Examining the Role of Leadership Capacity in the Implementation of

Organizational Cross-Cultural Competence

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Abstract

Background/Purpose: Leaders of addiction treatment organizations face significant challenges to implementing cross-culturally competent practices due to their low readiness to respond to the rapid changes in client demographics in the U.S. health care industry. This study aimed to evaluate the organizational capacity of addiction treatment organizations in Los Angeles, California, to implement cross-culturally competent practices.

Methods: Using a randomly selected sample of 122 organizations located in ethnically diverse communities, we relied on structural equation modeling to validate measures and identify relationships between leadership capacity, organizational readiness for change, and implementation of cross-culturally competent practices. A path analysis was initially fitted with these three constructs measured as composite measures. A second full structural model accounted for measurement errors and tested the mediational role of readiness for change in the relationship of leadership capacity with five sub-domains of cross-cultural competence.

Results: All measures reported adequate Cronbach's alphas—leadership capacity ($\alpha = .943$), readiness for change ($\alpha = .932$) and cross-culturally competent practices ($\alpha = .893$). The hypothesized path analysis model fit the data well ($\chi2 = 45.853$, df $= 39$, $p > .5$, CFI $= .990$, TLI $= .986$, RMSEA $= .038$). Significant associations were found between leadership, readiness for change, and cross-culturally competent practices using composite measures. However, when fitting the full structural model, leadership capacity was only associated with one dimension of cross-cultural competence: personal involvement ($\chi2 = 94.485$, df $= 71$, $p < .05$ $\chi2/df = 1.331$, CFI $= .973$, TLI $= .961$, RMSEA $= .052$)

Conclusions/Implications: By building resources and adjusting attitudes for change among staff, leaders are able to promote staff involvement in minority communities. Implications for future research include identifying specific managerial strategies to sustain implementation efforts of other cross-culturally competent practices and evaluate their impact on client treatment outcomes.

Introduction

Leaders of health organizations face significant challenges to implementing cross-culturally competent practices to respond to the increasing diversity of clients receiving health services in the United States. Current funding initiatives emerging from health care reform will present a great opportunity for these leaders to foster the implementation of cross-culturally responsive practices and consequently improve standards of care for underserved racial and ethnic minority populations. Cross-cultural competence—the recognition and responsiveness of organizations to the service needs of culturally and linguistically diverse populations—has become a widely supported service innovation that requires culturally responsive management approaches to be effectively implemented. The emergent literature on implementation of evidence-based practices highlights the role of leadership and readiness for change as key factors to effectively implement innovative practices in behavioral health organizations (Aarons, Wells, Zagursky, Fettes, & Palinkas, 2009; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Guerrero, in press; 2012; Howard, 2003). However, only limited empirical research has examined the extent to which leadership contributes to building capacity for implementation of innovative practices in health care organizations (Aarons, 2006; Aarons & Palinkas, 2007). Empirical research on leadership and other organizational factors that foster the implementation of cross-cultural competence in addiction health organizations is also limited.

Culturally sensitive leaders exert a primary influence on an organization's implementation of culturally competent practices, which may include recruiting minority staff and developing policies and procedures that support diversity, among other management practices (Betancourt, Green, Carillo, & Anaheh-Firempong, 2003; Center for Substance Abuse Treatment, 2009; Fixsen et al., 2005; Guerrero, 2010; Prince Inniss, Nessman, Mowery, Callejas & Hernandez, 2009). In the current study, we seek to validate a measure of leadership capacity

and test its association with the implementation of different subdimensions of cross-culturally competent practices. These subdimensions mainly represent attitudes, behaviors, policies, and structures that are believed to be necessary to effectively engage members from racial and ethnic minority backgrounds. Findings from this study can inform measurement approaches, as well as policy interventions to help leaders of addiction health organizations build capacity to implement cross-culturally responsive and evidence-based practices.

Leaders of addiction health organizations face significant barriers to decreasing their reliance on practices supported by traditional norms and effectively implementing innovative approaches with demonstrated impact on treatment outcomes. These barriers to effectively implementing evidence-based practices are associated with introducing change in hectic, poorly resourced organizations with unstable funding, passive leadership, high staff turnover, and limited technical resources to conduct clinical operations and support effective decision-making (CSAT, 2009; McLellan, Carise, & Kleber, 2003). This uncertain and demanding organizational context requires skilled leaders with numerous competencies to connect and motivate staff, mobilize resources, and evaluate implementation of better practices until they are sustained (Edwards, Knight, Broome, & Flynn, 2010; Simpson & Flynn, 2007; Center for Substance Abuse Treatment, 2009). By examining the leadership components associated with developing staff and preparing them for change, this study may specifically inform training interventions for leaders to implement changes, such as distinct cross-culturally competent practices.

