, Dansky, & Brady, 2002; Foa & Rothbaum, 1998; Resick & Schnicke, 1993). However, there remains a high need for empirical study of which patients require particular phases of treatment. For example, it is not yet clear that all patients necessarily need to do phase 2 work; a focus solely on coping skills and stabilisation may be sufficient and preferred for some.

Legal issues may be more prominent in PTSD. This can include mandatory reporting of perpetrators of trauma (e.g., child abusers), which in some States may be required even for adult PTSD patients many years after the trauma occurred. It can include current legal involvement, such as suing a company for a defective product that caused an accident. Thus too, secondary gain may also be more prominent than for other psychiatric diagnoses. Although likely to affect a relatively small number of patients, the lure of monetary compensation for mental and physical injuries associated with PTSD may involve legal as well as clinical challenges. For example, in Veterans Affairs settings, it is widely known that compensation for PTSD will be withdrawn if the patient recovers sufficiently to lose the PTSD diagnosis. Determining whether a patient truly has PTSD, and thus deserves compensation in the first place, may also be an issue.

Key treatment themes

Based in part on some of the unique features of PTSD, several themes can be identified when treating it in the context of SUD. In this section, such themes will be described, reprinted from Najavits (2004c). A description of assessment

themes for this dual diagnosis are described elsewhere (Najavits, 2004b).

Integrated treatment

It is widely recommended that clients be treated for PTSD and SUD at the same time and, if possible, by the same program or therapist. It used to be said that clients needed to attain a period of sustained abstinence from substances before they could embark on PTSD treatment (called "sequential treatment", i.e., treating one disorder first, then the other). However, all of the specialised treatments designed for the dual diagnosis, as described in the following section, attempt to address both disorders at once in an effort to maximise the likelihood that clients will succeed in recovery from both. Clients too repeatedly express a preference to work on their PTSD at the same time (Brown et al., 1998; Najavits, Sullivan, Schmitz, Weiss, & Lee, 2004). No studies as yet have directly compared integrated versus sequential treatment, likely because the field is in an early stage. However, existing studies have found that integrated models for this dual diagnosis outperform treatment-as-usual in the community (Hien, Cohen, Litt, Miele, & Capstick, in press; Najavits, Gallop, & Weiss, under review). Integrated treatment is believed to be more helpful for a variety of reasons. For example, adding a PTSD focus can help clients attain greater motivation to decrease substance abuse (e.g., "Now I understand better why I was using"). Treating both disorders at the same time may be more cost-effective, and may capitalise on improvements in one domain to spur improvements in the other. The shame, guilt, and self-blame associated with trauma, particularly severe or early trauma, may stand in the way of treatment engagement unless they are addressed directly. Similarly, attempting to treat PTSD without addressing active substance abuse is now considered poor quality care. Substance use may dampen or heighten existing PTSD symptoms, and may prevent the client from learning to cope. Even if substances work in the short run to escape from or manage the sequelae of PTSD, in the long run they impede genuine progress.

Psychoeducation

Clients often have little or no knowledge of PTSD and its relation to substance abuse, despite having lived with these illnesses for many years. It is often highly therapeutic to learn about the diagnoses, including how commonly they co-occur, gender differences, and trauma-related symptoms (such as dissociation, self-harm, distrust, boundary problems, sexual problems). Such psychoeducation can help clients move toward a respectful awareness of their symptoms, rather than perceiving themselves as "crazy, lazy or bad" (Najavits, 2002). It can help them to see how their behaviour, including substance abuse, makes sense in light of their trauma history.

Coping skills

Clients with this dual diagnosis often have poor coping skills. They may never have learned positive coping in their family of origin, and may have diminished ability to cope due to the impact of PTSD and SUD. Substance abuse per se is widely understood, at least in part, as a misguided attempt to manage events, feelings, and relationships (Marlatt & Gordon, 1985). Other poor coping includes self-harm (such as mutilating the body), passivity (letting life just happen), lack of goals, and relational disturbance (such as power struggles). Thus, most treatments designed for this dual diagnosis place a strong emphasis on educating the client in a variety of new coping skills (see specific skills in the following section). One skill, for example, in the Seeking Safety model is Detaching from emotional pain (grounding) (Najavits, 2002).

