Effective Treatments for Substance Use Disorders in Racial, Ethnic, and Sexual Minorities: A Brief Review

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Introduction

Minorities experience persistent disparities in behavioral health care. Compared to White counterparts, racial and ethnic minorities have less access to behavioral health services and contend with lower quality of care.[1] Sexual minorities also experience behavioral health care disparities compared to heterosexuals.[2] The causes of behavioral health care disparities are many and important to address.[3] One critical strategy for reduction of disparity is ensuring the quality of behavioral health services provided to minorities.[1] To that end, examining the effectiveness of behavioral health interventions in diverse minority populations has become an important area of focus, and this has been particularly true in the substance use disorder (SUD) treatment domain. The purpose of this research brief is to provide a brief overview of the literature on effective outpatient SUD treatments for racial, ethnic, and sexual minorities.

Defining effective treatments

Over the past two decades, there has been increasing emphasis on the need to promote treatments with good evidence for effectiveness, termed *empirically supported treatments* (ESTs) or *evidence-based practices* (EBPs).[4] EST is an older term that emphasizes strict adherence to manualized treatment, whereas EBP, as defined by the American Psychological Association, was intended to represent "the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences,"[5] in parallel with a definition put forth by the Institute of Medicine.[6]

Acceptable empirical support or evidence is generally expected to take the form of a randomized controlled trial (RCT) or research study of similar experimental rigor. Accordingly, Washington State has defined an EBP as "a program or practice that has been tested in heterogeneous or intended populations with multiple randomized, or statistically controlled evaluations, or both; or one large multiple site randomized, or statistically controlled evaluation, or both, where the weight of the evidence from a systemic review demonstrates sustained improvements in at least one outcome… also… a program or practice that can be implemented with a set of procedures to allow successful replication in Washington and, when possible, is determined to be cost-beneficial."[7] A program or practice with evidence that falls short of the high bar for an EBP may be designated as a *research-based practice* (RBP), defined in Washington as "a program or practice that has been tested with a single randomized, or statistically controlled evaluation, or both, demonstrating sustained desirable outcomes; or where the weight of the evidence from a systemic review supports sustained outcomes... but does not meet the full criteria for evidence-based."[7] Falling short of that definition, a *promising practice* is "a program or practice that, based on statistical analyses or a well-established theory of change, shows potential for meeting the evidence-based or research-based criteria, which may include the use of a program that is evidence-based for [other] outcomes."[7]

Taking culture into consideration

Most EBPs have not been designed to address important dimensions of diversity. Racial, ethnic, sexual, and gender differences are largely glossed over, yet these are differences in culture that are highly salient in individuals' lives.[8] While some treatment developers argue that EBPs should be equally effective across cultural groups because behavior change principles are theoretically universal, others argue that cultural tailoring is critical to treating culturally diverse populations.[9] These two extremes form a cultural sensitivity continuum. The former would stress development and testing of one-size-fits-all treatments across cultural groups while the latter would reject any treatment not developed specifically for a particular cultural group from

the ground up. In practice, treatments for racial, ethnic, and sexual minorities generally fall somewhere along this continuum. A relatively invariant treatment that performs equally well in minority and majority cultures might be termed *culturally competent*. Treatment programs that incorporate cultural characteristics—e.g., values, norms, beliefs, experiences, and behavioral patterns—are termed *culturally informed*.[10]

Culturally Competent Treatments

In diverse, heterogeneous, or resource-limited settings, it may not be practical for treatment providers to deliver anything but one-size-fits all interventions. In such cases, it is important to choose interventions that have been tested in diverse populations in which minorities were well-represented. Ideally, treatment interventions will have been tested in large, diverse samples with sufficient minority representation to conduct thorough subgroup analyses to see if favorable treatment effects were robust across various minority groups. Unfortunately, relatively few studies have examined race/ethnicity/sexual minority status as moderators of treatment effects.[9,11] In lieu of directly examining the effectiveness of an intervention in minority populations, ensuring representation of minorities that is proportionate to what exists in diverse communities helps to ensure that favorable effects are not owing to White participants alone. Thus, it is informative to consider what proportion of the samples used to evaluate any given treatment consisted of minorities.

Unfortunately, racial, ethnic, and sexual minority populations have generally been grossly under-represented in the RCTs that have been conducted to evaluate treatment effectiveness. Most treatment programs for behavioral health disorders, including SUDs, have been developed and evaluated in predominantly White, heterosexual samples.[12,13] In evaluating which treatments meet criteria to be considered an EBP in Washington, the Washington State Institute for Public Policy (WSIPP), in accordance with state law, considers whether a treatment has been tested in a heterogeneous population and operationalizes heterogeneity in two ways. To meet the heterogeneity criterion, the body of research on a particular treatment must meet one of the following two criteria. 1) The proportion of racial/ethnic minority research participants must be greater than or equal to the proportion of racial/ethnic minorities in Washington. For interventions for children aged 0-17 years, currently this means the weighted average of participants in outcome evaluations being no more than 68% White. [14] For interventions for adults aged 18 years or older, currently this means the weighted average of participants in outcome evaluations being no more than 76% White.[15] 2) At least one outcome evaluation has been conducted on the appropriate age group in Washington (children or adults) with subgroup analysis demonstrating favorable outcomes for racial/ethnic minorities (p-value < 0.20).[14,15] WSIPP indicates the proportion of racial/ethnic minority research participants for each treatment it evaluates, whenever possible. WSIPP does not indicate the proportion of sexual minority research participants for evaluated treatments, [14,15] as such information is rarely provided—or even assessed—in original research studies[16].

Culturally competent treatments for racial/ethnic minority youth

Relatively few treatment interventions have been tested with adequate samples of racial or ethnic minority youth. It should be noted that none of the treatments for youth SUDs—for any population—evaluated by WSIPP, as of its most recent report, was classified as an EBP.[14] While seven treatments were classified as RBPs, only five were tested in samples that were less than 68% White. Those five were the Adolescent Community Reinforcement Approach, Functional Family Therapy, Multidimensional Family Therapy, Multisystemic Therapy, and the Teen Marijuana Check-Up.[14] Using somewhat different operationalizations of the definitions set forth in Washington, separate evaluation conducted by the University of Washington Alcohol and Drug Abuse Institute (ADAI) also identified Motivational Enhancement Therapy/Cognitive Behavioral Therapy as an EBP for youth.[17]