Conceptual Framework

Leadership is an emerging focal point in efforts to promote the implementation of evidence-based practices and improve client treatment outcomes (Broome, Flynn, Knight, & Simpson, 2007; Guerrero, 2010; Guerrero & Andrews, 2011). In particular, leadership styles— such as a transactional orientation, which involves guiding performance, and a transformational

approach, which involves leading by example and motivating self-growth—are essential components of leadership associated with fostering change (Avolio, Bass, & Jung, 1999). In addiction health organizations, these components can be understood as leadership capacity, which has been positively associated with staff satisfaction, a critical aspect of the implementation process (Broome et al., 2007; Edwards et al., 2010). Health care leaders are now required to utilize this relational and evaluative capacity to promote readiness for change and subsequently improve both organizational performance and patient health outcomes (Edwards et al., 2010; Fuller et al., 2007; Lehman, Greener, & Simpson, 2002; McConnell, Hoffman, Quanbeck, & McCarty, 2009; Shortell, Rundall, & Hsu, 2007).

Leaders of addiction health organizations have significant influence over the process associated with the use of new technologies or knowledge to successfully engage clients in addiction treatment. This process has been described and tested by the organizational readiness-for-change framework, which highlights staff motivation and attributes, as well as organizational resources and climate, as key analytical constructs in the process of exposing, adopting, implementing, and routinizing new practices (Lehman et al., 2002; Simpson & Flynn, 2007). Attributes such as positive peer influence, opportunities for professional growth, and a strong sense of organizational mission are associated with higher implementation of cognitive-behavioral treatment approaches (Broome et al., 2007; Lehman et al., 2002), whereas staff training and high external pressures are associated with implementing mental health treatment in addiction health organizations (Gotham, Claus, Selig, & Homer, 2010). Training and positive climate are also linked with greater client retention in treatment (Greener, Joe, Simpson, Rowan-Szal, & Lehman, 2007; Simpson, Joe, & Rowan-Szal, 2007). Although the readiness-for-change framework is limited in terms of describing the actors responsible for initiating, implementing, and evaluating the process of change, it encompasses critical staff and organizational domains

that may support the implementation of policies and practices, as well as staff and management skills and attitudes considered cross-culturally responsive.

Prior studies that have attempted to operationalize cultural competence have identified a diverse set of organizational practices, attitudes, and services that can be adapted to enhance the cross-cultural sensitivity and responsiveness of health care organizations (Brach & Fraser, 2000; Fisher, Burnet, Huang, Chin, & Cagney, 2007; Harper et al., 2009; Lewin Group, 2002; Prince Inniss et al., 2009; Weelch-Maldonado, 2002). These studies have identified several organizational domains in which culturally competent practices can be developed, including leaders' knowledge of and personal involvement in racial and ethnic minority communities, development of resources and linkages to serve racial and ethnic minorities, hiring and retaining staff from racial and ethnic minority backgrounds, reaching out to racial and ethnic minority communities, and developing policies and procedures to effectively respond to the service needs of racial and ethnic minority patients (Ohio Department of Mental Health, 2003). Although much work has focused on defining and conceptualizing organizational cultural competence, standardized and empirically validated scales designed to measure cross-cultural competence in health services have been limited (Cross, Bazron, Dennis, & Isaacs, 1989; Harper et al., 2009; Lewin Group, 2002).

Despite growing recognition of the importance of cross-culturally competent service provision in health care services for minorities, conceptualizing and measuring organizational cultural competence has been a persistent challenge for researchers and practitioners alike. Attempts to identify management and service practices that are linguistically and culturally relevant for service outcomes have suffered from several methodological flaws (Fisher et al., 2007; Lewin Group, 2002). Many existing measures of organizational cultural competence have relied upon single case designs or small samples, leading to problems in assessing validity and

generalizability (Cross et al., 1989; Gonzalez-Calvo, Gonzalez & Lorig, 1997; Harper et al., 2009; Lewin Group, 2002; National Center for Cultural Competence, 2007; Smith, 1998). Others have relied upon expert panels to develop measures, which remain for the most part unvalidated (Harper et al., 2009). However, a few measures, although lacking relevant areas (i.e., policies and community) have been validated with nationally representative samples.

