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Culturally sensitive substance use treatment for racial/ethnic minority youth: A meta-analytic review

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ABSTRACT

This systematic review and meta-analysis synthesized findings from studies examining culturally sensitive substance use treatment for racial/ethnic minority youth. An extensive literature search located eight eligible studies using experimental or quasi-experimental designs. The meta-analysis quantitatively synthesized findings comparing seven culturally sensitive treatment conditions to seven alternative conditions on samples composed of at least 90% racial/ethnic minority youth.

The results from the meta-analysis indicated that culturally sensitive treatments were associated with significantly larger reductions in post-treatment substance use levels relative to their comparison conditions ($g = 0.37$, 95% CI [0.12, 0.62], $k = 7$, total number participants = 723). The average time between pretest and posttest was 21 weeks ($SD = 11.79$). There was a statistically significant amount of heterogeneity across the seven studies ($Q = 26.5$, $p = 0.00$, $\tau^2 = 0.08$, $I^2 = 77.4\%$). Differential effects were not statistically significant when contrasts were active generic counterparts of treatment conditions (direct "bona fide" comparisons; $g = -0.08$, 95% CI [−0.51, 0.35]) and 'treatment as usual' conditions ($g = 0.39$, 95% CI [−0.14, 0.91]).

Strong conclusions from the review were hindered by the small number of available studies for synthesis, variability in comparison conditions across studies, and lack of diversity in the adolescent clients served in the studies. Nonetheless, this review suggests that culturally sensitive treatments offer promise as an effective way to address substance use among racial/ethnic minority youth.

1. Introduction

Substance use treatment providers work with adolescents from increasingly diverse cultural backgrounds. Adolescents of diverse racial, ethnic, and cultural backgrounds vary in risk factors, patterns, rates, and consequences of substance use (Iguchi, Bell, Ramchand, & Fain, 2005; National Center for Health Statistics, 2011; Prado, Szapocznik, Maldonado-Molina, Schwartz, & Pantin, 2008; Resnicow, Soler, Braithwaite, Ahluwalia, & Butler, 2000; Shih, Miles, Tucker, Zhou, & D'Amico, 2010; Shillington & Clapp, 2003; Substance Abuse and Mental Health Services Administration (SAMHSA), 2014), and may also vary in how they respond to substance use treatment (Becker, Stein, Curry, & Hersh, 2012; Burlew, Copeland, Ahuama-Jonas, & Calsyn, 2013; Campbell, Weisner, & Sterling, 2006; Huey, Tilley, Jones, & Smith, 2014; Shillington & Clapp, 2003). However, most treatment programs for individuals with substance use disorders have been designed for and validated with homogenous, predominantly White U.S. samples (Gil, Wagner, & Tubman, 2004; Griner & Smith, 2006; Hall, 2001; Hodge, Jackson, & Vaughn, 2012). Despite growing scholarly interest in culturally sensitive substance use treatment programs, little is known about their effects on substance use outcomes, especially among racial and ethnic minority youth (Burlew et al., 2013; Huey et al., 2014; SAMHSA, 2014). This meta-analytic review therefore aims to address this gap in the literature by synthesizing the current available research evidence on the effects of culturally sensitive substance use treatment for racial/ethnic minority adolescents.

1.1. Defining cultural sensitivity

For the purposes of this review, we define culturally sensitive treatment programs as those that incorporate "ethnic/cultural characteristics, experiences, norms, values, behavioral patterns, and beliefs of a target population" into the design and delivery of the treatment program (Resnicow et al., 2000, p. 272). Although researchers and practitioners have adopted a wide range of synonyms for cultural sensitivity (including for instance, culturally accommodated, adapted, appropriate,

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centered, competent, informed, responsive, and/or tailored treatment; Bernal & Sáez-Santiago, 2006; Bernal, Jiménez-Chafey, & Domenech Rodríguez, 2009; Burlew et al., 2013; Burrow-Sanchez, Martinez, Hops, & Wrona, 2011; Ferrer-Wreder, Sundell, & Mansoory, 2012; Huey & Polo, 2008; SAMHSA, 2014; Smith, Domenech Rodríguez, & Bernal, 2011; Sue, Zane, Hall, & Berger, 2009), here we simply define culturally sensitive treatments as those that incorporate culture into the design and delivery of a substance use treatment program.