Adolescent Community Reinforcement Approach (ACRA).[18] ACRA is a behavioral treatment for youth and young adults 12 to 24 years old with SUDs that seeks to increase family, social, and educational/vocational reinforcers to support recovery. ACRA includes guidelines for three types of sessions: individuals alone, parents/caregivers alone, and individuals and parents/caregivers together. Clinicians choose from a variety of ACRA procedures to address the individual's needs in multiple life areas, e.g., problem-solving skills and communication skills. Every session ends with a mutually-agreed upon homework assignment to practice skills learned during sessions. Often homework assignments include participation in pro-social activities. Likewise, each session begins with a review of the homework assignment from the previous session. It has been tested with 59% racial/ethnic minority participants.[14]

Functional Family Therapy (FFT).[19] FFT is "a multisystemic approach that integrates and conceptually links behavioral and cognitive intervention strategies to the ecological formulation of the family disturbance. Problems such as substance use or

running away are conceptualized as deriving from maladaptive family interaction patterns as well as limited coping and problem-solving skills. The primary focus of sessions is on family interaction and behavior change."[20] The first phase of the FFT intervention focuses on engaging families in treatment and enhancing motivation for change. In the second phase of treatment, the focus shifts to effecting behavioral change within the family.[21] It has been tested with 74% racial/ethnic minority participants.[14]

Motivational Enhancement Therapy/Cognitive Behavioral Therapy (MET/CBT).[22,23] MET/CBT is a 5-12 session treatment composed of 2 individual sessions of MET and 3-10 weekly group sessions of CBT. The MET sessions focus on factors that motivate participants who abuse substances to change, while in the CBT sessions, participants learn skills to cope with problems and meet needs in ways that do not involve turning to marijuana or alcohol, including how to refuse marijuana; how to increase the adolescent's social support network and non-drug activities; and how to avoid and cope with relapses. In the studies reviewed by ADAI, the proportion of racial/ethnic minorities included in the samples ranged from 8% to 51%.[17] Studies of CBT without MET also show favorable outcomes for substance abuse with proportions of racial/ethnic minorities ranging from 0% to 100%.[17] Benuto and O'Donohue[24] reviewed the literature on empirically supported treatments for ethnic minorities and noted that there is evidence that standard, untailored CBT produces beneficial outcomes for Hispanics/Latinos. ADAI has determined that MET/CBT represent a set of EBPs given favorable outcomes with minority samples.[17]

Multidimensional Family Therapy (MDFT).[25] MDFT is an outpatient, family-based, manual-driven drug abuse treatment for teens. Delivered across a flexible series of 12 to 16 weekly or twice weekly 60- to 90-minute sessions, MDFT consists of assessment and treatment modules that target four areas of social interaction: (1) the youth's interpersonal functioning with parents and peers, (2) the parents' parenting practices and level of adult functioning independent of their parenting role, (3) parent-adolescent interactions in therapy sessions, and (4) communication between family members and key social systems (e.g., school, child welfare, mental health, juvenile justice). The treatment format includes both individual and family sessions. Interventions are designed to target processes known to produce and/or maintain drug taking and related problem behaviors. It has been tested with 87% racial/ethnic minority participants.[14]

Multisystemic Therapy (MST).[26] MST is an intensive, family-based treatment approach for improving the antisocial behavior of serious juvenile offenders, including reducing substance abuse. The MST model is based on the belief that youth behavior is determined by multiple factors and that each of these factors can be targeted to promote positive behavioral change. MST treatment is conducted in natural settings (for example, in the youth's home, school, or community) under the premise that youths and their families must learn how to function more effectively within their natural environment if they are to sustain improvements after treatment concludes. Specific systems to target for treatment are determined by each youth's situation; however, a common focus of MST is to teach parents how to be more effective at managing their child's activities and develop positive support systems. It has been tested with 65% racial/ethnic minority participants.[14]

Teen Marijuana Check-Up (TMCU).[27] Developed as an alternative approach for adolescents to address concerns about marijuana use outside of formal treatment, the TMCU includes specific advertisement and recruitment strategies as well as a motivational enhancement therapy (MET) intervention designed for delivery in schools. Aimed at a voluntary, non-treatment-seeking high school population, the program is advertised as an opportunity to "take stock" of marijuana use and is intended to facilitate a candid, in-depth evaluation of an individual's use. The brevity of the MET and its low barriers to access encourage participation with minimal effort. In MET, ambivalence about marijuana use is viewed as normal. Adolescents are not labeled as having a problem with marijuana and are treated as experts and decision makers regarding their own marijuana use. Thus, it is meant to appeal to those in earlier stages of change. It has been tested with 35% racial/ethnic minority participants.[14]

Culturally competent treatments for racial/ethnic minority adults

Current US Census data as of July 1, 2018, lists the population of Washington State as 68.7% White alone, not Hispanic or Latino; therefore, currently, 31.3% percent of the population is estimated to be racial/ethnic minority.[28] As of their most recent report on the topic published in September 2016, WSIPP has evaluated twenty-seven treatments for adults with SUDs, not including medication-based treatments (e.g., buprenorphine for opioid dependence).[15] Of these, two were classified as EBPs: Brief Marijuana Dependence Counseling and Contingency Management. Both were tested in samples that were more diverse than Washington State (i.e., > 31.3% racial/ethnic minority). An additional fifteen were categorized as RBPs. Of these, only ten were tested in samples with greater racial/ethnic diversity than Washington: Brief Cognitive Behavioral Intervention, Cognitive-Behavioral Coping Skills Therapy, Community Reinforcement and Family Training, Community Reinforcement Approach, Dialectical Behavior Therapy, Family Behavior Therapy, Holistic Harm Reduction Program, Individual Drug Counseling Approach,

the Matrix Model Intensive Outpatient Treatment, Motivational Interviewing, Peer Support, Relapse Prevention Therapy, Seeking Safety, and Twelve-Step Facilitation.[15] In addition, a recent review noted that research studies have demonstrated empirical support for mindfulness-based relapse prevention among women of color, and drink refusal skills-training among African American clients.[29]

Brief Marijuana Dependence Counseling (BMDC).[30] BMDC is a standalone treatment, usually delivered in an individual format that combines two sessions of MET, seven sessions of CBT, and case management. Sessions focus on enhancing motivational enhancement; readiness for change; and cognitive, behavioral, and emotional skill-building. Clients are assisted in gaining access to additional support services. BMDC has been tested with 52% racial/ethnic minority participants.[15]

Cognitive-Behavioral Coping Skills Therapy (CBCST).[31] CBCST is a manualized, standalone, individual or group treatment for SUDs that teaches clients to identify and cope with high-risk situations that could lead to relapse. Clients engage in problem solving, role playing, and homework practice. The intervention is often provided in an individual therapy format but can be conducted in groups as well. CBCST has been tested with 36% racial/ethnic minority participants.[15]