Guerrero and Andrews (2011) validated a measure with 14 practices and found the most commonly offered practices in addiction health services in the United States in 1995 included (1) matching providers and clients based on language/dialect; (2) offering cross-cultural training; (3) fostering connections with community and faith-based organizations connected to racial and ethnic minority groups; and (4) managers' cultural sensitivity to the service needs of minority clients. Despite this development, there remains a need for measures of organizational cultural competence that are comprehensive, theoretically informed, and empirically grounded. In the current study, we rely on a comprehensive and validated measure of cultural competence that relies on several subdomains capturing knowledge, involvement, linkages—reaching out to communities of color and diversifying the workforce—as well as organizational policy and procedures (Ohio Department of Mental Health, 2003).

As such, our conceptual model considered a comprehensive conceptualization of organizational cross-cultural competence and a predictive model in which leadership capacity helps initiate and sustain the implementation process. Through this investment, leaders are able to mobilize resources, motivate change, and evaluate progress towards implementation of innovative practices (Batillana, Gilmartin, Sengul, Pache, & Alexander, 2010). Considering our conceptual framework, we posited the following mediational hypotheses:

Hypothesis 1: Leadership capacity will be positively associated with organizational readiness for change, which in turn will be positively associated with managers' personal involvement in racial and ethnic minority communities.
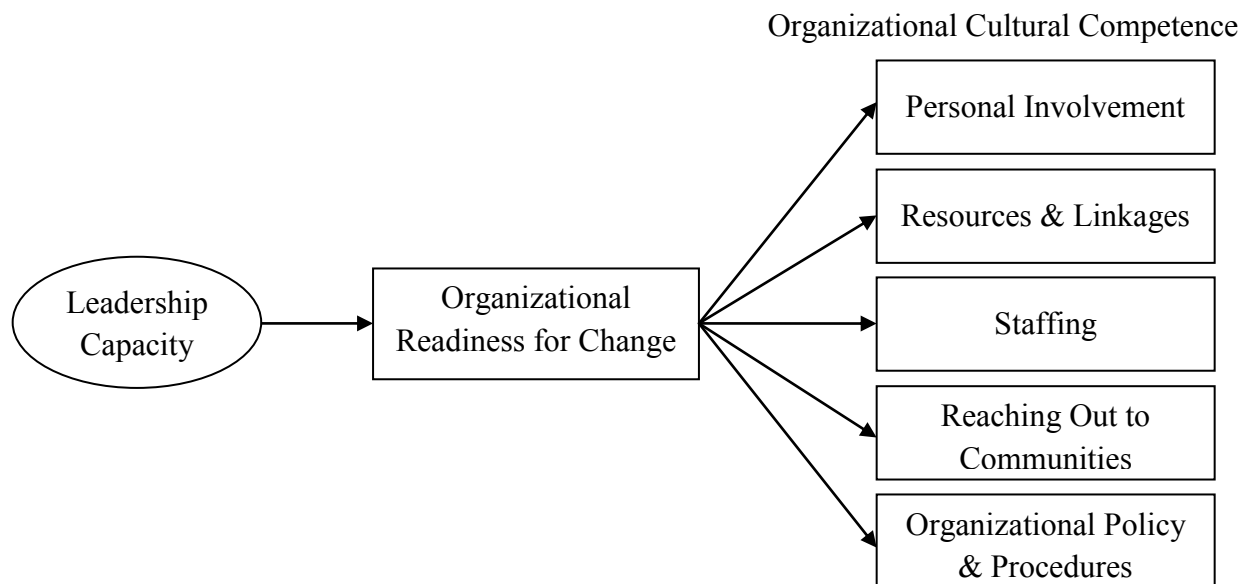
Hypothesis 2: Leadership capacity will be positively associated with organizational readiness for change, which in turn will be positively associated with the implementation of resources and linkages associated with effectively serving racial/ethnic minority communities.

Hypothesis 3: Leadership capacity will be positively associated with organizational readiness for change, which in turn will be positively associated with the implementation of hiring and retaining staff from racial and ethnic minority backgrounds.

Hypothesis 4: Leadership capacity will be positively associated with organizational readiness for change, which in turn will be positively associated with the implementation of practices to reach out to racial and ethnic minority communities.

