

NIH Public Access

Author Manuscript

Prof Psychol Res Pr. Author manuscript; available in PMC 2013 June 05

Published in final edited form as:

Prof Psychol Res Pr. 2011; 42(1): 40–46. doi:10.1037/a0022346.

Significant Other Enhanced Cognitive-Behavioral Therapy for PTSD and Alcohol Misuse in OEF/OIF Veterans

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Abstract

This manuscript describes early work to develop a cognitive-behavioral therapy protocol for returning OEF/OIF Veterans with co-occurring posttraumatic stress disorder (PTSD) and alcohol use disorders (AUD). Based on the unique characteristics of this population, and on the literature supporting cognitive behavioral coping skills and significant other involvement for both PTSD and for AUD, the new therapy involves both of those components. The paper includes brief descriptions of two patients who were successfully treated with this approach. Although preliminary, these case studies suggest that cognitive-behavioral therapy enhanced by significant other involvement may be a promising approach for OEF/OIF Veterans with PTSD-AUD.

Keywords

Posttraumatic stress disorder; alcohol use disorders; cognitive behavioral therapy; Veterans

Clinicians are well aware of the complexity of psychological issues compounding the readjustment period for returning OEF/OIF Veterans. Like Veterans of the Vietnam War, these Veterans are at risk for posttraumatic stress disorder (PTSD), and co-occurring alcohol misuse (Hoge, Castro, Messer, McGurk, Coffman et al., 2004). The co-occurrence of PTSD and alcohol use disorders (AUD) has been well-established. A consistent finding in the literature is that patients with comorbid PTSD and AUD are lower-functioning than patients with either AUD or PTSD alone (Riggs, Rukstalis, Volpicelli, Kalmanson, & Foa, 2003). Patients with comorbid PTSD and substance abuse diagnoses demonstrate more substance-related problems, greater psychological distress, and less social support, even when compared to substance abusers with other psychiatric disorders (Ouimette, Ahrens, Moos, & Finney, 1998).

Three treatment protocols have been developed to simultaneously address PTSD and cooccurring substance misuse. All of these include cognitive-behavioral skills-based components. One protocol focused exclusively on cocaine abusers with PTSD and has been studied in one trial (Brady, Dansky, Back, Foa, & Carroll, 2001), a second treatment was

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Editor's Note: This article was submitted in response to an open call for submissions concerning the provision of Psychological Services by practitioner psychologists to Veterans, Military Service Members, and their Families. This collection of 12 articles represents psychologists' perspectives on the mental health treatment needs of these individuals along with innovative treatment approaches for meeting these needs. JEB

developed by Triffleman and was studied in one sample of drug abusers (Triffleman, Carroll, & Kellogg, 1999). A third treatment, Seeking Safety (Najavits, 2002), has been studied more extensively. Seeking Safety is a cognitive-behavioral skills-based treatment originally developed as a group treatment for women with PTSD and substance use disorders (SUD) and it has been tested in several different populations. A recent open trial of Seeking Safety in a sample of OEF/OIF Veterans suggested it may be a promising approach (Norman, Wilkins, Tapert, Lang, & Najavits, 2010), but there have been no randomized controlled trials of Seeking Safety with Veterans.

Results thus far suggest that integrated treatments are effective for PTSD and co-occurring substance abuse. However, in considering how best to help OEF/OIF Veterans who are struggling with co-occurring PTSD and alcohol misuse, there are aspects of this population that call for substantial modifications to existing treatments. Importantly, their traumatic events happened while deployed to a combat zone and, therefore, outside of their typical social environment. In addition to being exposed to a potentially large dose of trauma, the combat tour presents major life disruption to the Veteran and those in his/her network. Significant others (SOs) in a Veteran's life have had to struggle to adapt to the Veteran's absence over the time of the deployment. Upon return, in addition to potentially coping with symptoms of PTSD, the Veteran must also attempt to reconnect with his/her family members and larger support networks. Members of those social support networks must also contend with the day-to-day changes associated with the Veteran's return and with the Veteran behaving differently than s/he did prior to deployment. Additionally, a recent study suggests that OEF/OIF Veterans show higher rates of treatment dropout, compared to Veterans from other eras (Erbes, Curry, & Leskela, 2009). Taken together with evidence that OEF/OIF Veterans seem to show a worsening of symptoms several months following return from combat (Milliken, Auchterlonie, & Hoge, 2007), Erbes and colleagues (2009) suggested that treatment approaches be targeted to this group to optimize engagement, endorsing therapies that involve SOs as one such approach.

The treatment described in this manuscript was developed specifically for OEF/OIF Veterans struggling with co-occurring PTSD and alcohol misuse. The primary components include cognitive-behavioral coping skills and the involvement of SOs. A rationale for both of these components is presented below, followed by a brief description of this new treatment and then by brief summaries of two cases treated with this approach.