Trauma-informed treatment

In addition to particular psychotherapy models, there is increasing focus on the need for treatment systems to be "trauma-informed" (Fallot & Harris, 2001). Even staff who do not conduct psychotherapy, such as administrators, support staff, and paraprofessionals, can help improve the treatment atmosphere by learning about PTSD and its link to SUD. Typical themes of trauma-informed treatment include adapting policies to be sensitive to trauma (e.g., letting a client keep the lights on at night in a residential program), creating advanced directives (collaborating with clients to develop a plan for how to calm down if they become agitated), seclusion and restraint policies that do not reenact trauma (e.g., avoiding four-point restraints), and the use of a therapeutic style that takes trauma into account (emphasis on support, empathy, and empowerment).

Multiple modalities

Due to the complexity of this dual diagnosis and the many life problems associated with it (including homelessness, poverty, medical problems, HIV risk, parenting issues, and legal problems), the more modalities of treatment, the better. This may include referrals to 12-step self-help groups such as Alcoholics Anonymous, parenting skills training, psychopharmacology, group therapy, day treatment, domestic violence counselling, and others. For an example of how to refer clients to multiple mod-

alities, see the topic "Case management" (Najavits, 2002).

Countertransference

Both PTSD and SUD tend to evoke strong countertransference responses by clinicians (Imhof, 1991; Pearlman & Saakvitne, 1995). These run the gamut from overidentification with clients' suffering; frustration and anger when clients repeatedly relapse; reenacting the trauma roles of victim, perpetrator, or bystander (Herman, 1992), and boundary lapses such as excessive self-disclosure. Thus, helping clinicians to own and manage their emotional responses to these clients is a key aspect of successful treatment.

Specific psychotherapies

A major development in the past decade has been the development of specific therapies for the dual diagnosis of PTSD and SUD. Those with published empirical results are described briefly here, although other models also exist that do not yet have published results (Abueg & Fairbank, 1991; Bollerud, 1990; Covington, 2000; Evans & Sullivan, 1995; Ford, Kasimer, MacDonald, & Savill, 2000; Meisler, 1999; Miller & Guidry, 2001; Trotter, 1992). It can be noted that each of the models presented here, combines methods from different theoretical orientations, highlighting the idea that for complex patients with multiple disorders, no single theoretical orientation is likely to be sufficient (although this remains, to some degree, an empirical question requiring further research). The following section is drawn, with permission, from the Center for Substance Abuse Treatment (in press).

Seeking Safety

Description. Seeking Safety is a present-focused therapy to help clients attain safety from both PTSD and substance abuse. The treatment is available as a book (Najavits, 2002), providing clinician guidelines and client handouts. Seeking Safety was designed for group or individual format, female and male subjects, a variety of settings (e.g., outpatient, inpatient, residential), and for both substance abuse and dependence. Seeking Safety has also been used with clients who have a trauma history, but who do not meet criteria for PTSD. It has been studied with both adults and adolescents. Seeking Safety consists of 25 topics that address cognitive, behavioural, interpersonal, and case management domains. The treatment was designed for a high level of flexibility in clinical settings: topics can be conducted in any order, using as few or as many as are possible within the clients' length of stay, and by a wide variety of counsellors (e.g., paraprofessionals and professionals). The topics are: Introduction/case management, Safety, PTSD: Taking back your power, When substances control you, Honesty, Asking for help, Setting boundaries in relationships, Getting others to support your recovery, Healthy relationships, Community resources, Compassion, Creating meaning, Discovery, Integrating the split self, Recovery thinking, Taking good care of yourself, Commitment, Respecting your time, Coping with triggers, Self-nurturing, Red and green flags, Detaching from emotional pain (grounding), Life choices, and Termination. See also related articles (Najavits, 2000; Najavits, 2004a), and the website www.seekingsafety.org.