Researchers have developed various frameworks and distinguished multiple dimensions of cultural sensitivity in mental health treatment. For example, a deep structural dimension of cultural sensitivity has been differentiated from surface structure (Resnicow et al., 2000). Whereas surface structural elements focus on acceptable and relevant presentation of treatment activities and may involve use of clients' preferred language, clothing, setting, examples, or matching treatment provider based on race/ethnicity (Hodge et al., 2012; Resnicow et al., 2000), deep structural elements target core cultural or contextual factors, such as cultural explanatory models of the problem, treatment expectations, or other ethnospecific mediators of treatment outcomes (e.g., inclusion of family or spirituality) (Huey et al., 2014; Resnicow et al., 2000). Another framework for culturally sensitive interventions, based on research with Latinos and Latinas, recommends inclusion of specific elements: use of culturally appropriate and syntonic native language and culturally meaningful metaphors; cultural match between client and provider; treatment content based on cultural knowledge about values, customs, and traditions; culturally consonant presentation of treatment concepts; culturally congruent treatment goals and methods; and consideration of clients' broader socio-economic context (Bernal, Bonilla, & Bellido, 1995; Bernal & Sáez-Santiago, 2006). More recently, Hays (2009) suggested a number of steps to help integrate a multicultural perspective into psychotherapy, including identifying culture related personal strengths and supports, using those supports to develop coping resources, discriminating between internal and external influences, avoiding excessive focus on individual factors, and helping clients address external stressors. Apart from these broad frameworks, culturally sensitive aspects of treatment have also been distinguished based on their focus: on the qualities or identity of providers, on treatment process, or treatment content (Benish, Quintana, & Wampold, 2011; Huey & Polo, 2008; Huey et al., 2014; Sue et al., 2009). Other frequently mentioned culturally sensitive components of treatment involve cooperation with important members of the target community, accessible location of services, and provision of cultural sensitivity training for treatment providers (Burrow-Sanchez et al., 2011; Griner & Smith, 2006; Pan, Huey, & Hernandez, 2011).

Along with conceptual frameworks and distinctions, extant literature points to various group specific issues to consider when designing and delivering effective culturally sensitive substance use treatments. Themes relevant for African Americans, for instance, include the stressors of racial discrimination, racial identity development, values of spirituality, storytelling, familial interdependence, or gender-role obligations (Boyd-Franklin & Lockwood, 2009; Castro & Garfinkle, 2003; Hall, 2001; Hodge et al., 2012; Jackson, Hodge, & Vaughn, 2010; Jackson-Gilfort & Liddle, 1999; Jackson-Gilfort, Liddle, Tejeda, & Dakof, 2001). Latina/o clients may benefit if treatment addresses language barriers, acculturation, family structure and conflicts, or issues of ethnic identity (Castro & Garfinkle, 2003; Szapocznik, Lopez, Prado, Schwartz, & Pantin, 2006; Wagner, 2003). Treatment for Native American clients could address alienation, perceived discrimination and provider insensitivity, feelings of historical loss, resistance to disclose personal feelings, or indigenous problem solving (Hall, 2001; Whitbeck, Adams, Hoyt, & Chen, 2004). Broader constructs to take into account when working with specific racial and ethnic groups may also include interdependence, spirituality, and discrimination (Hall, 2001). Future research is yet to determine which of the various culturally sensitive frameworks, dimensions, or group specific themes are most relevant in substance use treatment for racial/ethnic minority adolescents.