The Importance of Coping Skills in Treating PTSD-AUD

Coping and PTSD

Several studies have investigated the role of coping style in patients' adaptation to trauma (Johnsen, Eid, Laberg, & Thayer, 2002; Sharkansky, Brief, Peirce, Meehan, & Mannix, 2000). Studies of trauma survivors suggest that those who adopt avoidant and emotion-focused coping styles are at greater risk for PTSD (Sutker, Davis, Uddo, & Ditta, 1995; Solomon, Mikulincer, & Avitzur, 1988). Although coping styles or skills *per se* have not been measured as proximal outcomes in PTSD treatment studies, at least one treatment approach for PTSD appears to be effective by targeting patients' coping skills explicitly. In Stress Inoculation Training (SIT), patients are instructed in the development of cognitive and behavioral skills to cope with distress related to PTSD (Litz, Williams, Wang, Bryant, & Engel 2004; Foa, Rothbaum, Riggs, & Murdock, 1991; Meichenbaum, 1985). SIT typically includes relaxation techniques, cognitive restructuring, breathing retraining, and communication skills.

Coping skills and alcohol use disorders

Cognitive-behavioral coping skills treatment (CST) has been developed for alcohol and drug misuse (Monti, Kadden, Rohsenow, Cooney, & Abrams, 2002). Based in social learning theory (Bandura, 1977; Abrams & Niaura, 1987), CST conceptualizes alcohol abuse as a maladaptive coping response to life stress. CST is consistent with the relapse prevention model of alcohol treatment, which seeks to help patients develop a skill set necessary for maintaining abstinence (Marlatt & Gordon, 1985). CST treatments are comprised largely of training patients in new interpersonal and intrapersonal skills to successfully avoid drinking. Sessions focus on skill acquisition. Examples of session topics include coping with triggers to drink, scheduling healthy pleasant events, and effective communication. CST has been well supported as an effective treatment for AUD and other substance use disorders (Morgenstern & Longabaugh, 2000).

Further, the role of coping skills as a predictor of alcohol treatment outcome has been supported (Chung, Langenbucher, Labouvie, Pandina, & Moos, 2001; Finney, Moos, & Humphreys, 1999). A prospective study of alcoholics in treatment found that change in coping skills was predictive of drinking behavior 12 months following treatment (Maisto, Connors, & Zwyiak, 2000). Morgenstern and Longabaugh (2000) reviewed 10 studies of CST to investigate the evidence for improvement in coping skills as a mediator of treatment outcome. Their review revealed a complex web of associations between treatment, coping skills, and outcome. For example, several studies found that CST effectively improved coping skills, and several studies reported that coping skill improvements were associated with enhanced outcomes.

CST is particularly relevant for AUD patients with comorbid PTSD because these patients appear to have worse coping skills than AUD patients without PTSD (Ouimette et al., 1998). Patients with comorbid PTSD and AUD tend to rely on maladaptive coping styles more than do alcohol abusers with other psychiatric disorders, and they tend to show less improvement in this domain than patients with AUD alone following traditional substance abuse treatment (Ouimette, Finney, & Moos, 1998).

The Role of SO Involvement in Helping OEF/OIF Veterans with PTSD-AUD

There is both theoretical and empirical support for significant other (SO) involvement in treatment of co-occurring PTSD and alcohol misuse. Both PTSD and alcohol misuse are independently associated with interpersonal deficits, which provide circumstantial evidence for the need to address relationship functioning in treatment. SO involvement in psychotherapy may generally be considered to serve 2 functions: improvement of individual functioning, and/or relationship improvement (these two goals would likely have mutually beneficial effects). Behavioral Couples Therapy for Alcoholism includes sessions related to both of these goals (O'Farrell & Fals-Stewart, 2006). The current treatment focuses on improving symptoms in the identified patient (the returning Veteran).

Significant others in PTSD treatment

A reciprocal relationship appears to exist with regard to PTSD and social functioning. That is, social support is often necessary to successfully cope with PTSD, but many PTSD symptoms can deleteriously impact interpersonal relationships and thereby diminish social support. For example, PTSD symptoms such as emotional numbing, anger, social avoidance/ withdrawal appear to interfere with emotional intimacy, and result in a decrease in the available social support (Riggs et al., 2003; Mikulincer, Florian & Solomon, 1995). Thus, the patient inadvertently sabotages the chances of receiving support from those in closest proximity and is unlikely to seek support elsewhere due to social avoidance, anhedonia, and trauma-related avoidance.