Empirical research. Seeking Safety, at this point, is the most studied therapy for trauma/PTSD and substance abuse, with seven completed outcome studies (including two randomised trials), all evidencing positive results. The studies were: outpatient women using group modality (Najavits, Weiss, Shaw, & Muenz, 1998); women in prison, in group modality (Zlotnick et al., 2003); low-income mostly minority women, in individual format (Hien et al., in press); adolescent girls, in individual format (Najavits et al., under review); outpatient men traumatised as children, in individual format (Najavits, Schmitz, Gotthardt, & Weiss, in press); women in a community mental health setting, in group format, in which Seeking Safety was combined with a variety of other manual-based therapies (Holdcraft & Comtois, 2002); and finally, men and women veterans, in group format (Cook, Walser, Kane, Ruzek, & Woody, in press). In all six studies that reported on substance abuse, improvements were found in that domain. Similarly, all six studies that included assessment of PTSD and/or trauma-related symptoms found improvements in those areas. Improvements were also found in a variety of other areas, such as general psychiatric symptoms, social adjustment, suicidal thoughts and plans, problem-solving, sense of meaning, quality of life, and depression. Treatment attendance and satisfaction were high. Four of the studies had follow-up periods after treatment ended and showed maintenance of some key gains (Hien et al., in press; Najavits et al., 1998; Najavits et al., under review; Zlotnick et al., 2003). Five of the studies were pilots, while two were randomised controlled trials (Hien et al., in press; Najavits, Weiss, et al., 1998). In the trial by Hien et al. (in press), Seeking Safety performed as well as Relapse Prevention treatment, and both significantly outperformed a non-randomised treatment-as-usual control condition (standard substance abuse and mental health treatment). In the Najavits, Gallop et al. study (under review), Seeking Safety outper-

formed treatment-as-usual in the community for outpatient adolescent girls. Finally, it can be noted that two of the studies combined Seeking Safety with other manual-based approaches. The study of men combined Seeking Safety with Exposure-Therapy-Revised, an adaptation of Exposure Therapy for PTSD specifically for substance abuse clients (Najavits, Schmitz et al., in press). The study of women in a community mental health center (Holdcraft & Comtois) combined Seeking Safety with Linehan's Dialectical Behaviour Therapy (Linehan, 1993).

Concurrent Treatment of PTSD and Cocaine Dependence

Description. Concurrent Treatment of PTSD and Cocaine Dependence (CTPCD) is a 16-session, twice-weekly individual outpatient psychotherapy designed to treat women and men with comorbid PTSD and cocaine dependence (Back, Dansky, Carroll, Foa, & Brady, 2001). CTPCD combines both imaginal and in vivo exposure therapy for the treatment of PTSD plus elements of cognitive behaviour therapy (CBT) for substance dependence (Carroll, 1998; Kadden et al., 1995; Monti, Kadden, Rohsenow, Cooney, & Abrams, 2002). To balance the dual needs of sobriety skill-building and trauma treatment, the first five sessions focus on coping skills for cocaine dependence. Session 6 makes the transition to use of exposure therapy, which begins in session 7, and is combined with a CBT topic for the treatment of substance abuse.

Empirical research. One uncontrolled pilot study on CTPCD has been completed (Brady, Dansky, Back, Foa, & Caroll, 2001). Treatment completers (defined as attendance at ten or more sessions; 38.5% of the 39 clients enrolled) evidenced reductions by the end of treatment in all three PTSD symptom clusters, cocaine use, depression, and psychiatric and cocaine use severity. Improvements in PTSD symptoms and cocaine use were maintained over a 6-month follow up. Those who dropped out (61.5%) had significantly lower education and higher PTSD avoidance symptoms. With some modifications, CTPCD has been used in a variety of settings including inner-city community mental health centers (Coffey, Schumacher, Brimo, & Brady, in press).

Substance Dependence PTSD Therapy

Description. Substance Dependence PTSD Therapy (SDPT; Triffleman, Carroll, & Kellogg, 1999), later retitled ARTS, is an integration of empirically validated treatment approaches for substance dependence (Carroll, 1998; Carroll, Rounsaville, & Keller, 1991) and trauma (stress innoculation therapy and in vivo exposure). SDPT was designed for both genders and for patients with diverse trauma histories. SDPT is a structured 5-month, twice-weekly individual treatment with two phases. Phase 1 is "trauma-informed, addiction-focused treatment" and consists of five treatment modules taken largely from CBT for substance use (Carroll, 1998; Carroll et al., 1991; Kadden et al., 1995; Monti et al., 2002). Modules are: Introduction to SDPT, Coping with craving and drug use triggers, Relaxation training, HIV risk behaviours, and Anger awareness and management. Modules in phase 1 emphasise the application of these topics for both the PTSD and addiction. Phase 2 is a "trauma-focused, addictions-informed phase", which aims to reduce PTSD symptoms while continuing active attention to the addiction. The first portion of phase 2 consists of a modified version of stress innoculation therapy (SIT). SIT teaches coping skills and cognitive restructuring strategies to reinterpret cognitive distortions about trauma-related and other stressful stimuli, including trauma-related therapy sessions. In preparation for the in vivo exposure, clients are taught strategies to address avoided situations, including how to approach an avoided situation, how to confront the situation, skills to employ if overwhelmed by an avoided situation, and finally, how to deal with the aftermath that may follow. During the "anti-avoidance" phase of treatment, SIT is combined with in vivo exposure, as aforementioned, to reduce cognitive, emotional, and physiological reactivity to trauma-related stimuli. In vivo exposure is administered in the form of a desensitisation hierarchy. Throughout treatment, urinalysis for continuing substance use is undertaken on a weekly to twice-weekly basis. Throughout phase 2, therapists actively monitor continued substance use and substance craving, both in relation to the patient's usual triggers as well as in relation to therapy sessions and therapy homework.

