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Addressing Trauma Among Women With Serious Addictive Disorders: Treatment Models, Program Factors, And Potential Mediators

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Abstract

A large majority of women entering addiction treatment present significant symptoms of trauma related to physical or sexual abuse. Despite research indicating that trauma interventions are integral to women's successful recovery from addiction, many programs do not adequately address violence-related trauma. This chapter provides a review of the literature on trauma among women with addictive disorders and several manual based interventions developed to address co-occurring addiction and trauma-related disorders. One intervention, "Beyond Trauma," which has become increasingly popular among community based programs is described in detail. Beyond Trauma appears to have several advantages over other therapies for treating trauma and addiction in women, including 1) a theoretical foundation that draws on relational theory as a guide to the intervention, 2) a broad based approach that can be utilized by a variety of professional and paraprofessional staff members, 3) a focus that goes beyond treating women with a formal diagnosis of post traumatic stress disorder to include treatment for an array of symptoms and problems associated with trauma, and 4) gender-appropriate use of expressive arts in its curriculum. The chapter also discusses treatment program environment factors that may be critically important to treatment outcome for women: 1) whether the program is gender specific, 2) the degree of emphasis on peer involvement in recovery, 3) program recognition of the value of knowledge-based recovery experience, 4) program facilitation of cohesion, 5) the empowerment of clients in decisions affecting the program and 6) skills training relevant to managing moods, relationships and a variety of problems that women face during recovery. Possible mechanisms of change for Beyond Trauma are explored with particular emphasis on the variety of ways the intervention attempts to impact problem areas experienced by women (e.g., mental health functioning self esteem and social support). Recommendations for future research in the treatment of trauma and addiction-related disorders in women are outlined.

Keywords

Trauma; Women; Addiction; Recovery; Post Traumatic Stress Disorder

Introduction

Treatment approaches for addictive disorders have increasingly recognized the need to address co-occurring psychiatric problems. Thus, many treatment programs have made provisions for clients to receive evaluations for psychiatric problems through referrals to outpatient clinics. The integration of treatment for psychiatric symptoms into routine interventions within addiction programs has been more difficult. For example, some peer-oriented approaches to recovery appear to be effective for helping individuals establish abstinence from substances and develop a program of recovery (Kaskutas et al., 1996), but often do not sufficiently address comorbid psychiatric issues comorbid with substance use disorders (Polcin, 2000). Although referrals to mental health professionals outside treatment programs are viable options for many dual diagnosis clients, there are drawbacks to this approach. First, there may be problems motivating clients to attend outside appointments. Second, individuals with substance use disorders are often wary of mental health professionals because of their perception that these professionals do not sufficiently understand addiction problems and view addiction problems as secondary to other psychiatric disorders (Polcin, 1997). Finally, referring to outside professionals can result in disaggregated treatment and precludes addressing the needs of the whole person. The need to integrate psychiatric interventions into addiction recovery programs is therefore critical.

This chapter will review the prevalence and impact of trauma among women in addiction programs beginning with a review of literature that documents the high prevalence of trauma among these women and highlights the insufficiency of trauma related issues being addressed in addiction programs. A broad definition of trauma-related problems is adopted that includes both symptoms of post traumatic stress disorder (PTSD) and other trauma-related symptoms that do not meet PTSD criteria but nonetheless can have a significant impact on the success of sustained recovery. While PTSD has received increased attention in the literature and in treatment programs, less has been devoted to investigating and addressing the impact of trauma in women whose symptoms do not meet diagnostic criteria for PTSD.

Structured treatment interventions for women with histories of trauma have typically been based upon the needs of those who meet DSM-IV Criteria for PTSD. In this chapter we present a manual intervention that was designed to address a broader view of trauma and its effects, "Beyond Trauma: A Healing Journey for Women." In addition to addressing more diverse ways that women have been affected by traumatic experiences, the intervention lends itself to easy integration into addiction recovery programs in the community due to its emphasis on peer-oriented learning. A discussion of how the intervention might interact with program environment characters and possible mechanisms of how it might facilitate improvement of symptoms is included. Although Beyond Trauma is widely used in recovery programs and enjoys anecdotal reports of effectiveness (Messina, 2006), scientific studies that provide rigorous, empirical data to support its effectiveness are lacking. Although two preliminary studies (i.e., Messina, 2005, 2006) testing the efficacy of the intervention are currently underway with criminal justice populations, there is a clear need for additional research that is broader in scope. The chapter closes with a discussion of additional studies that are needed to validate Beyond Trauma.