A meta-analysis of risk factors for PTSD found social support to be the single most important risk factor in the development of PTSD following trauma exposure (Brewin, Andrews, & Valentine, 2000). The effect of inadequate social support was more pronounced for military samples, an important finding given the fact that Veterans with PTSD seem to have comparable levels of social support to well-adjusted Veterans prior to entry into the military, but they suffer a dramatic loss of social support following military service (Keane, Scott, Chavoya, Lamparski, & Fairbank, 1985). This decrease in social support may play a role in the chronicity of PTSD observed among combat Veterans. PTSD is associated with impaired interpersonal functioning, which occurs as a direct result of symptoms such as social withdrawal and anger. Among married Veterans with PTSD, Veterans themselves report impaired relationship adjustment and difficulty with emotional expressiveness (Carroll, Rueger, Foy, & Donahoe 1985; Riggs et al., 1998), and spouses ranked interpersonal problems and anger among the most pressing problems associated with Veterans' PTSD (Biddle, Elliott, Creamer, Forbes, & Devilly, 2002).

The "Legacies of Vietnam" study found that a supportive marital relationship was a protective factor mediating the impact of combat trauma on functioning (Egendorf, Kadushin, Laufer, Rothbart, & Sloan, 1981). Shehan (1987) proposed a model for treatment of combat-related PTSD that highlights the importance of marital communication and social support, underscoring the need for psychoeducation for spouses about PTSD symptoms and treatment approaches as well as the need to increase communication between the patient and spouse. Recent empirical evidence suggests that spouse involvement resulted in substantial treatment gains for a sample of Vietnam Veterans with chronic PTSD (Monson, Schnurr, Stevens, & Guthrie, 2004). That study demonstrated significant reductions in PTSD symptoms following a 15-session cognitive behavioral intervention for Veterans and their spouses. These results are promising, particularly given the chronicity of PTSD in that sample (all had PTSD for more than 20 years).

Significant others in substance abuse treatment

The efficacy of AUD treatment approaches that include SOs has been well-documented. McCrady and colleagues found that a high level of spousal involvement in treatment was associated with reduced dropout and better drinking outcomes (McCrady, Stout, Noel, Abrams, & Nelson, 1991). A review of marital approaches for alcohol misuse found that behavioral couples' therapy for alcohol dependence resulted in higher rates of abstinence, fewer alcohol-related problems, greater relationship satisfaction, and lower divorce rates than individual treatments (O'Farrell & Fals-Stewart, 2003). Strong findings for the Community Reinforcement Approach (CRA), which involves members of the substance abusing patient's social network in providing reinforcement for behaviors incompatible with substance abuse (Meyers, Villanueva, & Smith, 2005), also support the inclusion of SOs in therapy.

Rationale for SO-Enhanced Cognitive-Behavioral Therapy for PTSD-AUD

Alcohol misuse in the presence of PTSD is often conceptualized as self-medication, a maladaptive coping response. Thus, Veterans with co-occurring PTSD-AUD would likely benefit from treatments aimed at building adaptive coping skills for both PTSD symptoms and alcohol-related situations. There is reason to believe a skills-based intervention enhanced by SO involvement would be even more effective than an individual skills-based treatment. PTSD and alcohol misuse are both likely to strain relationships and family functioning. Among returning Veterans, this burden may be exacerbated by Veteran's geographical separation from the family during the period of their deployment. Thus the treatment described herein adapts and tailors two components with demonstrated efficacy to this population of returning Veterans with PTSD-AUD comorbidity.

Components of the SO-enhanced CBT Protocol

In the development of a treatment for PTSD-AUD for OEF/OIF Veterans, the goal was to create a treatment manual based on empirically supported components that could effectively accommodate the diversity of patients presenting with these issues and could be applied flexibly depending on patients' individual needs. This treatment is currently under development in a small open trial and minor modifications to the protocol have been made as a result of clinical experience. For the current phase of treatment development, the therapy has been named Project VALOR (Veterans And Loved Ones Readjusting). The treatment manual includes a series of cognitive-behavioral skills modules that comprise a menu of options for the therapist, some of which are "core" features of the protocol and others of which are "optional" and may be included depending on patients' needs. Modules may be repeated to ensure client mastery. These skills modules are drawn from a number of established treatment manuals for PTSD (Foa, Hembree, & Rothbaum, 2007; Leahy & Holland, 2000; Meichenbaum, 1985; Zayfert & Becker, 2007) and alcohol misuse (Monti et al., 2002; O'Farrell & Fals-Stewart, 2006). A list of the modules is presented in Table 1. The working version of this therapy protocol allows for 20 to 25 sessions of treatment. For each Veteran, the protocol requires the involvement of an SO, defined broadly as a trusted adult with whom the Veteran has daily or nearly daily contact and who would be willing and able to be involved in the Veteran's treatment. Thus that role is not limited to Veterans' spouses/ partners. An important exclusion criterion for SOs is the presence of an active substance use disorder.