Empirical research. A pilot study found reduction in PTSD severity by the end of treatment. Although substance abuse symptoms did not decline significantly by the end of treatment, they did decline at a 3-month follow up (Triffleman, 2000).

Transcend

Description. Transcend is a 12-week partial hospitalisation treatment program for Vietnam veterans with PTSD and substance abuse disorder (Donovan, Padin-Rivera, & Kowaliw, 2001). It consists of 10 hr per week of group treatment, mandatory attendance in a substance abuse rehabilitation program, and supplementary activities (e.g., volunteer community service). Six weeks focus on skills development, and 6 weeks on trauma processing,

based on a combination of concepts derived from constructivist, existential, dynamic, cognitive behavioural, and 12-step theories.

Empirical research. A pilot study analysed data on 46 male veterans who completed the Transcend program. All were required to have 30 days of substance abstinence before beginning the project, verified by urinalysis. Results showed less intense and less frequently occurring PTSD symptoms and fewer days of substance use by the end of treatment, and sustained at 6- and 12-month follow up (Donovan et al., 2001).

Conclusion

A theoretical overview of the dual diagnosis of PTSD and SUD suggests that it has a variety of features that make its treatment both unique (different from other dual diagnoses), but also similar. Key treatment themes and specific treatments for the dual diagnosis arise from these theoretical considerations. Yet much work remains to be done on both the research and clinical fronts. For example, existing treatment outcome studies have not as yet compared differential efficacy for simple versus complex PTSD, for various additional co-occurring disorders (e.g., how might borderline personality disorder in addition to PTSD and substance abuse impact on results?), nor for integrated versus sequential treatment models. These and many other questions remain prominent for future research.

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References

Abueg, F. R., & Fairbank, J. A. (1991). Behavioral treatment of the PTSD-substance abuser: A multidimensional stage model. In P. Saigh (Ed.), *Posttraumatic stress disorder: A behavioral approach to assessment and treatment* (pp. 111–146). New York: Pergamon Press.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders IV*. Washington, DC: The Author.

Back, S., Dansky, B., Carroll, K., Foa, E., & Brady, K. (2001). Exposure therapy in the treatment of PTSD among cocaine-dependent individuals: Description of procedures. *Journal of Substance Abuse Treatment, 21*, 35–45.

Bollerud, K. (1990). A model for the treatment of trauma-related syndromes among chemically dependent inpatient women. *Journal of Substance Abuse Treatment, 7*, 83–87.

Brady, K., Dansky, B., Back, S., Foa, E., & Caroll, K. (2001). Exposure therapy in the treatment of PTSD among cocaine-dependent individuals: Preliminary findings. *Journal of Substance Abuse Treatment, 21*, 47–54.

Brady, K. T. (2001). Comorbid posttraumatic stress disorder and substance use disorders. *Psychiatric Annals, 31*, 313–319.

Brady, K. T., Killeen, T., Saladin, M. E., Dansky, B. S., & Becker, S. (1994). Comorbid substance abuse and posttraumatic stress disorder: Characteristics of women in treatment. *American Journal on Addictions, 3*, 160–164.

Breslau, N., Davis, G. C., & Andreski, P. (1995). Risk factors for PTSD-related traumatic events: A prospective analysis. *American Journal of Psychiatry, 152*, 529–535.

Breslau, N., Davis, G. C., Andreski, P., & Peterson, E. (1991). Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry, 48*, 216–222.

Briere, J. (1996). *Trauma Symptom Checklist for Children test and manual*. Odessa, FL: Psychological Assessment Resources.