Community Reinforcement and Family Training (CRAFT).[32,33] CRAFT is a program for concerned significant others (CSOs, i.e., family and friends) of those with SUDs. In 12 to 14 individual sessions lasting up to 6 months, CSOs are taught effective strategies for helping their loved one (LO) to change, to enroll in treatment, and to feel better themselves. Specific intervention components include: (1) raising awareness of negative consequences of LO's drug use and possible personal benefits of treatment; (2) learning strategies to prevent dangerous situations; (3) learning to reinforce the LO's non-using behaviors and to extinguish drug use; (4) training to improve communication and problem-solving skills; (5) planning activities to replace and strategies to interfere with the LO's actual/potential drug use; (6) preparing to initiate treatment when the LO appears ready, and (7) supporting the LO once treatment has begun. CRAFT has also been tested with 36% racial/ethnic minority participants.[15]

Contingency Management (CM).[34,35] CM is behavioral technique that seeks to encourage positive behavior change by providing desirable consequences when clients meet treatment goals and by withholding reinforcement or providing punishment when patients engage in an undesired behavior (e.g., substance use). For example, consequences for abstinence may include positive reinforcement in the form of vouchers exchangeable for money or prizes while consequences for drug use may include non-reinforcement by withholding vouchers or punishment by making an unfavorable report to a parole officer. Reinforcing or punishing consequences may be contingent on objective evidence of drug use (e.g., urine screens) or on another important behavior, such as compliance with a medication regimen or regular clinic attendance. CM procedures are frequently implemented with written contracts that detail the desired behavior change, duration of intervention, frequency of monitoring, and potential consequences of the person's success or failure in making the agreed upon behavior changes. CM has been tested in higher cost and lower cost formats for a variety of substances with racial/ethnic minority representation ranging from 47-57%.[32]

Drink-Refusal Skills Training (DRST).[36] DRST is one of the modules in combined behavioral intervention tested in the COMBINE study. The DRST module incorporates several components, including a rationale that people commonly resume drinking in response to social pressure, an assessment of the client's perceived social pressures, an assessment of the client's typical coping responses in response to social pressures, and behavioral rehearsal of positive coping behaviors that clients can be use in the face of social pressures. Subgroup analysis found that this module was particularly effective with African American clients.[36]

Holistic Harm Reduction Program (HHRP).[37] HHRP is a manualized group treatment for persons with SUDs who are also HIV positive. Primary goals of harm reduction, health promotion, and quality of life improvement are achieved through education and skills training related to choices that reduce harm to self and others. HHRP also addresses medical, emotional, social, and spiritual barriers to harm reduction. The treatment is generally provided as an add-on to methadone treatment and standard counseling in 12 sessions over three to six months. HHRP has been tested with 42% racial/ethnic minority participants.[15]

Individual Drug Counseling Approach (IDCA).[38] IDCA is a manualized treatment that can be provided as a standalone or add-on treatment. Generally delivered in 36 individual sessions over six months with booster sessions as needed, IDCA has been evaluated in a mixed individual and group counseling format for cocaine dependence. The model follows a 12-step philosophy that seeks to address the client's physical, emotional, spiritual, and interpersonal needs. IDCA has been tested with 44% racial/ethnic minority participants.[15]

Matrix Model Intensive Outpatient Treatment (MMIOP).[39] MMIOP is a manualized, standalone intensive outpatient program for individuals with stimulant use disorders. Standard MMIOP treatment generally spans 16 weeks and consists of group CBT (36 sessions), individual counseling (4 sessions), family education groups (12 sessions), group social support (4 sessions) and urine and weekly breath alcohol testing. Weekly (at least) attendance at 12-step meetings is also encouraged. Covered topics include relapse prevention, drug education, and social support delivered in a non-confrontational manner. One of the relatively unique features of MMIOP is the deliberate ordering, i.e., "staging," of intervention components, with those requiring fewer/less demanding cognitive abilities begun earlier while those requiring more/greater cognitive abilities come later in a staged approach to compensate for the impairing effects of stimulants on cognitive function. MMIOP has been evaluated with 52% racial/ethnic minority participants.[15]

Mindfulness-Based Relapse Prevention (MBRP).[40] MBRP is a manualized treatment designed to help clients identify high-risk situations and their reactions to common triggers, recognize and cope skillfully with craving through acceptance, awareness, and non-judgment of experience, integrate mindfulness practices into daily life and high-risk situations, and identify the role of thoughts in the relapse process. MBRP emphasizes clients' individual experiences in building coping skills. Clients are also taught general skills for problem-solving, goal-setting, drink refusal self-efficacy, social support, and maintaining a balanced lifestyle. Subgroup analysis found that women of color fared better in response to MBRP compared to traditional relapse prevention therapy.

Motivational Interviewing (MI)[41]**/Motivational Enhancement Therapy (MET).**[42] Typically delivered in 1-2 individual sessions, MI is a directive, client-centered brief intervention to foster behavior change by helping clients explore and resolve ambivalence. MI has been adapted for a variety of SUDs in a variety of ways been evaluated with 49% racial/ethnic minority participants.[15] Within the overall clinical style of MI, MET emphasizes the provision of a personal assessment feedback report. A typical MET format involves three sessions in which the first session focuses on reviewing an individualized Personal Feedback Report that summarizes objective and personal information on the client's substance use, and the subsequent two sessions focus on discussing plans for changing substance use. Research suggests that MET might aid retention in SUD treatment among African American women.[42]

Peer Support (PS).[43] PS is a general term used to describe interventions provided by a peer specialist to individuals with substance abuse disorders. For example, one PS program employed a peer specialist to deliver a brief motivational intervention to individuals screened and identified as using heroin and cocaine at walk-in general health clinics. PS is arguably more of an intervention *delivery method* than an intervention per se. WSIPP identified one favorable RCT evaluating the method, and that study included 86% racial/ethnic minority participants.

Relapse Prevention Therapy (RPT).[44] RPT is typically an add-on treatment delivered once or twice weekly in an individual or group format lasting one to several months. Clients are taught to anticipate problems and identify strategies to avoid using alcohol and drugs following a cognitive-behavioral approach. RPT has been tested with 77% racial/ethnic minority participants.[15]

Seeking Safety (SS).[45] SS is a present-focused counseling model that directly addresses both trauma and addiction, without requiring clients to delve into the trauma narrative. Clients do not have to meet formal criteria for PTSD or substance abuse—it is often used as a general model to teach coping skills. SS offers 25 topics that designed to be presented in any order as time allows, in group or individual format, for any length of treatment, at any level of care (e.g., outpatient, inpatient, residential), for any type of trauma, and applicable to any type of substance. SS has been evaluated with 55% racial/ethnic minority participants.

Twelve-Step Facilitation (TSF).[46],[47] TSF is a stand-alone and manual-driven treatment, typically delivered in 12 to 15 weekly individual sessions, that encourages clients' active participation in twelve-step programs such as Alcoholics Anonymous or Narcotics Anonymous. It has been tested with 48% racial/ethnic minority participants.