Prevalence Of Trauma And PTSD Among Women With Substance Abuse Problems

While studies vary in their definition and assessment of trauma among women with substance abuse problems, they almost universally report high prevalence rates and detrimental effects on outcome. Over half of all drug-dependent women in treatment report a

history of childhood trauma (Haller and Miles, 2004); at least one in four report childhood sexual abuse (Boles et al., 2005; Haller and Miles, 2004). Men and women receiving treatment for substance use disorders who report childhood sexual abuse histories have more co-morbid psychiatric disorders, criminal activities, problem severity, and post treatment relapse than other clients. The harmful effects of childhood trauma among women with substance abuse problems are not limited to those entering treatment. A general population study of 316 Swedish women (Spak et al., 1997) found that sexual abuse prior to age 13 was the strongest predictor of subsequent alcohol dependence/abuse.

Studies also document high rates of lifetime trauma (adult or childhood) in substance abuse treatment samples of women. Najavits et al. (1997) cited studies indicating that a majority of women in substance abuse treatment (55 to 99%) reported a lifetime history of trauma. Treatment seeking women are more likely than men to report any lifetime trauma (Ouimette et al., 2000; Pirard et al., 2005), a larger number of traumatic events, and more sexual, serial, and familial assault (Grice et al., 1995; Kubiak, 2004). Trauma history is associated with co-morbid psychiatric disorders (Grice et al., 1995; Ouimette et al., 2000), severe alcohol-related problems, poly-drug use (Pirard et al., 2005), and greater substance use relapse (Kubiak, 2004).

The role of PTSD in the association between trauma history and substance abuse has received substantial research attention. Several community and epidemiological studies document the incidence of co-morbid PTSD and substance abuse (Chilcoat and Menard, 2003). These studies found individuals with PTSD had a higher risk for drug use disorders, particularly poly-drug dependencies, as well as alcohol dependence and more severe alcohol and drug use related problems. For example, in a study addressing substance use among individuals in the general population with PTSD Breslau (2003) concluded that PTSD increased risk for substance abuse as well as other psychiatric disorders.

A related body of research has examined trauma-related PTSD in treatment seeking substance abusing samples. This research suggests large proportions (30 to 59%) of women with substance use disorders (SUDs) also have PTSD (Grice et al., 1995; Najavits et al., 2003; Najavits et al., 1997). PTSD-SUDs comorbidity is associated with more severe psychological problems and greater use of substance abuse treatment (Najavits et al., 1997). Consistent with community epidemiological data (e.g., Kessler et al., 1995), associations between trauma and PTSD are stronger for women than men in treatment seeking samples (Ouimette et al., 2000).

Despite extensive research documenting the widespread prevalence of PTSD-SUDs comorbidity, the etiology and treatment of these co-occurring disorders is not well understood (Back et al., 2006). Even less well understood is the relationship between traumatic experiences that do not result in a formal diagnosis of PTSD and their impact on the development of recovery from substance use disorders. A broader understanding of the impact of traumatic experiences and substance use recovery is of great importance because trauma is very common in substance using women. Reynolds et al (2005) reported that while 94% of Australian inpatients with SUDs reported some sort of trauma, only 38.5% of those reporting trauma met PTSD criteria. Close examination of data on women in substance abuse in the United States (Dansky et al., 1996; Dansky et al., 1995; Fullilove et al., 1993; Najavits et al., 1997) also indicates that 40% to 60% of these substance abusing women who report trauma do not meet criteria for current PTSD. Similarly, Najavits et al (2003) reported a high number of lifetime trauma events in cocaine dependent women, even those without PTSD.