Brown, P. J., Stout, R. L., & Gannon-Rowley, J. (1998). Substance use disorders: PTSD comorbidity: Patients' perceptions of symptom interplay and treatment issues. *Journal of Substance Abuse Treatment, 14*, 1–4.

Carroll, K. (1998). *A cognitive-behavioral approach: Treating cocaine addiction* (NIH Publication 98-4308). Rockville, MD: National Institute on Drug Abuse.

Carroll, K., Rounsaville, B., & Keller, D. (1991). Relapse prevention strategies for the treatment of cocaine abuse. *American Journal of Drug and Alcohol Abuse, 17*, 249–265.

Center for Substance Abuse Treatment. (in press). *Trauma and substance abuse* (Chair: Lisa M Najavits; Co-Chair: Linda Cottler.). Washington, DC: US Government Printing Office.

Chu, J. A. (1988). Ten traps for therapists in the treatment of trauma survivors. *Dissociation: Progress in the Dissociative Disorders, 1*, 24–32.

Coffey, S. F., Dansky, B. S., & Brady, K. T. (2002). Exposure-based, trauma-focused therapy for comorbid posttraumatic stress disorder-substance use disorder. In P. Ouimette, & P. J. Brown (Eds.), *Trauma and substance abuse: Causes, consequences, and treatment of comorbid disorders* (pp. 209–226). Washington, DC: American Psychological Association Press.

Coffey, S. F., Schumacher, J. A., Brimo, M. L., & Brady, K. T. (2005). Exposure therapy for substance abusers with PTSD: Translating research to practice. *Behavior Modification, 29*(1), 10–38.

Cook, J. M., Walser, R. D., Kane, V., Ruzek, J. I., & Woody, G. (in press). Dissemination and feasibility of a cognitive-behavioral treatment for substance use disorders and posttraumatic stress disorder in the Veterans Administration. *Journal of Psychoactive Drugs*.

Covington, S. S. (2000). Helping women recover: A comprehensive integrated treatment model. *Alcoholism Treatment Quarterly, 18*, 99–111.

Dansky, B. S., Roitzsch, J. C., Brady, K. T., & Saladin, M. E. (1997). Posttraumatic stress disorder and substance abuse: Use of research in a clinical setting. *Journal of Traumatic Stress, 10*, 141–148.

Davidson, J. R. T. (2001). Recognition and treatment of posttraumatic stress disorder. *Journal of the American Medical Association, 286*, 584–588.

Donovan, B., Padin-Rivera, E., & Kowaliw, S. (2001). Transcend: Initial outcomes from a posttraumatic stress disorder/substance abuse treatment study. *Journal of Traumatic Stress, 14*, 757–772.

Evans, K., & Sullivan, J. M. (1995). *Treating addicted survivors of trauma*. New York: Guilford.

Fallot, R. D., & Harris, M. (Eds.). (2001). *Using trauma theory to design service systems. New directions for mental health services*. San Francisco: Jossey-Bass.

Foa, E. B., & Rothbaum, B. O. (1998). *Treating the trauma of rape: Cognitive-behavioral therapy for PTSD*. New York: Guilford.

Ford, J., Kasimer, N., MacDonald, M., & Savill, G. (2000). *Trauma Adaptive Recovery Group Education and Therapy (TARGET): Participant guidebook and leader manual*. Unpublished manuscript, University of Connecticut Health Center, Farmington, CT.

Herman, J. L. (1992). *Trauma and Recovery*. New York: Basic Books.

Hien, D., Cohen, L., Litt, L., Miele, G., & Capstick, C. (2004). Promising treatments for women with comorbid PTSD and substance use disorders. *American Journal of Psychiatry, 161*(8), 1426–1432.

Hien, D. A., Nunes, E., Levin, F. R., & Fraser, D. (2000). Posttraumatic stress disorder and short-term outcome in early methadone maintenance treatment. *Journal of Substance Abuse Treatment, 19*, 31–37.

Holdcraft, L. C., & Comtois, K. A. (2002). Description of and preliminary data from a women's dual diagnosis community mental health program. *Canadian Journal of Community Mental Health, 21*, 91–109.

Imhof, J. (1991). Countertransference issues in alcoholism and drug addiction. *Psychiatric Annals, 21*, 292–306.