Hypothesis 5: Leadership capacity will be positively associated with organizational readiness for change, which in turn will be positively associated with the implementation of organizational policies and procedures pertaining to implementing culturally competent practices.

Figure 1. Conceptual Model

Organizational Cultural Competence

- Personal Involvement
- Resources & Linkages
- Staffing
- Reaching Out to Communities
- Organizational Policy & Procedures

Leadership Capacity → Organizational Readiness for Change

Methods

Sampling and Procedures

Data were collected in 2010-2011 from a random sample of program managers via site visits and online surveys. All measures were provided by one manager (i.e., clinical supervisor). The sample frame consisted of 408 publicly funded addiction treatment organizations from Los Angeles County, California. From this sample, a random selection of 147 programs was drawn from communities with a population of 40% or more Latino residents. Latinos represent more than 56% of the county's population. The final analytical sample consisted of 122 programs with full information. Missing data was less than 3% across all survey measures.

Measures

Leadership capacity. One factor with 9 items represented leadership capacity, including 2 subscales of transformational and transactional leadership (Edwards et al., 2010). Among the 9 items, 7 items measured transformational leadership and 2 items measured transactional leadership. Leadership capacity was rated on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*), and scores were totaled as suggested by the authors of this measure (Edwards et al., 2010). Higher scores represented higher leadership capacity. The Cronbach's alpha for leadership capacity was α = .939.

Organizational readiness for change. The organizational readiness for change framework developed at Texas Christian University encompasses the following 4 domains measured by several subscales; motivational readiness (3 scales), resources (2 scales), staff attributes (2 scales), and organizational climate (4 scales) (Lehman et al., 2002; Simpson & Flynn, 2007). A total of 67 items were used to evaluate all of these subscales. All items were rated on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Scale scores were composed by reverse-coding 11 items, then totaling all the items. Higher scores represented higher levels of

readiness for change. The Cronbach's alpha for this measure was α = .849. We also scored these

subdomains, as suggested by authors of the measure, producing a composite measure of

readiness for change. This composite measure was our main mediational variable.

Organizational cultural competence. The cultural competence measure included 5 factors

with 3, 15, 12, 8, and 10 items each, representing culturally competent practices (Ohio

Department of Mental Health, 2003). These factors measured (1) personal involvement in racial

and ethnic minority communities, (2) development of resources and linkages to serve racial and

ethnic minorities, (3) hiring and retaining staff from racial and ethnic minority backgrounds, (4)

reaching out to racial and ethnic minority communities, and (5) developing 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*). The Cronbach's alphas for

each of the five subscales were α = .794, α = .845, α = .757, α = .693 and α = .832, respectively.

To be able to examine the indirect effect of leadership on the implementation of each of these

subdomains, we tested the psychometric properties of each subdomain initially and then added

only robust measures in the final predictive model.

Analytical Procedure

To prepare for testing all hypotheses, as a first step we relied on confirmatory factor

analysis to validate all measures of leadership capacity, organizational readiness for change, and

organizational cultural competence. To determine the model's fit, goodness-of-fit indexes

including the chi-square test (χ^2), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and

Root Mean Square Error of Approximation (RMSEA) were used. Non-significant results of the

chi-square test represent a perfect fit between the model and data; however, the chi-square test is

sensitive to sample size (Hu & Bentler, 1999). Thus, in cases in which the chi-square test results

are significant, a value of χ^2/df is estimated and a value of χ^2/df less than 3 is considered an

acceptable fit (Kline, 2005). Additionally, Browne and Cudeck (1989) indicated that an RMSEA estimate of .05 or less indicates a very good fit, whereas an RMSEA between .05 and .08 indicates a fair to mediocre fit and between .08 and .10 indicates a poor fit. The RMSEA estimate has been recognized as a superior model fit index because it is a measure of model error (Browne & Cudeck, 1989). CFI and TLI values of .90 or more suggest a good fit between a model and data (Hu & Bentler, 1999). Before conducting hypotheses testing, descriptive statistics were examined to identify expected relationships among variables and to help validate measures.

