Addictive Behaviors 73 (2017) 119–123

Contents lists available at ScienceDirect

Addictive Behaviors

journal homepage: www.elsevier.com/locate/addictbeh

Short Communication

Does the implementation of evidence-based and culturally competent practices reduce disparities in addiction treatment outcomes?

Erick G. Guerrero[a,*], Bryan R. Garner[b], Benjamin Cook[c], Yinfei Kong[d]

[a] Suzanne Dworak-Peck School of Social Work, Marshall School of Business, University of Southern California, 655 West 34th Street, Los Angeles, CA 90089, United States
[b] RTI, 3040 E Cornwallis Rd, Durham, NC 27709, United States
[c] Department of Psychiatry, Harvard Medical School, 2 West - Room 305 - 401 Park Drive, Boston, MA 02215, United States
[d] Mihaylo College of Business and Economics, California State University, Fullerton, CA 90089, United States

ARTICLE INFO

Keywords:
Evidence-based practices
Cultural competence
Successful treatment completion
Racial and ethnic groups

ABSTRACT

Rationale: Research is limited on the extent to which implementation of evidence-based and culturally responsive practices reduces outcome disparities in substance use disorder treatment. We examined the role of contingency management treatment (CMT), medication-assisted treatment (MAT), and culturally competent practices on Mexican Americans' rate of successful completion of treatment.
Methods: We analyzed a concatenated dataset from 153 publicly funded substance use disorder treatment programs in Los Angeles County, California, in 2011 and 2013. These data were merged with data from 15,412 adult clients in both periods, of whom we selected only Mexican Americans (46.3%) and non-Latino Whites (53.7%). The outcome was successful treatment completion. The main independent variables were client demographics, drug use severity, mental health issues, and program license and professional accreditation.
Results: Less than half of the programs highly implemented CMT, MAT, and culturally competent practices. CMT and cultural competence were not associated with successful treatment completion. However, Mexican Americans in programs with high degree of implementation of MAT had higher odds of successfully completing treatment compared to non-Latino Whites and programs with low MAT (*OR* = 1.389; 95% CI = 1.018, 1.897).
Conclusions: Findings highlight the role of MAT in reducing the disparity in treatment completion between Mexican Americans and non-Latino Whites. Implications for health policy and the dissemination of MAT are discussed.

1. Introduction

Compare to non-Latino Whites, Latinos are more likely to drop out of substance use disorder (SUD) treatment (Guerrero & Andrews, 2011) and report lower rates of treatment completion (Guerrero, Campos, Urada, & Yang, 2012; Guerrero, Marsh, Duan, et al., 2013; Substance Abuse and Mental Health Services Administration [SAMHSA], 2009a, 2009b). Evidence-based practices (EBPs) and culturally responsive treatment are considered promising approaches to improving treatment outcomes among Latinos (Bridge, Massie, & Mills, 2008; SAMHSA, 2014). Most of this evidence, however, has been drawn from controlled clinical trials (Alegría et al., 2006; Guerrero, Marsh, Khachikian et al., 2013). EBPs and culturally competent practices are not widely delivered in SUD treatment settings (Bride, Abraham, & Roman, 2010; Guerrero, He, Kim, & Aarons, 2014; Knudsen, Ducharme, & Roman, 2006). Thus, there is a need to better understand the effect of implementation of EBPs and culturally responsive treatment on outcome disparities between Latinos and non-Latino Whites receiving care in public treatment systems. To address this need, this study examined the role of contingency management treatment (CMT), medication-assisted treatment (MAT), and culturally competent practices in reducing treatment outcome disparities between Mexican Americans (i.e., the largest and fastest-growing Latino subgroup) and non-Latino Whites.

Meta-analyses have found CMT to be effective in promoting abstinence or reducing substance use by reinforcing positive behaviors to enact behavior change (Benishek et al., 2014; Prendergast, Podus, Finney, Greenwell, & Roll, 2006). Similarly, a strong evidence base supports MAT—acamprosate for alcohol dependence, buprenorphine for opioid dependence, and naltrexone for alcohol or opioid dependence—in conjunction with psychosocial interventions (Comer, Walker, & Collins, 2005; Fudala et al., 2003; Ling & Compton, 2005;

* Corresponding author.
E-mail addresses: erickgue@usc.edu (E.G. Guerrero), bgarner@rti.org (B.R. Garner), bcook@charesearch.org (B. Cook).

http://dx.doi.org/10.1016/j.addbeh.2017.05.006
Received 25 February 2017; Received in revised form 13 April 2017; Accepted 8 May 2017
Available online 09 May 2017

O'Malley, Krishnan-Sarin, Farren, Sinha, & Kreek, 2002). Cultural competence, defined as attitudes and behaviors that integrate into an organization or system appropriate for various cultural situations, has received increasing attention given that evidence indicates cultural competence in psychological interventions and treatments is highly valuable (see Sue, Zane, Nagayama Hall, & Berger, 2009, Brach & Fraser, 2000 for detailed description). However, previous studies have identified program practices, such as matching clients and providers based on language and cultural background (Guerrero & Andrews, 2011) and ensuring Spanish language proficiency (Guerrero, Khachikian, Kim, Kong, & Vega, 2013), and connections with minority communities (Guerrero, 2013) as associated with higher treatment access and retention, whereas translation of material has been associated with Latino treatment completion (Guerrero et al., 2012a). A meta-analysis also showed a small but significant treatment effect of culturally adapted interventions on substance use behaviors among Latinos (Smith & Trimble, 2016).