Culturally competent treatments for sexual minorities

Compared to the situation with racial and ethnic minorities, even fewer treatment interventions have been tested with adequate samples of sexual minorities.[11] Large national studies of SUD treatment retention and outcomes conducted over the last few decades, such as Drug Abuse Reporting Program (DARP), Treatment Outcome Prospective Study (TOPS), and Drug Abuse Treatment Outcome Study (DATOS), have not examined sexual orientation as a demographic factor.[48] Furthermore, there have been virtually no studies comparing how lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals in traditional programs without specialized components fare in comparison to those in programs with specialized components.[48] Thus, little is

known about the most effective way to treat sexual minorities with SUDs. This situation exists despite evidence that LGBTQ individuals have high rates of substance use. [49] A 2012 study in Washington State purported to be the first population-based study SUD treatment outcomes with a focus on sexual minority status.[50] They found that sexual minorities were more likely to have co-occurring disorders (COD) but that sexual minority status was not associated with worse treatment outcomes after controlling for COD. Thus, their work supports a conclusion that standard treatments in general use in Washington state treatment agencies in 2012 were just as effective for sexual minorities as for non-minorities. The researchers did not describe which treatments were used by the participants in their study.

Matrix Model (MM) and/or Contingency Management (CM). The MM intensive outpatient treatment and/or CM have been tested among gay men and other men who have sex with men (MSM) who use methamphetamine (MA), sometimes as comparison conditions in the context of evaluations of treatments developed specifically for these populations (see Culturally informed treatments for sexual minorities, below). While findings have been somewhat mixed, both interventions appear to be effective with gay men and other MSM.[51,52]

Shoptaw et al.[51] compared 16 weeks of MM+CM to the same length of MM alone and CM alone for treatment-seeking gay and bisexual men who were dependent on MA (N = 162, 80% White/non-minority). The investigators found that participants in CM conditions were retained at a higher rate than those in MM alone. Across all conditions, participants reduced their drug use from baseline through 16-weeks (48.4% urine samples positive for metabolite at baseline, 16.5% positive at 16 weeks) and drug use, psychiatric severity, and sexual risk from baseline through follow-up. Compared to MM alone, the CM conditions evidenced significantly longer periods with MA-free urine tests; however, the difference was not observed at follow-up.

CM was also tested as a standalone intervention in Seattle among MSM who use MA. Unfortunately, in this study the CM intervention was found to have disappointing MA use outcomes compared to the control condition of standard referral to community resources. The researchers felt their findings suggested that CM would be unlikely to produce large, sustained reductions in MA use among MSM.[53]

Culturally Informed Treatments

While a number of *prevention* interventions have been developed for racial, ethnic, and sexual minorities from the ground up, very few treatment interventions have been. More commonly, existing treatment models have been accommodated for a particular culture. This has not always been successful. For example, Burrow-Sanchez and colleagues[54],[55] culturally accommodated a CBT intervention for Latino/Hispanic adolescents and compared it to CBT in multiple studies of in that population. Results tended to favor standard CBT over the culturally accommodated CBT.[10,24] Nonetheless, there is growing consensus that in many cases the best or most appropriate treatments for minorities are those that are tailored to their cultural contexts.[8] Unfortunately, however, RCTs of culturally informed treatments for minorities are scant. Reliance on definitions of RBPs/EBPs that emphasize demonstration of effectiveness in RCTs would leave us with few to no "effective" treatments for minorities that are culturally appropriate to them. Thus, it is important to expand our consideration of what is effective for minorities beyond strict definitions of EBPs and RBPs to include what might otherwise be considered promising practices.

Culturally informed treatments for racial/ethnic minority youth

Steinka-Fry and colleagues[10] recently conducted a meta-analytic review of what they termed "culturally sensitive" SUD treatments for racial/ethnic minority youth. From an exhaustive literature search, they identified only 7 studies that were eligible for inclusion in their analysis; some of these addressed culturally competent rather than culturally informed interventions, and two of the studies were related to the culturally accommodated CBT developed by Burrow-Sanchez and colleagues that was not appreciably more effective than standard CBT. Culturally informed treatments identified included Cherokee Talking Circle, Culturally Informed and Flexible Family-Based Treatment for Adolescents, and Structural Ecosystems Therapy. In addition, the present literature review identified a study of Dialectical Behavioral Therapy with American Indian/Alaska Native (AI/AN) adolescents with SUDs.

Cherokee Talking Circle (CTC).[56] CTC is a 10-session manual-based intervention designed for Keetoowah-Cherokee students in the early stages of substance abuse from which they experience negative consequences. Goals are to reduce substance abuse, with abstinence as the ideal outcome. Forty-five-minute group sessions are led by a counselor and cultural expert once a week over a 10-week period and are modeled after a traditional style talking circle. The manual uses both English and Cherokee

languages. The intervention was tested exclusively in the population for which it was developed. Compared to treatment as usual, results strongly favored the culturally informed intervention.[10]

Culturally Informed and Flexible Family-Based Treatment for Adolescents (CIFFTA).[57] CIFFTA is an outpatient treatment for adolescent conduct problems, depression, school failure, family conflict, delinquency/violent behavior, drug use and/or risky sexual behavior. Designed to reduce risk factors as well as identify and strengthen protective/resiliency factors, CIFFTA combines family treatment, individual treatment, and psychoeducational modules in a highly strategic manner. While the main focus is on stimulating the protective and healing processes in minority parents and families, CIFFTA works with the adolescents to help develop skills and knowledge needed to react more effectively in the face of stressors. The intervention was developed with Hispanic/Latino youth and tested exclusively in this population. Compared to traditional family therapy, results strongly favored the culturally informed intervention.[10]

Dialectical Behavior Therapy (DBT) with AI/AN Adolescents.[58] DBT is a cognitive-behavioral treatment originally developed for chronically suicidal individuals with borderline personality disorder and considered an EBP for that purpose. It has been adapted to treat SUDs. In its standard form, DBT consists of four components: (1) group skills training in mindfulness, distress tolerance, interpersonal effectiveness, and emotion regulation; (2) individual therapy to enhance motivation and successful skills implementation; (3) phone coaching on skills implementation; and (4) a therapist consultation team. The focus of treatment in DBT shifts through four stages. Stage 1 focuses on helping the client to achieve behavioral control. Stage 2 focuses on helping the client to experience difficult emotions that have previously been suppressed or avoided. Stage 3 focuses on helping the client to live a life with goals and self-respect while finding peace and happiness. For those needing or desiring more treatment, Stage 4 focuses on finding deeper meaning or spiritual fulfillment. Adapted to address substance use disorders, DBT-S takes a dialectical stance, with an unrelenting insistence on total abstinence. Should substance use occur, emphasis shifts to radical acceptance of the lapse, nonjudgmental problem-solving, and relapse prevention, while maintaining an insistence on return to total abstinence.[59] DBT-S was successfully modified for use with AI/AN adolescents at an AI/AN youth residential treatment center with the assistance of staff and a medicine man/spiritual counselor from a local tribe. In consultation with tribal leaders from the governing body of the treatment center, the spiritual counselor provided traditional practices of weekly sweat lodge ceremonies, smudging ceremonies and talking circles and helped explain the traditional practices as they related to mindfulness skills being taught in group. This adaptation of DBT-S was not evaluated with an RCT, but a pre-post study showed favorable outcomes.[58]