SOs are asked to attend approximately 10 sessions. Veterans and SOs are provided with psychoeducation about PTSD, alcohol misuse, the social withdrawal and emotional numbing that are symptomatic of PTSD, and the need for healthy social support. SOs are enlisted in helping the Veteran avoid alcohol use, engage in alternative activities, and practice coping skills for alcohol abuse, consistent with the Veteran's treatment goals. Veterans and SOs are engaged in an ongoing discussion of other forms of avoidance (other than substance use) related to PTSD symptoms, and treatment sessions and extra-session activities are focused on reducing avoidance behavior that interferes with functioning. Veterans and SOs are engaged in problem solving about how the SO might provide needed social support. Communication skills are covered explicitly and are interwoven throughout other treatment modules. SOs often feel some level of frustration or hurt feelings as a result of prior experiences with the Veteran, and the therapist promotes communication around those issues, supporting the Veteran and SO in using constructive communication strategies.

Illustrative Case Examples

Two examples of Veterans who completed treatment with the VALOR protocol are presented here. All names and identifying characteristics have been changed to protect patients' right to confidentiality. Both Veterans were treated as part of an open trial of the treatment that was approved by the Institutional Review Boards of the Memphis Veterans' Affairs Medical Center and The University of Memphis. Both Veterans and their SOs gave informed consent before enrolling in the study. Each Veteran completed a full assessment at baseline (entry into the study), end of treatment, and 1-month follow-up.

Study methods

Project VALOR is an ongoing open trial conducted by the author at a Veterans Affairs Medical Center. Brochures for the project are distributed by clinicians treating Veterans for either PTSD or substance use disorders, who mention Project VALOR in the context of discussing treatment options (and offering Veterans access to the full range of services available at this VAMC). Veterans are encouraged to call the Principal Investigator (PI;

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MEM) to receive more information. At the first in-person meeting, the informed consent process occurs prior to initiating the assessment. During the informed consent process, the PI talks in detail about what is involved in project VALOR, about the associated risks and benefits, and about the availability of alternative treatment options (should the client decline to participate). The PI solicits the participant's questions before asking the participant to sign the consent form. Baseline and follow-up assessment sessions include the Clinician-Administered PTSD Scale (CAPS; Blake et al., 1995), the PTSD Checklist (PCL; Weathers, Litz, Herman, Huska, & Keane, 1993), the Time Line Follow Back for alcohol use (TLFB; Sobell & Sobell, 1996), and the Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, & de la Fuente, 1993). At baseline, the Structured Clinical Interview for DSM-IV (SCID; First, Gibbon, Spitzer, & Williams, 1996) is used to assess substance use disorders and comorbid conditions.

Case 1: Thomas—Thomas was a 27-year old Caucasian male. He had served one combat deployment (6 months) to Iraq as part of OEF/OIF and his index traumatic event was witnessing the death of a buddy in combat. Thomas reported a history of alcohol abuse, both pre-deployment and following deployment. Prior to deployment he had received a driving under the influence charge. Since he returned from his deployment, his drinking had been characterized by episodic binge episodes where he would "lose control" and consume 8–10 drinks on a given occasion. At the time he contacted the author about enrolling in Project VALOR, he reported that he wanted to give up drinking for good, having had a particularly embarrassing binge episode approximately two weeks before his baseline session. At baseline, he averaged 5.2 drinks per week and obtained a score of 18 on the AUDIT. He presented with a moderate level of PTSD symptoms, with a total score on the CAPS of 46, and a score of 59 on the PCL.

Thomas participated with his significant other, Jessica, a 22-year-old nursing student. Thomas and Jessica appeared to have a very strong relationship and Jessica was supportive of Thomas' decision to abstain from alcohol. Although Jessica had experimented with alcohol in adolescence, she had not consumed alcohol in approximately two years.

Thomas was treated by the author and he attended 17 sessions of therapy over the span of five months. Thomas easily developed rapport with the clinician and was engaged in the treatment. Early in treatment he set a goal of abstinence from alcohol and was able to maintain abstinence throughout treatment and through the follow up period. With regard to PTSD symptoms, Thomas reported little in the way of reexperiencing or avoidance symptoms, but did report considerable hyperarousal, with pronounced irritability. He also reported considerable anhedonia and emotional numbing. As such, the optional modules of imaginal exposure and imagery rehearsal training were not employed. Several sessions were focused on Thomas' hyperarousal and numbing symptoms. Although Thomas was committed to a goal of abstinence from alcohol, he benefited from many of the coping skills aimed at helping him maintain abstinence. Thomas benefited from skills exercises focused on reducing hyperarousal and on building interpersonal skills. He had previously found that routine hassles at work would lead to overwhelming anger at co-workers, and he benefited from assertiveness training exercises. Thomas's progress was enhanced by Jessica's involvement in treatment. He had previously had difficulty talking with her about his PTSD symptoms, and felt distant from her as a result. But in joint sessions, Thomas was open with Jessica about his emotions. During sessions focused on shared pleasant events, the couple engaged in brainstorming about possible activities and then making specific plans. These pleasant events played a significant role in reducing Thomas's negative affect, and both Thomas and Jessica reported feeling closer as a result these activities.