Jacobsen, L. K., Southwick, S. M., & Kosten, T. R. (2001). Substance use disorders in patients with posttraumatic stress disorder: A review of the literature. *Amercican Journal of Psychiatry, 158*, 1184–1190.

Kadden, R., Carroll, K., Donovan, D., Cooney, N., Monti, P., Abrams, D., et al. (1995). *Cognitive-behavioral coping skills therapy manual: A clinical research guide for therapists treating individuals with alcohol abuse and dependence* (Vol. 3). Rockville, MD: US Department of Health and Human Services.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry, 52*, 1048–1060.

Kovach, J. (1986). Incest as a treatment issue for alcoholic women. *Alcoholism Treatment Quarterly, 3*, 1–15.

Linehan, M. M. (1993). *Skills training for treating borderline personality disorder*. New York: Guilford.

Linehan, M. M., Schmidt, H., Dimeff, L. A., Craft, J. C., Kanter, J., & Comtois, K. A. (1999). Dialectical behavior therapy for patients with borderline personality disorder and drug-dependence. *American Journal on Addictions, 8*, 279–292.

Marlatt, G., & Gordon, J. (1985). *Relapse prevention: Maintenance strategies in the treatment of addictive behaviors*. New York: Guilford.

McFall, M. E., Mackay, P. W., & Donovan, D. M. (1992). Combat-related posttraumatic stress disorder and severity of substance abuse in Vietnam veterans. *Journal of Studies on Alcohol, 53*, 357–362.

Meisler, A. W. (1999). Group treatment of PTSD and comorbid alcohol abuse. In B. H. Young & D. D. Blake (Eds.), *Group treatments for post-traumatic stress disorder* (pp. 117–136). Philadelphia, PA: Brunner/Mazel.

Meyer, R. (1986). How to understand the relationship between psychopathology and addictive disorders: Another example of the chicken and the egg. In R. Meyer (Ed.), *Psychopathology and addictive disorders* (pp. 3–16). New York: Guilford.

Miller, D., & Guidry, L. (2001). *Addictions and trauma recovery*. New York: Norton.

Monti, P. M., Kadden, R. M., Rohsenow, D. J., Cooney, N. L., & Abrams, D. B. (2002). *Treating alcohol dependence: A coping skills training guide* (2nd ed.). New York: Guilford.

Najavits, L. M. (2000). Training clinicians in the *Seeking Safety* treatment for posttraumatic stress disorder and substance abuse. *Alcoholism Treatment Quarterly, 18*, 83–98.

Najavits, L. M. (2002). *Seeking safety: A treatment manual for PTSD and substance abuse*. New York, NY: Guilford.

Najavits, L. M. (2004a). Treatment for posttraumtic stress disorder and substance abuse: Clinical guidelines for implementing the *Seeking Safety* therapy. *Alcoholism Treatment Quarterly, 22*, 43–62.

Najavits, L. M. (2004b). Assessment of trauma, PTSD, and substance use disorder: A practical guide. In J. P. Wilson & T. M. Keane (Eds.), *Assessment of psychological trauma and PTSD*. (pp. 466–491). New York: Guilford.

Najavits, L. M. (2004c). Treatment for the dual diagnosis of posttraumatic stress and substance use disorders (continuing education lesson). *Directions in Addiction Treatment and Prevention*.

Najavits, L. M., Gallop, R. J., & Weiss, R. D. (under review). Seeking Safety therapy for adolescent girls with PTSD and substance use disorder: A randomized controlled trial.

Najavits, L. M., Gastfriend, D. R., Barber, J. P., Reif, S., Muenz, L. R., Blaine, J., et al. (1998). Cocaine dependence with and without posttraumatic stress disorder among subjects in the NIDA Collaborative Cocaine Treatment Study. *American Journal of Psychiatry, 155*, 214–219.

Najavits, L. M., Runkel, R., Neuner, C., Frank, A., Thase, M., Crits-Christoph, P., et al. (2003). Rates and symptoms of PTSD among cocaine-dependent patients. *Journal of Studies on Alcohol, 64*, 601–606.

Najavits, L. M., Schmitz, M., Gotthardt, S., & Weiss, R. D. (in press). Seeking Safety plus Exposure Therapy-Revised: An outcome study in men with PTSD and substance dependence. *Journal of Psychoactive Drugs*.