1.2. Theoretical potential of culturally sensitive treatment

Although some scholars have questioned the need for cultural adaptations to treatments given increasingly "blended" and "post-ethnic" youth culture (Elliot & Mihalic, 2004; Patterson, 2004), prior research suggests a number of benefits of incorporating ethnospecific cultural considerations into mental health and substance use treatment. Cultural congruence may increase treatment utilization, reduce dropout, and produce better outcomes for racial/ethnic minorities who are typically underserved in treatment services (Chen & Rizzo, 2010; Copeland, 2006; Cummings, Wen, & Druss, 2011; Huey & Polo, 2008; Lau, 2006; Wrona, 2013). Lack of cultural consonance has been linked to a host of negative consequences such as client mistrust and discomfort, lack of understanding of or resistance to treatment activity, client-provider incompatibility and miscommunication, or failed client-treatment expectations (Castro & Garfinkle, 2003; Griner & Smith, 2006; Huey & Polo, 2008). In addition, limited research about the effects of many generic substance use treatments among particular racial/ethnic minorities has raised questions about their generalizability to racial/ethnic minority groups and concerns about their potentially diminished effects with non-White American samples (Burlew et al., 2013; Santisteban et al., 2003; Szapocznik et al., 2006). For example, a meta-analysis of psychosocial interventions for predominantly racial/ethnic minority youth (Huey & Polo, 2008) found no well-established substance use treatments for racial/ethnic minority youth and reported only one probably efficacious (MDFT; Liddle, Rowe, Dakof, Ungaro, & Henderson, 2004) and one possibly efficacious treatment (MST; Henggeler, Pickrel, & Brondino, 1999; Henggeler, Clingempeel, Brondino, & Pickrel, 2002) for youth. Another meta-analytic review of treatments for adolescent substance use reported smaller effects for group CBT interventions in studies with higher proportions of Hispanic adolescents (Waldron & Turner, 2008). On the other hand, results from a recent meta-analysis of treatment for adolescent substance use showed no evidence of differences in treatment effects related to the racial/ethnic composition of the sample (Tanner-Smith, Steinka-Fry, Kettrey, & Lipsey, 2016). This meta-analysis, based on 95 treatment-comparison group pairs, found that assertive continuing care, behavioral therapy, cognitive behavioral therapy (CBT), motivational enhancement therapy (MET), and family therapy were some of the most effective treatment types for addressing adolescent substance use, and these treatment effects did not systematically vary for samples with different racial/ethnic compositions. Given the accumulating but still inconclusive body of evidence about the effects of various generic substance use interventions for ethnic or racial minority clients, culturally sensitive treatments have been under consideration as one promising choice to address possible diminished effects of some established treatment programs or to avoid the one-size-fits-all approach to substance use treatment by accounting for client cultural context (Burlew et al., 2013).

Although many researchers and practitioners advocate culturally sensitive treatment based on its intuitive, ethical, and/or conceptual appeal, the limited empirical evidence for effects of culturally sensitive treatments on clinical outcomes is notable, especially in the field of adolescent substance use treatment (Burlew et al., 2013; Hall, 2001; Huey & Polo, 2008; Huey et al., 2014). The use of culturally sensitive approaches has also been associated with several challenges. For example, developing new treatments for specific ethnocultural groups may be costly, time consuming, and may implicate provider training difficulties if the new treatments are based on distinct or unfamiliar paradigms (Hwang, 2006). Culturally sensitive treatments focused on broad ethnocultural groups may also fail to capture within-group differences and differential needs within target minority groups, for example those related to their socioeconomic status or acculturation level (Burlew et al., 2013; Resnicow et al., 2000; Wrona, 2013); however, targeting each minority subgroup in treatment programs may be difficult to implement (Burlew et al., 2013; Lau, 2006; Wagner, 2003). Another concern is that providers may adopt prejudiced or stereotyped