Considering the expected positive impact of delivering EBPs and culturally responsive care to Latinos (Guerrero, 2013; SAMHSA, 2009b; Sue et al., 2009), we hypothesized Mexican Americans accessing programs with high implementation of CMT would have higher odds of successfully completing SUD treatment compared to non-Latino Whites and programs with low implementation of CMT (Hypothesis 1). Additionally, we hypothesized Mexican Americans accessing programs with high implementation of MAT would have higher odds of successfully completing SUD treatment compared to non-Latino Whites and programs with low implementation of MAT (Hypothesis 2). Finally, we hypothesized Mexican Americans accessing programs with high implementation of cultural competence would have higher odds of successfully completing SUD treatment compared to non-Latino Whites and programs with low implementation of cultural competence (Hypothesis 3).

2. Methods

2.1. Sampling frame and data collection

Description of the data is provided elsewhere (Guerrero et al., 2015). Briefly, however, the sampling frame for program and client data included all SUD treatment programs funded by the Department of Public Health in Los Angeles County, California. This study used a concatenated dataset from 153 programs and 15,412 clients collected at two time points. These data included 100 programs in 2011 and 92 programs in 2013, with 39 programs in both waves. The program and client data were merged in both periods, of whom we selected only Mexican American (46.3%) and non-Latino White clients (53.7%). Most clients were male (64%), 36 years of age on average, and 27% reported having a mental illness. See Table 1 for additional details.

2.2. Measures

2.2.1. Dependent variables

Successful SUD treatment completion relied on three indicators based on official discharge codes indicating whether clients successfully completed the major goals set forth in their recovery plan for that episode and whether clients reported sobriety at discharge. This dichotomous measure was coded 1 if clients met the following criteria: (a) the client reported no alcohol or drug use during the 30 days prior to discharge, (b) the clinician reported client sobriety at discharge, and (c) the clinician coded treatment episode as successful based on the client meeting treatment goals for that episode. Using three indicators of success, this measure of treatment completion is more comprehensive than other studies that have relied on a single variable (Jacobson, Robinson, & Bluthenthal, 2007; SAMHSA, 2009a).

Table 1
Substance use disorder treatment program (N = 153) and client (N = 15,412) characteristics.

	2011 % or M (SD)	2013 % or M (SD)
Program		
CMT**	43.0	15.2
MAT**	16.0	6.5
Cultural competence	33.7	29.0
Licensed	96.0	94.6
Accredited**	16.0	23.9
Client		
Mexican American**	44.5	49.7
Female*	36.7	35.2
Age*	36.4 (12.5)	36.0 (13.8)
Education level**	2.2 (0.5)	2.7 (0.9)
Primary drug**		
Heroin	26.1	36.8
Alcohol	25.0	16.9
Methamphetamine	25.3	21.8
Marijuana or hashish	10.5	13.6
Other	13.2	10.8
Days of primary drug use**	13.8 (13.1)	16.7 (13.3)
Age at first use*	20.1 (8.2)	19.8 (8.1)
Medicaid eligibility**	27.1	24.4%
Mental illness	27.2	27.0%
Treatment type**		
Outpatient	49.5	42.7%
Methadone	4.4	5.9%
Residential	46.1	51.4%
No. of programs[a]	100	92
No. of clients	7305	8107

CMT = programs reporting high implementation of contingency management treatment; MAT = Programs reporting high implementation of medication-assisted treatment.
[a] Some programs were operating in both 2011 and 2013, therefore the total sample of programs was 153.
* Statistically significant differences at $P < 0.05$.
** Statistically significant differences at $P < 0.01$.

2.2.2. Independent variables

Program staff rated implementation of CMT and implementation of MAT on 5-point Likert scales (1 = *never* to 5 = *always*) according to how often they were used in their program. Given its positively skewed distribution, we dichotomized this variable to indicate programs reporting high implementation (i.e., 1 = *75th percentile or greater*). Table 1 describes the included dependent and independent measures.

Cultural competence included six domains with 57 items total, representing culturally competent practices (Mason, 1995). Items measured supervisors' report on their program staff's (a) knowledge of racial and ethnic minority community needs; (b) personal involvement in racial and ethnic minority communities; (c) development of resources and linkages to serve racial and ethnic minorities; (d) reaching out to racial and ethnic minority communities; (e) hiring and retention of staff members from racial and ethnic minority backgrounds; and (f) development of policies and procedures to effectively respond to the service needs of racial and ethnic minority patients. All items were rated on a 4-point Likert scale (1 = *not at all* to 4 = *often*) and aggregated to determine degree of cultural competence. Cronbach's α coefficients ranged from 0.72 to 0.98. This measure was also dichotomized to select only programs reporting high degree of implementation (i.e., 1 = *75th percentile or greater*).

2.2.2.1. Mexican American. This categorical measure featured a dummy variable representing whether Latino clients reported having a Mexican background regardless of generation in the United States (1 = *Mexican American*; 0 = *not Mexican American*).

2.2.2.2. Substance abuse and mental health. These variables included primary drug used at intake, age at first drug use, and categorical measures of whether clients reported a history of mental health issues