Once measures were validated, we included them in the structural equation modeling (SEM). We used SEM to obtain estimates of how well the data represent the theoretical model by validating latent constructs (see Figure 1) and to determine the strength of the predictive paths in the mediating model. The analytical procedure includes models that take into account model specification and measurement errors to identify robust predictors of implementation and outcomes. To ensure the proper specification of the measurement and structural models using data drawn from Likert scales, analyses included maximum likelihood with robust errors estimation. SEM analyses for two models were conducted. The first model included a path analysis model assessing the relationship among the composite measures of leadership capacity, readiness for change, and cross-cultural competence. The second model included a structural equation model testing the relationships between the latent concept of leadership capacity, the composite score of readiness for change, and the 5 subdomains of cross-cultural competence. All analyses were conducted on Mplus, version 5.0, and global estimates of model fit were examined (Muthén & Muthén, 2010).

Results

Descriptive Results

   The descriptive statistics show a strong correlation among leadership capacity and

organizational readiness for change. Although the composite scores for all 3 measures were

highly correlated, only one subdomain of cross-cultural competence was found to be associated

with leadership capacity and readiness for change. See Table 1.

Table 1. Correlations, Means, and Standard Deviations

	1	2	3	4	5	6	7	Mean	SD
1. LC	1							3.894	.694
2. ORC	.458**	1						3.448	.272
3. OCC-PI	.247**	.318**	1					2.650	.760
4. OCC-R&L	.107	.186	.360**	1				2.739	.550
5. OCC-S	.078	.013	.338**	.378**	1			2.641	.573
6. OCC-RC	.147	.071	.308**	.555**	.483**	1		2.756	.678
7. OCC-OPP	.150	.289**	.291**	.530**	.398**	.473**	1	2.383	.676
8. OCC	.246*	.336**	.553**	.826**	.655**	.773**	.767**	2.684	.416

Note. LC = leadership capacity; ORC = organizational readiness for change; PI = personal involvement; R&L =
resources and linkages; S = staffing; RC = reaching out to communities; OPP = organizational policy and
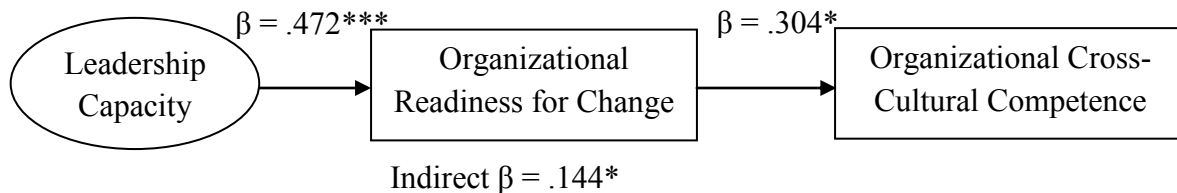procedures.
*$p < .05$; **$p < .01$; $n = 122$

   The Confirmatory Factor Analysis (CFA) modeling showed that leadership capacity had

strong psychometric properties. The one factor model of leadership capacity fit the data well (χ^2

= 37.536, *df* = 25, *p* > .05, CFI = .977, TLI = .966, RMSEA = .064) and the item loadings ranged

from .636 to .900. The readiness for change measure with 67 items showed adequate

psychometric properties, but it could not be included in the structural equation model because it

did not allow the model to converge. Hence, this measure was included as a composite variable

following the algorithm suggested by authors for this measure (see Lehman et al., 2002; Simpson

& Flynn, 2007). Finally, the CFA estimates of the cross-cultural competence measure showed

strong psychometrics properties except for one of the subdomains, knowledge of communities,

which was excluded. Out of six sub-domains, the remaining 5 were fully described in this paper

and tested as proposed in the above-mentioned hypotheses.

Model Testing Results

Findings show support for the proposed path analysis model using composite measures of leadership capacity, readiness for change, and cross-cultural competence. The path model reported adequate model fit statics ($\chi^2 = 45.853$, *df* = 39, *p* > .5, CFI = .990, TLI = .986, RMSEA = .038). Leadership capacity was positively associated with readiness for change (β = .472, *p* < .001), which in turn was positively associated with the implementation of cross-cultural competence (β = .304, *p* < .05). Further, an indirect effect was found between leadership capacity and cross-cultural competence (β = .144, *p* < .05). See Figure 2.