The few studies that examined non-PTSD related trauma have reported mixed findings. A recent prospective study of young adult men and women examined the role of trauma in the development of SUD's and found that PTSD, but not trauma without PTSD, increased risk for drug use (Breslau et al., 2003). However, trauma exposure, regardless of PTSD diagnosis, did not increase risk for alcohol abuse or dependence. However, there may be differences by gender. A retrospective analysis of data from this study examined women only and found that trauma, regardless of PTSD, was associated with higher risk for alcohol use disorders. Clearly, there is a need for more studies to improve our understanding of women's complex and diverse responses to trauma (Becker-Blease and Freyd, 2005; Brier and Jordan, 2004).

Treatment Approaches For Co-Morbid PTSD And Substance Abuse

The substance abuse treatment literature has provided limited information to practitioners about how to address PTSD. In particular, guidance is lacking for how practitioners might address sub-clinical PTSD symptoms in their treatment of women.

The narrower issue of PTSD-SUDs, however, has received some attention and a number of interventions have been developed to address these co-occurring disorders. Treatment models for PTSD-SUDs include Seeking Safety (Najavits, 2001), exposure based therapies (e.g., Triffleman, 2000) and combinations of exposure and cognitive behavioral approaches (for a review see Back et al., 2006). All of these treatments use manual interventions consisting of 16 to 25 individual sessions, with the exception of SS, which has also been used as group treatment. As Back et al. (2006) point out, consensus is lacking as to which approaches are best and whether different approaches have advantages for specific populations. A selection of these interventions is described below along with a description of the limited studies supporting their effectiveness.

SS was designed to treat PTSD-SUDs in men and women in an integrated manner that addresses both PTSD and substance use symptoms. It consists of 25 sessions that focus mainly on the improving the present lives of individuals. Thus, it seeks to help clients develop safety in their relationships, thinking, behavior, and emotions. SS attempts to achieve these goals by 1) using psychoeducation about trauma and addiction, 2) teaching a variety of coping skills, and 3) helping clients make choices to gain more control over their lives. In addition, case management is included as a way of helping clients to access services for other needs they present.

Seeking safety (SS) is clearly the most studied PTSD-SUDs intervention. Research has been conducted in diverse settings and has included including 2 multi-site trials: 1) the Women, Co-Occurring Disorders, and Violence Study WCDVS) (McHugo et al., 2005b) and 2) a study of 200 homeless women (Najavits, 2007). Recent studies have also been conducted using controlled trials (Najavits, 2007).

SS was also included among the 4 treatments studied across 9 sites in the WCDVS (McHugo et al., 2005b), one of the largest investigations of trauma treatment among women in recovery (see review below). All of the treatments studied, including SS, performed modestly better than treatment-as-usual comparison conditions (Cocozza et al., 2005; Morrissey et al., 2005a). However, no significant differences were reported among the trauma intervention conditions. Other studies of SS have reported similar findings (Najavits, 2007). Overall, studies show that SS outperforms treatment as-usual. Hien et al. (2004) noted that substance use and mental health outcomes associated with SS appear to be comparable to active comparison interventions, such as relapse prevention interventions.

Other interventions for combined PTSD-SUDs use exposure based treatments (see Back et al., 2006 for a review). These techniques use in vivo or imaging procedures to present the client with stimuli associated with their trauma. The therapist works with the client to desensitize traumatic reactions to these stimuli and thereby establish a sense of control and self efficacy. Although exposure based interventions have been shown to be effective for PTSD without substance abuse, they have not been extensively studied for clients who present with both substance use and PTSD disorders (Back et al. 2006). An exception is a study conducted by Triffleman (2000). The intervention consists of twice weekly therapy sessions over a 20 week time period and integrates relapse prevention, coping skills, psychoeducation, and in vivo exposure techniques. Although individuals receiving the intervention appear to improve on PTSD and substance use measures, these improvements are not significantly different from improvements among clients in comparison interventions, such as twelve step facilitation (Back et al., 2006). One potential reason for these findings may be that studies to date have used small sample sizes and may not have sufficient power to detect differences.