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Approximately halfway through treatment, Thomas reported that he was considering reenlisting in the United States Marine Corps. He processed this decision in therapy and over the course of several weeks outside of therapy. We used the problem-solving rubric to approach this as an opportunity to practice his skills. Thomas reported that in his postmilitary life, he longed for the structure and sense of meaning and purpose he had while in the military. At termination, Thomas was feeling considerably better and was resolved to a long-term goal of abstinence. He had developed a repertoire of healthy ways of coping with negative emotions. At end-of-treatment, Thomas obtained scores of 11 on the CAPS, 23 on the PCL and 4 on the AUDIT. He reported no drinking in the past month on the TLFB. At 1month post-treatment, Thomas obtained scores of 25 on the CAPS, 23 on the PCL, and 6 on the AUDIT. He continued to report complete abstinence from alcohol.

Case 2: Joseph—Joseph was a 27 year old African-American male Veteran who was referred to Project VALOR by his case manager following intensive treatment for alcohol misuse. Joseph had been deployed twice as part of OEF/OIF, for a total of 16.5 months and he had returned from his last deployment two and a half years prior to enrolling. He had a history of dependence on both alcohol and marijuana and was in early remission with regard to both. His PTSD symptoms were in the severe range at baseline, and he met criteria for co-occurring major depressive disorder, assessed using the SCID. At baseline, Joseph was separated from his wife and believed that the marriage could not be salvaged, and thus was not inclined to ask his wife to participate as his "significant other." He opted instead to ask his mother, who willingly agreed. Joseph was treated by a master's level clinician who was trained in cognitive-behavioral therapy and in the specific study procedures and was supervised by the author. Supervision included listening to audio recordings of sessions and weekly individual meetings. Joseph competed 25 sessions over the course of six months.

Joseph had moved to a VA sponsored group home shortly before his enrollment in the study. Although he had a strong contingency for abstinence from alcohol use, (i.e., losing his housing if there was evidence of substance use), he reported a goal of living independently and wanted to minimize the risk of relapse upon that transition. He was eager to learn coping skills to prevent alcohol misuse and to reduce his PTSD symptoms. Joseph was also reliable in attending sessions, and he typically completed homework consistently. His PTSD symptoms (particularly reexperiencing) were particularly persistent, and so the therapist implemented a module of imaginal exposure therapy (5 sessions) which resulted in a steady reduction of those symptoms. Joseph's mother was provided with the rationale for exposure therapy as well and was engaged in a discussion about how she could support Joseph during this phase of his treatment. Joseph's mother also helped to problem-solve about completing in vivo exposure exercises and accompanied him on some of his in vivo exercises.

At termination, Joseph had started a new job and had a concrete plan to move into his own apartment. He reported feeling considerably better, and this was true for his depressive symptoms also. He had developed several healthy coping strategies and was committed to long-term abstinence from substances. At his end-of-treatment assessment, Joseph obtained scores of 52 on the CAPS, 33 on the PCL, and 0 on the AUDIT. At one month post-treatment, he had continued to report no drinking on the TLFB, and obtained scores of 40 on the CAPS, 36 on the PCL, and 0 on the AUDIT.

Discussion

This report describes the rationale and early development of a new cognitive-behavioral approach to treating co-occurring posttraumatic stress disorder (PTSD) and alcohol use disorders (AUD) among Veterans of the wars in Iraq and Afghanistan. The early work in developing the treatment suggests that this approach holds promise as a successful

intervention. The treatment combines frequently used cognitive-behavioral components, weaving together foci on alcohol misuse and PTSD symptoms. Sessions that involve a significant other (SO) are distributed throughout treatment.

For both of the cases discussed, the participants made drastic reductions in their alcohol use at the start of treatment or shortly before entering the study, but both still reported that they found the material focused on alcohol misuse helpful. Both demonstrated sustained abstinence from alcohol, suggesting that perhaps the skills were helpful for establishing new habits. Both Veterans also demonstrated substantial decreases in PTSD symptoms.