Najavits, L. M., Sullivan, T. P., Schmitz, M., Weiss, R. D., & Lee, C. S. N. (2004). Treatment utilization of women with PTSD and substance dependence. *American Journal on Addictions, 13*, 215–224.

Najavits, L. M., Weiss, R. D., & Shaw, S. R. (1997). The link between substance abuse and posttraumatic stress disorder in women: A research review. *American Journal on Addictions, 6*, 273–283.

Najavits, L. M., Weiss, R. D., Shaw, S. R., & Muenz, L. R. (1998). "Seeking Safety": Outcome of a new cognitive-behavioral psychotherapy for women with posttraumatic stress disorder and substance dependence. *Journal of Traumatic Stress, 11*, 437–456.

Ouimette, P., & Brown, P. J. (2002). *Trauma and substance abuse: Causes, consequences, and treatment of comorbid disorders*. Washington, DC: American Psychological Association Press.

Ouimette, P. C., Finney, J. W., & Moos, R. H. (1999). Two-year posttreatment functioning and coping of substance abuse patients with posttraumatic stress disorder. *Psychology of Addictive Behaviors, 13*, 105–114.

Pearlman, L. A., & Saakvitne, K. W. (1995). *Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors*. New York: WW Norton.

Port, C. L., Engdahl, B., & Frazier, P. (2001). New research on the course of PTSD. *Amercican Journal of Psychiatry, 158*, 1474–1479.

Read, J. P., Bollinger, A. R., & Sharansky, E. (2002). Assessment of comorbid substance use disorder and posttraumatic stress disorder. In P. Ouimette & P. J. Brown (Eds.), *Trauma and substance abuse: causes, consequences, and treatment of comorbid disorders* (pp. 111–125). Washington, DC: American Psychological Association Press.

Resick, P. A., & Schnicke, M. K. (1993). *Cognitive processing therapy for rape victims: A treatment manual.* Newbury Park, CA: Sage.

Ries, R., Sloan, K., & Miller, N. (1997). Dual diagnosis: concept, diagnosis, and treatment. In D. Dunner (Ed.), *Current psychiatric therapy* (pp. 173–180). Philadelphia: Saunders.

Saladin, M. E., Brady, K. T., Dansky, B. S., & Kilpatrick, D. G. (1995). Understanding comorbidity between PTSD and substance use disorders: Two preliminary investigations. *Addictive Behaviors, 20*, 643–655.

Stewart, S. H. (1996). Alcohol abuse in individuals exposed to trauma: A critical review. *Psychological Bulletin, 120*, 83–112.

Stewart, S. H., Conrod, P. J., Pihl, R. O., & Dongier, M. (1999). Relations between posttraumatic stress symptom dimensions and substance dependence in a community-recruited sample of substance-abusing women. *Psychology of Addictive Behaviors, 13*, 78–88.

Triffleman, E. (2000). Gender differences in a controlled pilot study of psychosocial treatments in substance dependent patients with post-traumatic stress disorder: Design considerations and outcomes. *Alcoholism Treatment Quarterly, 18*, 113–126.

Triffleman, E., Carroll, K., & Kellogg, S. (1999). Substance dependence posttraumatic stress disorder therapy: An integrated cognitive-behavioral approach. *Journal of Substance Abuse Treatment, 17*, 3–14.

Trotter, C. (1992). *Double bind.* Minneapolis: Hazelden Press.

Weiss, R. D., Griffin, M. L., Greenfield, S. F., Najavits, L. M., Wyner, D., Soto, J., et al. (2000). Group therapy for patients with bipolar disorder and substance dependence: Results of a pilot study. *Journal of Clinical Psychiatry, 61*, 361–367.

Weiss, R. D., Najavits, L. M., & Mirin, S. M. (1998). Substance abuse and psychiatric disorders. In R. J. Frances, & S. I. Miller (Eds.), *Clinical textbook of addictive disorders* (2nd ed., pp. 291–318). New York: Guilford.

Ziedonis, D., & Fisher, W. (1996). *Motivation-based assessment and treatment of substance abuse in patients with schizophrenia. Directions in Psychiatry* (Vol. 16, Lesson 11). New York: The Hatherleigh Company.

Zlotnick, C., Najavits, L. M., & Rohsenow, D. J. (2003). A cognitive-behavioral treatment for incarcerated women with substance use disorder and posttraumatic stress disorder: Findings from a pilot study. *Journal of Substance Abuse Treatment, 25*, 99–105.