A somewhat different exposure based treatment, Concurrent Treatment of PTSD and Cocaine Dependence (CTPCD), has been described by Back et al. (2006). This intervention was designed to address combined PTSD with cocaine dependence. The treatment includes sixteen 90-minute therapy sessions delivered once or twice per week. It is delivered in manual format and uses imagined and in vivo exposure therapy for PTSD symptoms and cognitive-behavioral relapse prevention techniques for cocaine dependence. Similar to preliminary studies for other exposure based therapies for PTSD-SUDs, research has shown that individuals who receive the intervention make improvements on substance use and PTSD symptoms. However, larger studies are needed that compare CTPCD with other approaches.

In sum, research provides some support for integrated PTSD-SUD treatment, particularly in terms of reducing symptoms of both substance use and trauma. However, there are several concerns worth noting. First, most of these interventions were not designed to be gender specific and do not address larger gender issues, such as discrimination and prejudice. Rather, they address PTSD among a range of clients with SUDs. For a variety of reasons women may need different interventions than men to heal from the experience of traumatic events. Second, larger studies are needed to assess how trauma informed interventions compare to other substance use interventions. To date, few differences have been found between women receiving PTSD interventions and active comparison interventions, such as 12-step facilitation or relapse prevention. Perhaps most important, to date studies only included individuals with a formal diagnosis of PTSD, thus excluding a large portion of women in recovery who have experienced trauma but do not meet PTSD diagnostic criteria.

The Women, Co-Occurring Disorders, And Violence Study (WCDVS)

A unique study targeting the treatment of women with trauma in multi-service agencies that provided mental health, substance abuse and other community services was conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) (McHugo et al., 2005b; Veysey and Clark, 2004). The study consisted of a large, multi-site investigation conducted between 2001 and 2003 and examined a broad array of systems and service intervention factors. Nine different multi-service agencies across the United States providing assistance with some combination of substance abuse, mental health, children's services, and healthcare participated as the study's intervention programs. Staff members in these agencies consisted of a variety of professionals as well as peer counselors who were in recovery from addiction and trauma. Treatment programs were diverse and included inpatient, outpatient, mental health, and addiction programs. Four different manualized

trauma interventions were used across the 9 intervention programs, including the Trauma Recovery and Empowerment Model (TREM) (Harris and Copeland, 2000), Seeking Safety (Najavits, 2001), Addiction and Trauma Recovery Integrated Model (ATRIUM) (Miller and Guidry, 2001), and 4) TRIAD Women's Group (Fearday et al., 2001). Unlike some of the aforementioned interventions, these were delivered in a group format. Each intervention program selected a local program to serve as a comparison (McHugo et al., 2005b).

One problem with the study from a scientific standpoint was the programs were allowed to adapt interventions to their own needs and it is uncertain how this affected fidelity to the intervention delivered. Some sites also added other trauma specific groups in addition to the above interventions, most commonly domestic violence groups for women. This could obviously contaminate the effects of the targeted interventions. Having the intervention programs select their own comparison programs is also problematic because various biases could have affected the selection. For example, intervention programs may have had a vested interest in showing better outcome relative to comparison conditions. Thus, they may have had an incentive to select comparison programs with which they felt they would compare favorably.

Seeking Safety has already been described above. The other three interventions used had noticeable similarities with SS and overlapped with each other to a considerable extent. For example, TREM focused on skill development in multiple areas of functioning and empowerment of the women. Like SS, it used cognitive behavioral and psychoeducation techniques to a significant extent. ATRIUM used a group format to provide psychoeducation about trauma and addiction as well as expressive activities to help women conceptualize their trauma differently. Like SS, developing adaptive strategies in women's current life to mitigate the destructive sequelae of trauma was important. Thus, there were elements that were didactic and process oriented. TRIAD was also a group oriented approach that focused on teaching interpersonal skills such as setting boundaries, as well as improving self acceptance, management of emotions, and tolerance or stress.