Clinicians working in settings where they might encounter recently returned combat Veterans are advised that there are several important factors to consider in working with this population. First, the adjustment-related issues are myriad. Deployment necessarily involves separation from one's typical environment for periods of several months at a time, a disruption that would likely be stressful even if the deployment did not also involve living in a combat zone. Life in an OEF/OIF combat zone is characterized by numerous additional stressors including oppressive heat, limited contact with family, lack of privacy, and a high potential for exposure to traumatic stressors such as small arms-fire, rocket attacks, and improvised explosive devices. Further, in combat, troops must be prepared to behave in ways that would be deplorable under any other conditions, such as inflicting harm on others and killing enemy combatants when necessary. All of these factors may contribute to PTSD symptoms and increased drinking. These are also issues that many Veterans have difficulty discussing with other people in their lives, particularly loved ones who are not themselves part of the military.

This work reflects very preliminary findings about a new approach to treating co-occurring PTSD and alcohol misuse. Further development and empirical evaluation of the protocol in OEF/OIF Veterans is required. Future work on the VALOR protocol will need to demonstrate that this time-intensive treatment offers a benefit beyond what may be expected in an individual treatment protocol that does not require the involvement of significant others. Additional work will be needed to understand the relative impact of significant other involvement and cognitive behavioral skills in terms of the mechanisms of change.

Acknowledgments

This work was supported by the National Institute on Alcohol Abuse and Alcoholism (AA016120 to MEM) and by the Department of Veterans' Affairs Office of Research and Development. The author wishes to thank Claudia M. McCausland for her contributions to this study.

Biography

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References

Abrams, DB.; Niaura, RS. Social learning theory of alcohol use and abuse. In: Blane, H.; Leonard, K., editors. Psychological theories of drinking and alcoholism. New York: Guilford Press; 1987. p. 131-180.

Bandura, A. Social Learning Theory. Engle wood Cliffs, NJ: Prentice-Hall; 1977.

- Blake DD, Weathers FW, Nagy LM, Kaloupek DG, Gusman FD, Charney DS, Keane TM. The development of a clinician-administered PTSD scale. Journal of Traumatic Stress. 1995; 8:75–90. [PubMed: 7712061]
- Biddle D, Elliott P, Creamer M, Forbes D, Devilly G. Self-reported problems: A comparison between PTSD-diagnosed Veterans, their spouses, and clinicians. Behaviour Research and Therapy. 2002; 40(7):853–865. [PubMed: 12074378]
- Brady K, Dansky B, Back S, Foa E, Carroll K. Exposure therapy in the treatment of PTSD among cocaine-dependent individuals: Preliminary findings. Journal of Substance Abuse Treatment. 2001; 21(1):47–54. [PubMed: 11516926]
- Brewin C, Andrews B, Valentine J. Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. Journal of Consulting and Clinical Psychology. 2000; 68(5):748–766. [PubMed: 11068961]
- Carroll EM, Rueger DB, Foy DW, Donahoe CP. Vietnam combat Veterans with posttraumatic stress disorder: Analysis of marital and cohabiting adjustment. Journal of Abnormal Psychology. 1985; 94:329–337. Retrieved from http://www.apa.org/pubs/journals/abn/. [PubMed: 4031230]
- Chung T, Langenbucher J, Labouvie E, Pandina R, Moos R. Changes in alcoholic patients' coping responses predict 12-month treatment outcomes. Journal of Consulting and Clinical Psychology. 2001; 69(1):92–100. [PubMed: 11302282]
- Egendorf, A.; Kadushin, C.; Laufer, RS.; Rothbart, G.; Sloan, L. Legacies of Vietnam: Comparative adjustment of Veterans and their peers. Washington, DC: U.S. Government Printing Office; 1981.
- Erbes CR, Curry KT, Leskela J. Treatment presentation and adherence of Iraq/Afghanistan era Veterans in outpatient care for posttraumatic stress disorder. Psychiatric Services. 2009; 6:175– 183.
- Finney J, Moos R, Humphreys K. A comparative evaluation of substance abuse treatment: II. Linking proximal outcomes of 12-step and cognitive-behavioral treatment to substance use outcomes. Alcoholism: Clinical and Experimental Research. 1999; 23(3):537–544.
- First, MB.; Gibbon, M.; Spitzer, RL.; Williams, JBW. Structured Clinical Interview for DSM-IV Axis I Disorders. Washington, DC: American Psychiatric Press; 1996.
- Foa, EB.; Hembree, EA.; Rothbaum, BO. Prolonged Exposure Therapy for PTSD: Emotional Processing of Traumatic Experiences. New York: Oxford University Press; 2007.
- Foa E, Rothbaum B, Riggs D, Murdock T. Treatment of posttraumatic stress disorder in rape victims: A comparison between cognitive-behavioral procedures and counseling. Journal of Consulting and Clinical Psychology. 1991; 59(5):715–723. [PubMed: 1955605]
- Johnsen B, Eid J, Laberg J, Thayer J. The effect of sensitization and coping style on post-traumatic stress symptoms and quality of life: Two longitudinal studies. Scandinavian Journal of Psychology. 2002; 43(2):181–188. [PubMed: 12004957]
- Keane T, Scott W, Chavoya G, Lamparski D, Fairbank J. Social support in Vietnam Veterans with posttraumatic stress disorder: A comparative analysis. Journal of Consulting and Clinical Psychology. 1985; 53(1):95–102. [PubMed: 3980835]
- Leahy, RL.; Holland, SJ. Treatment plans and interventions for depression and anxiety disorders. New York: Guilford Press; 2000.
- Litz B, Williams L, Wang J, Bryant R, Engel C. A therapist-assisted internet self-help program for traumatic stress. Professional Psychology: Research and Practice. 2004; 35(6):628–634.
- Maisto S, Connors G, Zywiak W. Alcohol treatment changes in coping skills, self-efficacy, and levels of alcohol use and related problems 1 year following treatment initiation. Psychology of Addictive Behaviors. 2000; 14(3):257–266. [PubMed: 10998951]
- Marlatt, GA.; Gordon, JR. Relapse prevention: Maintenance strategies in the treatment of addictive behaviors. New York: Guilford Press; 1985.
- McCrady B, Stout R, Noel N, Abrams D. Effectiveness of three types of spouse-involved behavioral alcoholism treatment. British Journal of Addiction. 1991; 86(11):1415–1424. [PubMed: 1777736]
- Meichenbaum, D. Stress inoculation training. New York: Pergamon Press; 1985.
- Meyers RJ, Villanueva M, Smith JE. The community reinforcement approach: History and new directions. Journal of Cognitive Psychotherapy: An International Quarterly. 2005; 19:247–260.