Structural Ecosystems Therapy (SET).[60] SET is a manualized family- and ecological-based intervention for adolescent drug abuse. Within-family components of SET are based on Brief Strategic Family Therapy: (a) joining with family members, (b) tracking and eliciting family interactions to assess family relationships, (c) reframing to create a context for behavior change to occur, and (d) restructuring maladaptive family relationships. The ecological components of SET include assessment and intervention into the adolescent's and family's relationships with the peer group, schools, and juvenile justice system: (a) joining with members of the ecology, (b) tracking ecological relationships, (c) reframing problems in the ecology, and (d) restructuring ecological relationships. SET is intended to be delivered during 12–16 BSFT-style family therapy sessions (e.g., sessions conducted with multiple family members) and 12 ecosystemic therapy sessions (e.g., sessions with family members and individuals from the family's social ecology). The intervention was developed for African American and Hispanic/Latino youth and tested exclusively in this population. Compared to treatment as usual, results weakly favored the culturally informed intervention.[10]

Culturally informed treatments for racial/ethnic minority adults

Medicine Wheel and Twelve Steps Program (MWTSP).[61] Developed by White Bison, Inc., the MWTSP is a culturally appropriate version of the twelve steps of Alcoholics Anonymous/Narcotics Anonymous for AI/AN men, women, and adolescents. It has not been subjected to a RCT.

Drum-Assisted Recovery Therapy for Native Americans (DARTNA).[62] DARTNA is a culturally informed, tribally adaptable drum behavior therapy developed for AI/AN persons with SUDs. It incorporates drumming, talking circles, the 12 steps of Alcoholics Anonymous/Narcotics Anonymous, along with the MWTSP model described above. Drumming is the primary focus of the treatment, which consists of twice weekly treatment sessions, each lasting 3 hours, conducted over a 12-week period. DARTNA has not been evaluated in a RCT but showed favorable results in a pretest study.

Holistic System of Care (HSC).[63] HSC is a culturally-based integrated outpatient SUD and mental health treatment framework for urban AI/AN persons. HSC allows a variety of cultural practices to be incorporated with EBPs, such as MI, and manualized "best practices" for AI/AN populations. Drawing on intertribal similarities and clients' individual backgrounds, traditions, practices, and

stories, counselors integrate healing practices and skills-building approaches. This model has not been subjected to an RCT, but baseline-follow-up data show favorable results.

Motivational Interviewing and Community Reinforcement Approach (MICRA).[64] MICRA is a combination of motivational interviewing (MI) and the community reinforcement approach (CRA) that has been adapted for use with AI/AN adults. MICRA is an individualized, manual-guided intervention that consists of 16-20 individual counseling sessions, containing elements of both MI and CRA. Cultural adaptations to MI include use of AI counselors who are fluent in their native language and can weave their language sessions with clients who are also fluent, discussions of how the counselor and client may be related by clan, culturally consistent greetings and introductions that involved the spiritual aspect of social interactions, and reliance on spirituality (as appropriate) and extended family and clan relations as part of enhancing motivation to make changes in substance use behaviors. Cultural adaptations to CRA seek to reengage clients in culturally relevant activities and relationships such as with extended family, clan, community, and (if applicable) spiritual and societal activities and responsibilities. MICRA has not been evaluated with a RCT but results of a pilot study were favorable.[64]

Culturally Congruent Intervention for African Americans (CCIAA).[65] CCIAA is a motivational intervention designed to be congruent with cultural values of an urban African American community and appropriate to those in the pre-contemplation or contemplation stage of change. It begins with a traditional African American meal at which the participant was joined by an intervention team consisting of one counselor and a former drug user (peer), whose role is to share thoughts and experiences validating those of the participant and to normalize ambivalence and speaking honestly about one's drug use experiences. An RCT showed favorable results for CCIAA at one year follow-up.

Celebrating Families!/¡Celebrando Familias! (CF).[66] CF is a highly interactive program for Latino/Hispanic parents in early recovery and their children, created to help families deal with SUD issues and to help unify families affected by SUDs and child abuse. The intervention uses a multi-family skill-building education/support group model. Each gathering begins with a family meal with the facilitators. The family then goes to a 90 minute session with their age group on the week's topic. Parents and children come together at the end for a 30-minute structured activity for the whole family. The program is designed to be sensitive to the needs of children of alcoholics/addicts and to learning differences. The intervention was evaluated with two non-experimental studies showing favorable results.[66]

Promotora-Delivered Intervention (PDI) for Heavy Drinkers.[67] PDI is a manualized combination of MET and strengths-based case management culturally adapted for heavy drinking, Spanish-speaking day laborers. It is a 3-session intervention delivered in 1-2 week intervals by Spanish-speaking community health workers, i.e., promotoras, who are selected to have sociodemographic characteristics in common with the populations they serve, understand community social networks and health needs and recognize and incorporate culture to promote health within their communities. The first session involves personalized feedback from an MET assessment while the second and third session involve discussion of goals, plans, and barriers related to behavior change. The intervention was evaluated in a RCT with favorable results.

Culturally Adapted Motivational Interviewing (MI). A few studies have looked at a culturally adapted version of MI for immigrant Latinos/Hispanics and compared it to standard MI with this population.[68,69] Cultural adaptation included explicitly addressing the social context of immigration, changing family dynamics, social support, and alcohol health literacy. An RCT suggested that both the adapted and un-adapted versions of MI were effective but that the adapted version was more so.[69]

Culturally informed treatments for sexual minorities

Although there do exist SUD treatment programs that are specifically designed for LGBTQ individuals, for the most part we do not yet know whether such programs are more or less effective than one-size-fits-all programs provided by providers who are sensitive to the needs and concerns of LGBTQ individuals.[49] Of the available studies of SUD treatment programs specifically for LGBTQ individuals, most do not include comparison groups allowing for comparative evaluation of their effectiveness.[48] A small self-report study of 187 men who had attended SUD treatment that inquired about their perceptions of their treatment, reasons for leaving treatment, and treatment outcomes found that gay/bisexual men who reported having attended gay-specific treatment fared better than their counterparts who reported having attended nonspecific treatment. The article did not describe ways in which the treatments had been made gay-specific.