A total of 2729 women, 1415 in the trauma-informed intervention condition and 1314 in the treatment-as-usual condition, were enrolled into the study. Study participants were interviewed at baseline, three, six, nine and 12 months post enrollment. Outcome measures were administered at baseline, 6 and 12 month; 2006 and 2026 women completed the 6 month- and 12-month interviews, respectively. Study findings revealed modest effect sizes, with the trauma interventions being more effective than comparison interventions. At the 6-month follow-up, women in the intervention conditions showed greater improvements on measure of PTSD and drug use than those in the control conditions; differences on mental health symptoms were nearly significant but no differences were found for alcohol use (Cocozza et al., 2005; Morrissey et al., 2005a). At 12-month follow-up, small but significant improvements were found for mental health symptoms in the intervention group compared to the control condition; but no effects were found for substance use outcomes (Morrissey et al., 2005). Effect sizes varied across programs, with increased effects for programs that provided more integrated counseling. Specifically, sites at which trauma, mental health and drug use were all addressed in individual or group sessions produced more favorable results on mental health and alcohol and drug problem severity (Cocozza et al., 2005).

Many community based recovery programs do not have professional mental health staff to provide substance abuse and trauma integrated services. Thus, there is a need for trauma interventions that can be integrated into peer oriented community programs that are staffed largely by paraprofessionals. An interesting finding of the WVCDS was that experiential knowledge based on recovery experience appeared to be important in the success of the project. Mazelis (2005) noted that integrating recovering women who had trauma into the

intervention was crucial for implementation of both the treatment intervention and collection of data for the research.

The WCDVS is noteworthy as the first large effectiveness study of trauma intervention for treatment seeking women with SUDs and because of its inclusion of person and program level factors. However, several limitations are worth noting. First, the interventions took place in multi-service agencies which included mental health professionals and integration of mental health services was found to be associated with better outcome. As noted above, many community-based alcohol and drug recovery programs do not employ mental health professionals. Second, a variety of factors confound the findings. These include heterogeneity of approaches within intervention and comparison programs (Cocozza et al., 2005) and nonrandom assignment of participants (Noether et al., 2005). Variability in the trauma treatments employed by intervention programs and inconsistent implementation of trauma treatments used within each program (programs adapted manuals as they wished) add to concern about the methods employed (Moses et al., 2003). There was also heterogeneity among sites in both conditions in terms of their integration of mental health, substance abuse, and trauma-specific services, involvement of trauma recovering clients in treatment, and staff training in trauma (McHugo et al., 2005b; Morrissey et al., 2005). Hence, implications of the modest effects found for the trauma interventions require further evaluation.

The Difficulty Of Addressing Trauma In Substance Abuse Treatment Programs

Community-based alcohol and drug treatment programs typically do not use the treatment interventions for PTSD-SUDs that are available. One reason is that they are frequently not aware of new interventions for PTSD-SUDs. This underscores the need for improved knowledge transfer strategies to inform programs about new interventions. However, a more salient issue is many of the current interventions were designed to be used by master's level mental health professionals and community based recovery programs employ few such individuals.

While lack of training among staff in most community-based treatment programs (Triffleman, 2003) is clearly a barrier, the terminology used by trauma treatment professionals can also be problematic. Due to their focus on psychiatric disorders and the use of terms such as "clinician," "therapist," and "treatment" in manuals and guidelines (e.g., Najavits, 2001; Najavits, 2004), evidence-based treatments such as "Seeking Safety" are often viewed by community social model programs as necessitating implementation by mental health professionals in psychiatric clinics and, thereby, outside their purview (Susan Blacksher, personal communication, May 15, 2007). Although community programs do address co-morbid problems with outside referrals to mental health services, coordination between caregivers and compliance with recommendations is frequently a problem (McHugo et al., 2005a). Hence, there is a need to integrate trauma services into residential programs and make delivery of those services feasible and responsive to the constraints (such as costs and limited professional training of staff) under which most real-world programs operate.

Because of barriers to disseminating interventions and training staff on the available interventions, programs often experience problems addressing trauma and in general, lack coherent guidelines to inform their treatment approaches. Trauma issues in these programs may be inappropriately confronted, addressed using 12-step recovery principles, or ignored. Confrontational approaches designed to "break down" denial, while popular in some residential programs, are counterproductive for treating trauma (Polcin, 2003). In most

cases, such approaches replicate abusive interactions and increase the risk of relapse. Twelve-step recovery principles, a central part of recovery in social model residential programs, also have limitations for trauma treatment. Perhaps most salient is the acceptance of powerlessness and turning over one's life to an external Higher Power (Kaskutas, 1996) which directly contrasts with the emphasis on empowerment and increased self efficacy, recommended and incorporated into most approaches to trauma treatment (e.g., Covington, 2003).