- Mikulincer M, Florian V, Solomon Z. Marital intimacy, family support, and secondary traumatization: A study of wives of Veterans with combat stress reaction. Anxiety, Stress & Coping: An International Journal. 1995; 8(3):203–213.
- Milliken CS, Auchterlonie JL, Hoge CW. Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. Journal of the American Medical Association. 2007; 298:2141–2148. [PubMed: 18000197]
- Monson C, Schnurr P, Stevens S, Guthrie K. Cognitive-behavioral couple's treatment for posttraumatic stress disorder: Initial findings. Journal of Traumatic Stress. 2004; 17(4):341–344. [PubMed: 15462542]
- Monti, P.; Kadden, R.; Rohsenow, D.; Cooney, N.; Abrams, D. Treating alcohol dependence: A coping skills training guide. 2nd ed.. New York: Guilford Press; 2002.
- Morgenstern J, Longabaugh R. Cognitive-behavioral treatment for alcohol dependence: A review of evidence for its hypothesized mechanisms of action. Addiction. 2000; 95(10):1475–1490. [PubMed: 11070524]
- Najavits, L. Seeking safety: A treatment manual for PTSD and substance abuse. New York: Guilford Press; 2002.
- Norman SB, Wilkins KC, Tapert SF, Lang AJ, Najavits LM. A pilot study of seeking safety therapy with OEF/OIF Veterans. Journal of Psychoactive Drugs. 2010; 42:83–87. [PubMed: 20464809]
- O'Farrell T, Fals-Stewart W. Alcohol abuse. Journal of Marital and Family Therapy. 2003; 29(1):121–146. [PubMed: 12616803]
- O'Farrell, T.; Fals-Stewart, W. Behavioral couples therapy for alcoholism and drug abuse. New York: Guilford Press; 2006.
- Ouimette P, Ahrens C, Moos R, Finney J. During treatment changes in substance abuse patients with posttraumatic stress disorder: The influence of specific interventions and program environments. Journal of Substance Abuse Treatment. 1998; 15(6):555–564. [PubMed: 9845869]
- Ouimette P, Finney J, Moos R. Two year posttreatment functioning and coping of substance use patients with posttraumatic stress disorder. Psychology of Addictive Behaviors. 1999; 13:105–114.
- Riggs D, Byrne C, Weathers F, Litz B. The quality of the intimate relationships of male Vietnam Veterans: Problems associated with posttraumatic stress disorder. Journal of Traumatic Stress. 1998; 11(1):87–101. [PubMed: 9479678]
- Riggs DS, Rukstalis M, Volpicelli JR, Kalmanson D, Foa EB. Demographic and social adjustment characteristics of patients with comorbid posttraumatic stress disorder and alcohol dependence: potential pitfalls to PTSD treatment. Addictive Behaviors. 2003; 28:1717–1730. [PubMed: 14656555]
- Saunders J, Aasland O, Babor T, de la Fuente J. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption: II. Addiction. 1993; 88(6):791–804. [PubMed: 8329970]
- Sharkansky E, Brief D, Peirce J, Meehan J, Mannix L. Substance abuse patients with posttraumatic stress disorder (PTSD): Identifying specific triggers of substance use and their associations with PTSD symptoms. Psychology of Addictive Behaviors. 1999; 13(2):89–97.
- Shehan C. Spouse support and Vietnam Veterans' adjustment to post-traumatic stress disorder. Family Relations. 1987; 36(1):55–60.
- Sobell, LC.; Sobell, MB. Timeline Followback user's guide: A calendar method for assessing alcohol and drug use. Toronto, Canada: Addiction Research Foundation; 1996.
- Solomon Z, Mikulincer M, Avitzur E. Coping, locus of control, social support, and combat-related posttraumatic stress disorder: A prospective study. Journal of Personality and Social Psychology. 1988; 55(2):279–285. [PubMed: 3171908]
- Sutker P, Davis J, Uddo M, Ditta S. War zone stress, personal resources, and PTSD in Persian Gulf War returnees. Journal of Abnormal Psychology. 1995; 104(3):444–452. [PubMed: 7673568]
- Triffleman E, Carroll K, Kellogg S. Substance dependence posttraumatic stress disorder therapy: An integrated cognitive-behavioral approach. Journal of Substance Abuse Treatment. 1999; 17(1–2): 3–14. [PubMed: 10435248]