An example of an LGBTQ-specific SUD treatment program that has not been evaluated with a comparison group is the ACON's Substance Support Service targeting MA use among MSM in Sydney, Australia. They describe their program as LGBTI-specific

(where I stands for intersex), that is, "one that is specifically tailored to LGBTI people, where staff are often LGBTI-identifying, and provides culturally sensitive care that acknowledges the historical and cultural contexts of substance use among LGBTI people. The service recognizes the historical and current barriers to health and wellbeing experienced by LGBTI communities, as well as the potential challenges in finding an inclusive service that provides culturally appropriate care." Their individual outpatient counseling model is delivered within a harm reduction framework and consists of a structured intake interview, standard clinical assessment, and typically up to 12 sessions that draw on various therapeutic modalities, including Acceptance and Commitment Therapy, CBT and Motivational Interviewing, tailored to individual client needs of clients.

In the present review of the literature, only one gay specific SUD treatment targeting substance use outcomes (as distinct from other outcomes such as those related to sexual risk-taking) could be identified that had been subjected to one or more RCTs: Gay-Specific CBT.[70] A second gay-specific intervention, ACE, was identified that targeted MA use among MSM and evaluated for efficacy but not among treatment-seeking individuals. Research specifically focused on evaluating interventions for substance use among transgender individuals is exceedingly scarce, if not practically non-existent.[71]

Gay-Specific CBT (G-CBT). Shoptaw and colleagues[51,52] developed and evaluated a gay-specific CBT intervention for gay and bisexual men who abused MA. Their intervention was initially patterned after the full MM program, consisting of 48 sessions,[51] but was later shortened to 24 group sessions over 8 weeks and was supplemented with a low-cost CM component. The researchers found that the shorter gay-specific intervention was comparably effective to the longer intervention,[52] which they had previously shown was superior to standard MM in terms of drug use and sexual risk-taking outcomes with gay and bisexual men during treatment.[51] After treatment, standard MM and gay-specific MM were comparably effective.[51]

ACE. Parsons and colleagues[72] developed and evaluated an intervention entitled ACE (they do not specify for what ACE may be an acronym), aimed at reducing methamphetamine use and addressing medication adherence among HIV-positive MSM. ACE is an 8-session manualized treatment that blends aspects of Motivational Interviewing with CBT techniques. Modules address managing thoughts and feelings, communicating effectively in interpersonal situations, identifying values and priorities, moderating substance use, and managing HIV medication adherence. ACE was more effective than an education comparison condition at reducing MA use and condomless anal sex and improving medication adherence and CD4 count relative to baseline levels.

Summary and Conclusions

In summary, racial, ethnic, and sexual minorities have unique cultural needs compared to majority counterparts that, taken into consideration in SUD treatment, stand to improve SUD treatment outcomes. In some contexts, culturally competent treatment approaches that are invariant across populations but have been demonstrated effective in minority populations are the most practical and can be beneficial. In other contexts, e.g., in AI/AN communities, treatments that do not take culture into consideration would be considered inappropriate. The state of the evidence base does not provide for an adequate menu of available treatments for racial, ethnic, and sexual minorities if the selection is limited to strict definitions for ESTs or EBPs. Providing for an integration of the best available evidence – which may not include RCTs – with clinical judgment and cultural standards will allow identification of the most appropriate and effective available treatments for minorities, many of which have been identified in this brief review.

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References

1. Smedley BD, Stith AY, Nelson AR, editors. Institute of Medicine, Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. Unequal treatment: confronting racial and ethnic disparities in health care. Washington, DC: National Academies Press; 2002.

2. Alvy LM, McKirnan D, Du Bois SN, Jones K, Ritchie N, Fingerhut D. Health care disparities and behavioral health among men who have sex with men. Journal of Gay & Lesbian Social Services. 2011 Oct 1;23(4):507-522.

3. Alegria M, Carson NJ, Goncalves M, Keefe K. Disparities in treatment for substance use disorders and co-occurring disorders for ethnic/racial minority youth. Journal of the American Academy of Child & Adolescent Psychiatry. 2011 Jan 1;50(1):22-31.

4. La Roche MJ, Christopher MS. Changing paradigms from empirically supported treatment to evidence-based practice: A cultural perspective. Professional Psychology: Research and Practice. 2009 Aug;40(4):396-402.

5. APA Presidential Task Force on Evidence-Based Practice. Evidence-based practice in psychology. The American Psychologist. 2006;61(4):271.

6. Sackett, D., Straus, S., Richardson, W., Rosenberg, W., & Haynes, R. Evidence-based medicine: How to practice and teach EBM. London: Churchill Livingstone; 2000.

7. Washington State SB 6312, Concerning state purchasing of mental health and chemical dependency treatment services

8. Sue S, Zane N, Levant RF, et al. How well do both evidence-based practices and treatment as usual satisfactorily address the various dimensions of diversity? In: Norcross JC, Beutler LE, Levant RF (eds.) Evidence-based practices in mental health: debate and dialogue on the fundamental questions. Washington, DC: American Psychological Association; 2006. p. 329–74.

9. Huey SJ, Polo AJ. Evidence-based psychotherapies with ethnic minority children and adolescents. In: Weisz JR, Kazdin AE (eds.) Evidence-based psychotherapies for children and adolescents. 3rd ed. New York: Guilford Press; 2017. p. 361–378.

10. Steinka-Fry KT, Tanner-Smith EE, Dakof GA, Henderson C. Culturally sensitive substance use treatment for racial/ethnic minority youth: a meta-analytic review. Journal of Substance Abuse Treatment. 2017 Apr 1;75:22-37.

11. Cochran SD. Emerging issues in research on lesbians' and gay men's mental health: Does sexual orientation really matter?. American psychologist. 2001 Nov;56(11):931.

12. Hall GC. Psychotherapy research with ethnic minorities: Empirical, ethical, and conceptual issues. Journal of Consulting and Clinical Psychology. 2001 Jun;69(3):502-510.

13. King, M. (2007). A systematic review of research on counselling and psychotherapy for lesbian, gay, bisexual and transgender people. British Journal of Guidance & Counselling, 35(4), 474-477.

14. Darnell, A., Goodvin, R., del Moral, S., Hicks, C., Wanner, P., Westley, E. Updated inventory of programs for the prevention and treatment of youth cannabis use. (Document Number 18-12-3201). Olympia, WA: Washington State Institute for Public Policy; 2018.