Some community based recovery programs have a history of ignoring or minimizing the symptoms of trauma because they view them as secondary to establishing recovery from addiction. Ignoring trauma and focusing solely on recovery from addiction fails to consider findings that addressing multiple problem areas, especially co-morbid trauma-related psychiatric conditions, is necessary for sustained recovery (National Institute on Drug Abuse, 1999). In addition, women in addiction treatment desire trauma-focused treatment. Najavits et al. (2004) reported that 80% of the 77 women with PTSD and substance abuse problems they recruited for their outpatient treatment study preferred treatment for PTSD alone, or combined PTSD and substance abuse treatment, as opposed to substance abuse treatment alone. In addition, a small subgroup of women perceived the generic mental health services they received during the prior 30 days, such as individual psychotherapy or medication, as harmful.

Beyond Trauma: A Healing Journey For Women

Beyond Trauma was designed to be readily implemented in community based "social model" residential programs and does not require staff to have extensive training in mental health issues. In keeping with recommendations from the WCDVS (Mazelis, 2005) to integrate "Consumer/Survivor/Recovering" (CSR) women into treatment for successful outcome, Beyond Trauma also emphasizes active involvement of women recovering from trauma, substance abuse, or both and offers numerous opportunities for workshop participants to contribute to the process and content of the intervention.

Beyond Trauma is an 11-session-manualized group treatment for women based on theory as well as the clinical experiences of the authors. The manual integrates several theoretical models, including relational, addiction, and trauma theories. Relational theory (Miller, 1976) explains women's psychological development as based on connectedness as opposed to separation and individuation. Relational theory helps underscore the complex associations between women's relationships and addiction to substances.

The underlying trauma theory used to develop Beyond Trauma focuses on the need to create an environment of sanctuary for survivors (Bloom, 2000). The intervention includes a three-stage model for building safety and addresses the physiological impact of trauma (Levine, 1997), remembrance and mourning losses associated from traumatic events, and reconnection with oneself and others (Herman, 1997). The manual goes beyond a symptomatic/disorder focus to address broader facets of healing from trauma, including social influences impacting recovery. Thus, Beyond Trauma use a holistic health model of addiction (Covington, 2002; White et al., 2002) that highlights the interconnectedness of trauma, abuse, and ongoing stress in the lives of women. Establishing a recovery program for addiction is viewed as integral to recovery from trauma.

The Beyond Trauma curricula include a "facilitator" manual, participant workbook, and 3 instructional videos (two for facilitators, one for clients). The facilitator's manual has two parts. The first part provides information about trauma for a basic understanding of the depth and complexity of the issues to help facilitators work more effectively with the group. The second part includes lesson plan-like session outlines. The connection between trauma and

substance abuse is recognized and integrated throughout the curriculum. The intervention content comprises 3 modules: a) Violence, Abuse, and Trauma; b) Impact of Trauma; and c) Healing from Trauma. The focus on safety and coping skills is exemplified in the use of exercises to help reduce symptoms and to enhance feelings of being grounded and safe. The coping skills component includes the expression and containment of feelings as a critical part of trauma work. Overall, *Beyond Trauma* promotes a strength-based approach that elicits and enhances the strengths and skills of women.

Beyond Trauma may have advantages over other trauma interventions, such as *Seeking Safety*, particularly for use in community-based recovery programs for women. Advantages include:

1. It was designed specifically for use with women and incorporates a gender-appropriate focus on relational theory and expressive arts. The role of gender and relationships in women's trauma and substance abuse has been described previously. Documented evidence for the importance of nonverbal therapeutic material for women (DeYoung, 2003) and for difficulties in verbal expression for some women with childhood traumatic experiences (Wolfe and Kimerling, 1997) supports the use of expressive arts in treatment.
2. It was developed for use with women in community-based programs and other resource poor settings in which women substance abusers may be treated, such as correctional facilities (Covington, 2003).
3. It uses a broad-based approach, seen in the use of a variety of techniques, i.e., psycho-education, cognitive-behavioral techniques, expressive arts, mind-body work, and the focus on emotional development and healthy relationships, including sexuality and support for sobriety.
4. As discussed previously, it does not necessitate implementation by clinicians, instead allowing for implementation by staff with a wide range of training and experience. Congruent with social model recovery programs in which experiential learning via recovered peers and staff is a key feature, the manual does not list educational qualifications or professional training in the description of a "good group facilitator" (Covington, 2002, p. 38), mentioning that the facilitator may be a recovered trauma survivor. Likewise, the materials are designed to be user-friendly, interactive, and self-instructive and include workbooks for participants.
5. It comprises 11 group sessions compared to the average 20–25 sessions of other trauma interventions. Thus, it may be a better match for resource strained residential programs. Unlike some manual interventions, it is specifically designed to be used in groups, which is an appealing modality for many women. Indeed group therapy, while reported to be infrequently used in the prior 30 days by women with substance abuse and PTSD who are entering treatment, is among treatments viewed positively by trauma survivors (Najavits et al., 2004).

Notably, interest in *Beyond Trauma* has increased significantly in recent years among community-based recovery programs for women as evidenced by orders and re-orders of the manual from across the U.S. and a recently state-funded grant to CAARR (Blacksher, 2007 16676) to provide training in *Beyond Trauma*. Although anecdotal reports of effectiveness abound, scientific investigations have been lacking. Two exploratory NIH funded studies are currently underway (Messina, 2005; Messina, 2006). Both use *Beyond Trauma* within a larger gender-responsive treatment model for women, one in a prison and in a drug court setting. They have the methodological strengths of employing randomized controlled designs and they assess for treatment adherence.

Additional studies on Beyond Trauma, as for other trauma interventions discussed previously, are needed in a variety of areas. First, studies are needed that assess efficacy in non-criminal justice involved populations, such as diverse groups of women found in community based recovery programs. Second, studies also need to examine how the effectiveness of the manual might be affected by characteristics of the social environment where it is delivered. These include characteristics such as the degree of structure provided by the environment, the level of cohesion among clients, the extent to which peer support and peer helping is emphasized, and the degree to which skill training is emphasized, such as strategies for improving communication and self care. Finally, studies need to investigate the mechanisms of how the intervention works. For example, potential mediators might include improved self-efficacy, self esteem, higher recovery related social support, or changes made in interpersonal relationships outside the treatment program. Suggestions for how researchers might conduct the types of studies needed on Beyond Trauma are reviewed below.

Program Environment Factors

A variety of researchers have stated that addiction treatment evaluations must go beyond randomized clinical trials to assess social environment characteristics, including the context of the intervention (Moos, 1997; Polcin, 2006). However, program environment variables are both under-studied and under-documented (Moos and King, 1997). There are a number of program variables that might interact with Beyond Trauma to influence treatment outcomes. For example, programs that are specifically designed for women may reinforce important aspects of the Beyond Trauma intervention, which has also been specifically designed for women. Programs that emphasize issues addressed in the manual might be more effective than programs that do not emphasize them. Thus, programs that are gender specific, emphasize peer involvement in the recovery process, recognize the value of knowledge based on recovery experience, facilitate cohesion, empower clients in decisions affecting the program and teach skills relevant to managing moods and relationships might enhance the positive impact of Beyond Trauma. Because community based social model recovery programs exemplify these characteristics they may be excellent sites for studying the effectiveness of Beyond Trauma. Social model programs may also be excellent venues for studying Beyond Trauma because they treat large numbers of women who have characteristics associated with trauma, such as lower socioeconomic status, history of homelessness, and use of public assistance (Lown et al., 2005; Morrisey et al., 2005).

Potential Mediators

In addition to studies documenting the overall effectiveness of Beyond Trauma and the types of environments where it is most effective, it would be helpful to investigate the mechanisms of how it works. The Beyond Trauma manual attempts to effect positive changes in a number of ways. There is an attempt to decrease feelings of stigma and low self esteem by normalizing the experience of trauma. This is accomplished by providing information about the prevalence of trauma and its role in substance use disorders. Thus, improved self esteem could be one pathway to better outcome for women receiving the intervention.