Weathers, FW.; Litz, BT.; Herman, DS.; Huska, JA.; Keane, TM. The PTSD Checklist (PCL): Reliability, validity, and diagnostic utility; Paper presented at the annual meeting of the International Society for Traumatic Stress Studies; San Antonio, TX. 1993 Oct.

Zayfert, C.; Becker, CB. Cognitive-behavioral therapy for PTSD: A case formulation approach. New York: Guilford Press; 2007.

Recommendations for Practitioners

- Practitioners are encouraged to solicit patients' permission to invite significant others to be involved in psychotherapy for PTSD-AUD.
- Although logistically difficult, clinicians and administrators are advised to consider offering individual therapy (ideally enhanced by SO involvement) where possible, as many PTSD-AUD patients refuse to engage in group therapy.
- Clinicians are advised to target PTSD symptoms and alcohol misuse jointly rather than sequentially, and to use an integrated skills-based treatment approach.
- Significant other involvement may be helpful for developing appropriate communication skills, helping the Veteran communicate with loved ones about treatment goals, and implementing behavioral changes.

Table 1

List of possible session topics.

| Core vs. Optional | Торіс | Individual vs. Dyadic session | Case Examples |
|----------------------|---|-------------------------------------|---------------|
| Core | Orientation to treatment, cognitive-behavioral model | Individual | T, J |
| Core | Psychoeducation about PTSD and moderate drinking, "Understanding my drinking" | Dyad | T, J |
| Core | Functional analysis of PTSD symptoms: Understanding triggers | Individual | T, J |
| Core | Relaxation strategies ^a | Individual | T, J |
| Core | Problem Solving I a, b | Individual | T, J |
| Optional | Problem Solving II <i>a</i> , <i>b</i> , <i>c</i> | Dyad | |
| Core | Activation: Pleasant events scheduling/in vivo exposure b , c | Individual | T, J |
| Core | Activation: Pleasant events scheduling/in vivo exposure | Dyad | T, J |
| Core | Anger management I b | Individual | T, J |
| Optional | Anger management II | Dyad | Т |
| Core | Assertiveness/communication b, c | Dyad | T, J |
| Core | Cognitive restructuring <i>b</i> , <i>d</i> | Individual | T, J |
| Optional | "Catch your partner being good" b | Dyad | Т |
| Optional | Specific symptom-focused work if necessary, e.g., Imagery Rehearsal Therapy or Prolonged Exposure Therapy | Individual | J |
| Core | Relapse prevention: Identifying high risk situations b | Individual | T, J |
| Optional | Relapse prevention: Seemingly unimportant decisions b | Individual | |
| Core | Review of relapse prevention strategies | Dyad | T, J |
| Core | Building social support networks b | Individual | T, J |
| Core | Self-Care, making healthy decisions | Individual | T, J |
| Core | End of treatment: Reviewing progress, planning for the future | Individual | Т, Ј |

Note: Any of these sessions may be repeated to ensure adequate coverage. Not all sessions will be required for all patients. Additionally, any session designated as "individual" could also be adapted for SO involvement, per the client's needs.

^aAdapted from Meichenbaum (1985) Stress Inoculation Training manual;

 $^b\mathrm{Adapted}$ from Monti et al. (2002) manual on coping skills for alcohol dependence;

^CAdapted from O'Farrell & Fals-Stewart (2006) Behavioral Couples Therapy for Alcoholism manual;

 $^d\mathrm{Adapted}$ from Zayfert & Becker (2007) Cognitive Behavioral Therapy for PTSD manual.