15. Miller M, Goodvin R, Grice J, Hoagland C, Westley E. Updated Inventory of evidence-based, research- based, and promising practices prevention and intervention services for adult behavioral health. (Doc. No. 16-09-4101). Olympia: Washington State Institute for Public Policy; 2016.

16. Allen JL, Mowbray O. Sexual orientation, treatment utilization, and barriers for alcohol related problems: Findings from a nationally representative sample. Drug and alcohol dependence. 2016 Apr 1;161:323-30.

17. Stoner SA, Sutherland N. Treating youth substance use: evidence based practices and their clinical significance. Seattle, WA: University of Washington Alcohol and Drug Abuse Institute; 2015 Dec.

18. Godley SH, Meyers RJ, Smith JE, Karvinen T, Titus JC, Godley MD, Dent G, Passetti L, Kelberg P. The Adolescent Community Reinforcement Approach for adolescent cannabis users, Cannabis Youth Treatment (CYT) Series, Volume 4. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2001.

19. Alexander JF, Parsons BV. Functional family therapy: principles and procedures. Carmel, CA: Brooks⁄Cole; 1982.

20. Slesnick N, Prestopnik JL. Comparison of family therapy outcome with alcohol-abusing, runaway adolescents. Journal of Marital and Family Therapy. 2009 Jul;35(3):255-77.

21. Waldron HB, Slesnick N, Brody JL, Turner CW, Peterson TR. Treatment outcomes for adolescent substance abuse at 4-and 7-month assessments. Journal of Consulting and Clinical Psychology. 2001 Oct;69(5):802-813.

22. Sampl S, Kadden R. Motivational Enhancement Therapy and Cognitive Behavioral Therapy for adolescent cannabis users: 5 Sessions, vol. 1. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2001.

23. Webb CPM, Scudder M, Kaminer Y, Kadden R. The Motivational Enhancement Therapy and Cognitive Behavioral Therapy for adolescent cannabis users, vol. 2. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2001

24. Benuto LT, O'Donohue W. Is culturally sensitive cognitive behavioral therapy an empirically supported treatment? The case for Hispanics. International Journal of Psychology and Psychological Therapy. 2015;15(3):405-21.

25. Liddle HA. Multidimensional Family Therapy for adolescent drug abuse: Clinician's manual. Center City, MN: Hazelden Publishing; 2009.

26. Henggeler SW, Schoenwald SK, Borduin CM, Rowland MD, Cunningham PB. Multisystemic therapy for antisocial behavior in children and adolescents. New York: Guilford Press; 2009.

27. Walker DD, Roffman RA, Stephens RS, Wakana K, Berghuis J. Motivational enhancement therapy for adolescent marijuana users: A preliminary randomized controlled trial. Journal of Consulting and Clinical Psychology 2006 Jun;74(3):628-632.

28. https://www.census.gov/quickfacts/wa

29. Blume AW. Advances in substance abuse prevention and treatment interventions among racial, ethnic, and sexual minority populations. Alcohol Research: Current Reviews. 2016;38(1):47.

30. Copeland J, Swift W, Roffman R, Stephens R. A randomized controlled trial of brief cognitive-behavioral interventions for cannabis use disorder. Journal of Substance Abuse Treatment 2001;21(2):55-64.

31. Chaney EF, O'Leary MR, Marlatt AG. Skill training with alcoholics. Journal of Consulting and Clinical Psychology 1978;46(5):1092-1104.

32. Miller WR, Meyers RJ, Tonigan JS. Engaging the unmotivated in treatment for alcohol problems: A comparison of three intervention strategies for intervention through family members. Journal of Consulting and Clinical Psychology, 1999;67(5):688-697.

33. Meyers RJ, Miller WR, Hill DE, Tonigan JS. Community reinforcement and family training (CRAFT): Engaging unmotivated drug users in treatment. Journal of Substance Abuse. 1998 Sep;10(3):291-308.

34. Petry NM. A comprehensive guide for the application of contingency management procedures in standard clinic settings. Drug and Alcohol Dependence 2000;58:9-25.

35. Higgins ST, Petry, N. Contingency management: incentives for sobriety. Alcohol Research & Health. 1999;23(2):123-127.

36. Witkiewitz K, Villarroel NA, Hartzler B, Donovan DM. Drinking outcomes following drink refusal skills training: Differential effects for African American and non-Hispanic White clients. Psychology of Addictive Behaviors. 2011 Mar;25(1):162.

37. Margolin A, Avants SK, Warburton LA, Hawkins KA, Shi JA. Randomized clinical trial of a manual-guided risk reduction intervention for HIV-positive injection drug users. Health Psychology 2003;22(2):223-228.

38. Crits-Christoph P, Siqueland L, Blaine J, Frank A, Luborsky L, Onken LS, Muenz LR, Thase ME, Weiss RD, Gastfriend DR, Woody GE. Psychosocial treatments for cocaine dependence: National Institute on Drug Abuse collaborative cocaine treatment study. Archives of General Psychiatry. 1999 Jun;56(6):493-502.

39. Rawson RA, Obert JL, McCann MJ, Mann AJ. Cocaine treatment outcome: Cocaine use following inpatient, outpatient, and no treatment. NIDA Research Monograph 1986;67:271-277.

40. Witkiewitz K, Greenfield BL, Bowen S. Mindfulness-based relapse prevention with racial and ethnic minority women. Addictive Behaviors. 2013 Dec 1;38(12):2821-4.

41. Miller WR, Yahne CE, Tonigan JS. Motivational interviewing in drug abuse services: A randomized trial. Journal of consulting and clinical psychology. 2003 Aug;71(4):754-763.

42. Montgomery L, Burlew AK, Kosinski AS, Forcehimes AA. Motivational enhancement therapy for African American substance users: A randomized clinical trial. Cultural Diversity and Ethnic Minority Psychology. 2011 Oct;17(4):357.

43. Bernstein J, Bernstein E, Tassiopoulos K, Heeren T, Levenson S, Hingson R. Brief motivational intervention at a clinic visit reduces cocaine and heroin use. Drug and alcohol dependence. 2005 Jan 7;77(1):49-59.

44. Wells EA, Peterson PL, Gainey RR, Hawkins JD, Catalano RF. Outpatient treatment for cocaine abuse: A controlled comparison of relapse prevention and twelve-step approaches. The American journal of drug and alcohol abuse. 1994 Jan;20(1):1-7.

45. Zlotnick C, Johnson J, Najavits LM. Randomized controlled pilot study of cognitive-behavioral therapy in a sample of incarcerated women with substance use disorder and PTSD. Behavior Therapy. 2009 Dec;40(4):325-36.