Other pathways worth studying center on problems addressed by the skill training interventions within the manual. These include things like helping women improve self efficacy in terms of managing moods, relationships, self care needs and problems that arise during recovery. The resulting increase in self efficacy and skill development in these areas may be critical pathway to better outcome.

Social support for recovery from both trauma and addiction may be key pathways as well. A number of studies suggest that social networks supportive of sobriety prevent substance use relapse, while associating with substance users increases risk for relapse (Beattie and Longabaugh, 1997; Billings and Moos, 1983). The development of a recovery-oriented social network in particular predicts abstinence at 6-month and 5-year follow up post outpatient treatment (Weisner et al., 2003).

The role of social support in recovery from co-occurring trauma and substance abuse needs additional study. Building social support from other women who have also experienced traumatic events is an important part of Beyond Trauma. Therefore, it might be an important mediator of long term outcome.

It is also possible that Beyond Trauma impacts women's life experiences after leaving treatment and these may be the key factors associated with outcome. Interpersonal conflicts, including partner violence, infidelity, and mental/physical abuse are frequently associated with women's relapse post treatment (Sun, 2007). Cummings et al's (1980) found that negative emotions, interpersonal conflict, and social pressure covered 72% of all relapses for both men and women. Indeed, for some women with trauma history, interpersonal ties that are destructive may directly contribute to exacerbating trauma-related symptoms (Savage and Russell, 2005). The Beyond Trauma intervention is designed to assist women in developing skills to avoid these types of destructive relationships and the extent to which they are able to succeed in this endeavor after treatment is complete could certainly play a key role in mediating outcome.

Conclusion

Experiences of trauma are common among women with substance abuse problems, yet trauma has often been neglected in their treatment and long term recovery. In recent years a number of manual interventions have been developed to treat trauma among women with addiction problems, including Seeking Safety, other broad based interventions that were used in the Women, Co-Occurring Disorders, and Violence Study (ATRIUM, TRIAD and TREM) and exposure interventions. While some research has shown that women taking part in these interventions make significant improvements, some study designs had significant limitations and others showed no difference compared to other active treatment interventions. In addition, most of the existing studies used manual interventions to specifically study PTSD rather than the broader array of symptoms that women impacted by trauma experience.

Beyond Trauma is a recently developed intervention that addresses many of these concerns (Covington, 2003). It is broad enough in scope to be used to treat women with a variety of trauma histories including those who meet diagnostic criteria for PTSD. Unlike some of the other interventions, Beyond Trauma is specifically designed for women and focuses on gender issues, specifically relationships and addiction for women. Thus, trauma is addressed within the context of issues that are integral for women (e.g., empowerment, self efficacy, peer support from other women who have been victims of trauma, and conceptualization of identity through relationships rather than separation). Beyond Trauma is based on a theoretical foundation that draws extensively on relational theory to guide interventions. Other advantages of this intervention include: 1) It can be utilized by a variety of professional and paraprofessional staff members and 2) It incorporates gender-appropriate use of expressive arts in its curriculum to engage women who are less verbal.

There are currently two randomized trials underway to test the efficacy of Beyond Trauma. Both involve studying women in the criminal justice population. Thus, there is a need to

study Beyond Trauma in the broader context of community based recovery programs. Beyond Trauma may be most effective within programs designed for women, but without well designed studies in mixed and single gender programs this remains an open question.

Studies are also needed that address specific program environment characteristics that might interact with the trauma interventions. In particular, the characteristics of social model recovery programs seem to reinforce aspects of the Beyond Trauma intervention, such as empowerment of clients, involvement of clients in the intervention process, and social support. Finally, studies are needed that attempt to depict the mechanisms of how the intervention helps women. As a broad based intervention, Beyond Trauma attempts to help women in many different ways, including improving self efficacy, self esteem, skills to manage a variety of issues, social support for recovery from both trauma and addiction and mobilization of women's existing strengths. In addition, the intervention helps women construct a post treatment lifestyle that avoids the types of destructive relationships and events that can result in relapse. Studying how improvements in all of these areas correlate with long term outcome will be of value to improving substance abuse treatment for women.

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