46. Nowinski J, Baker S, Carroll K. Twelve-step facilitation therapy manual: a clinical research guide for therapists treating individuals with alcohol abuse and dependence. Rockville, MD: NIAAA (NIH Publication No. 94-3722); 1995.

47. Peavy KM, Garrett S, Doyle S, Donovan D. A comparison of African American and Caucasian stimulant users in 12-step facilitation treatment. J Ethn Subst Abuse. 2017 Jul-Sep;16(3):380-399.

48. Senreich E. Are specialized LGBT program components helpful for gay and bisexual men in substance abuse treatment?. Substance Use & Misuse. 2010 May 1;45(7-8):1077-96.

49. Cochran BN, Peavy KM, Robohm JS. Do specialized services exist for LGBT individuals seeking treatment for substance misuse? A study of available treatment programs. Substance Use & Misuse. 2007 Jan;42(1):161-76.

50. Lipsky S, Krupski A, Roy-Byrne P, Huber A, Lucenko BA, Mancuso D. Impact of sexual orientation and co-occurring disorders on chemical dependency treatment outcomes. Journal of studies on alcohol and drugs. 2012 May;73(3):401-12.

51. Shoptaw S, Reback CJ, Peck JA, Yang X, Rotheram-Fuller E, Larkins S, Veniegas RC, Freese TE, Hucks-Ortiz C. Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men. Drug & Alcohol Dependence. 2005 May 9;78(2):125-134.

52. Reback CJ, Shoptaw S. Development of an evidence-based, gay-specific cognitive behavioral therapy intervention for methamphetamine-abusing gay and bisexual men. Addictive Behaviors. 2014 Aug 1;39(8):1286-1291.

53. Menza TW, Jameson DR, Hughes JP, Colfax GN, Shoptaw S, Golden MR. Contingency management to reduce methamphetamine use and sexual risk among men who have sex with men: a randomized controlled trial. BMC Public Health. 2010 Dec;10(1):774-787.

54. Burrow-Sanchez JJ, Wrona M. Comparing culturally accommodated versus standard group CBT for Latino adolescents with substance use disorders: A pilot study. Cultural Diversity and Ethnic Minority Psychology. 2012 Oct;18(4):373-383.

55. Burrow-Sánchez JJ, Minami T, Hops H. Cultural accommodation of group substance abuse treatment for Latino adolescents: Results of an RCT. Cultural Diversity and Ethnic Minority Psychology. 2015 Oct;21(4):571-583.

56. Lowe J, Liang H, Riggs C, Henson J, Elder T. Community partnership to affect substance abuse among Native American adolescents. The American journal of drug and alcohol abuse. 2012 Sep;38(5):450-455.

57. Santisteban DA, Mena MP, McCabe BE. Preliminary results for an adaptive family treatment for drug abuse in Hispanic youth. Journal of Family Psychology. 2011 Aug;25(4):610.

58. Beckstead DJ, Lambert MJ, DuBose AP, Linehan M. Dialectical behavior therapy with American Indian/Alaska Native adolescents diagnosed with substance use disorders: Combining an evidence based treatment with cultural, traditional, and spiritual beliefs. Addictive behaviors. 2015 Dec;51:84-7.

59. Linehan MM, Schmidt H, Dimeff LA, Craft JC, Kanter J, Comtois KA. Dialectical behavior therapy for patients with borderline personality disorder and drug-dependence. American Journal on Addictions. 1999 Jan;8(4):279-92.

60. Robbins MS, Szapocznik J, Dillon FR, Turner CW, Mitrani VB, Feaster DJ. The efficacy of structural ecosystems therapy with drug-abusing/dependent African American and Hispanic American adolescents. Journal of Family Psychology. 2008 Feb;22(1):51-61.

61. White Bison, Inc. Medicine Wheel and 12 Steps for Men, Medicine Wheel and 12 Steps for Women (video sets, workbooks, facilitator's manuals). Colorado Springs, CO: Wellbriety Training Institute; 2007.

62. Dickerson DL, Annon JJ, Hale B, Funmaker G. Drum-Assisted Recovery Therapy for Native Americans (DARTNA): Results from a pretest and focus groups. American Indian and Alaska Native Mental Health Research. 2014;21(1):35.

63. Wright S, Nebelkopf E, King J, Maas M, Patel C, Samuel S. Holistic system of care: Evidence of effectiveness. Substance use & misuse. 2011 Jul 29;46(11):1420-30.

64. Venner KL, Greenfield BL, Hagler KJ, Simmons J, Lupee D, Homer E, Yamutewa Y, Smith JE. Pilot outcome results of culturally adapted evidence-based substance use disorder treatment with a southwest tribe. Addictive Behaviors reports. 2016 Jun;3:21-7.

65. Longshore D, Grills C. Motivating illegal drug use recovery: Evidence for a culturally congruent intervention. Journal of Black Psychology. 2000 Aug;26(3):288-301.

66. Sparks SN, Tisch R, Gardner M. Family-centered interventions for substance abuse in Hispanic communities. Journal of Ethnicity In Substance Abuse. 2013 Jan 1;12(1):68-81.

67. Moore AA, Karno MP, Ray L, Ramirez K, Barenstein V, Portillo MJ, Rizo P, Borok J, Liao DH, Barron J, del Pino HE. Development and preliminary testing of a promotora-delivered, Spanish language, counseling intervention for heavy drinking among male, Latino day laborers. Journal of Substance Abuse Treatment. 2016 Mar;62:96-101.

68. Lee CS, López SR, Hernández L, Colby SM, Caetano R, Borrelli B, Rohsenow D. A cultural adaptation of motivational interviewing to address heavy drinking among Hispanics. Cultural Diversity and Ethnic Minority Psychology. 2011 Jul;17(3):317-324.

69. Lee CS, López SR, Colby SM, Rohsenow D, Hernández L, Borrelli B, Caetano R. Culturally adapted motivational interviewing for Latino heavy drinkers: Results from a randomized clinical trial. Journal of Ethnicity in Substance Abuse. 2013 Oct 1;12(4):356-73.

70. Lea T, Kolstee J, Lambert S, Ness R, Hannan S, Holt M. Methamphetamine treatment outcomes among gay men attending a LGBTI-specific treatment service in Sydney, Australia. PloS One. 2017 Feb 16;12(2):e0172560.

71. Glynn TR, van den Berg JJ. A systematic review of interventions to reduce problematic substance use among transgender individuals: A call to action. Transgender Health. 2017 Mar;2(1):45-59.

72. Parsons JT, John SA, Millar BM, Starks TJ. Testing the efficacy of combined motivational interviewing and cognitive behavioral skills training to reduce methamphetamine use and improve HIV medication adherence among HIV-positive gay and bisexual men. AIDS and Behavior. 2018 Mar 13:1-3.