Figure 2. Tested Model 1

β = .472*** β = .304*

Leadership Capacity → Organizational Readiness for Change → Organizational Cross-Cultural Competence

Indirect β = .144*

*p < .05; **p < .01; ***p < .001; n = 122

Further, we successfully fit a model that accounted for the measurement error of leadership capacity and tested its indirect effect on the 5 subdomains of cross-cultural competence as hypothesized (χ^2 = 94.485, *df* = 71, *p* < .05 χ^2/*df* = 1.331, CFI = .973, TLI = .961, RMSEA = .052). This model accounted for the correlation among the unobserved variance from each factor representing the latent concept of leadership capacity, as suggested by other studies on measurement models (Kline, 2005). See Table 2 and Figure 2.
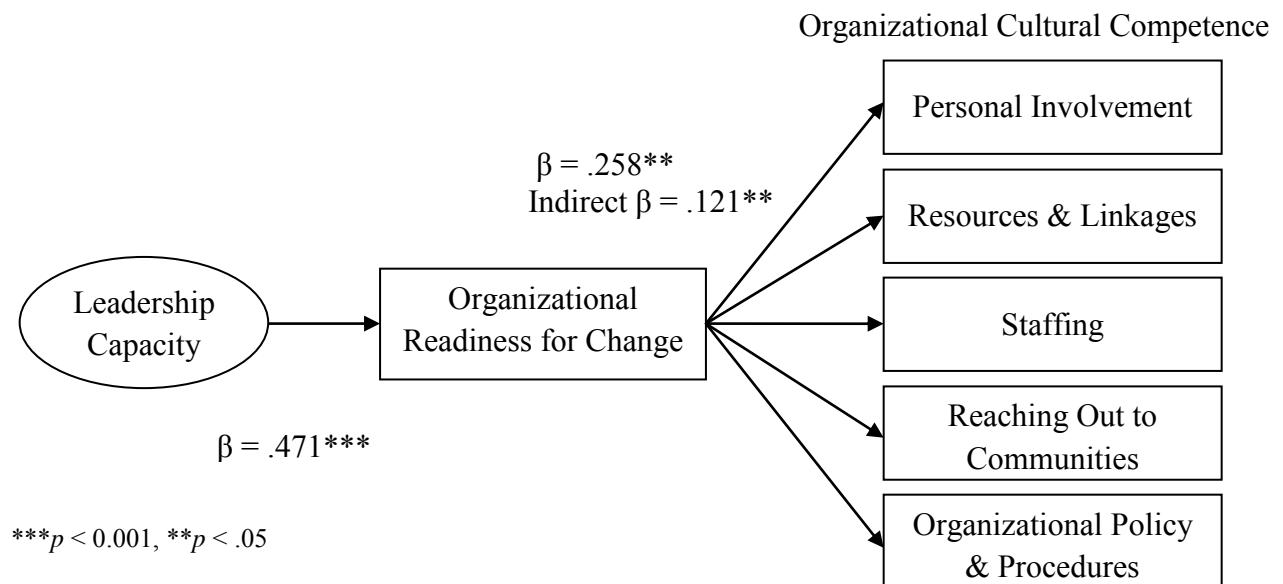
Table 2. Parameter Estimates for the Mediation Model

	Model 1		Model 2	
	Estimate	SE	Estimate	SE
LC → ORC	.472***	.078	.471***	.077
ORC → OCC	.304*	.133		
ORC → OCC-Personal Involvement			.258**	.083
ORC → OCC-Resources &Linkages			.151	.118
ORC → OCC-Staffing			-.008	.133
ORC → OCC-Reaching Out to Communities			-.007	.143
ORC → OCC-Organizational Policy & Procedures			.241	.144

Note. SE = standard error; LC = leadership capacity; ORC = organizational readiness for change; OCC = organizational cultural competence
*$p < .05$; **$p < .01$; ***$p < .001$, $n = 122$

Findings from this full model supported Hypothesis 1. Leadership capacity was positively associated with personal involvement in racial and ethnic minority communities through the mediational role of organizational readiness for change. Although leadership capacity was strongly associated with organizational readiness for change, readiness for change was only associated with personal involvement and partially related to organizational policies and procedures. No mediational effects were found with other subdomains of cross-cultural competence; hence Hypotheses 2-5 were not supported.

Figure 3. Tested Model 2

Organizational Cultural Competence

Personal Involvement

$\beta = .258**$
Indirect $\beta = .121**$

Resources & Linkages

Leadership Capacity → Organizational Readiness for Change → Staffing

Reaching Out to Communities

$\beta = .471***$

Organizational Policy & Procedures

***$p < 0.001$, **$p < .05$

Discussion

Leadership capacity plays a significant role in building readiness for change among addiction health organizations and involvement in racial and ethnic minority communities. The latent concept of leadership capacity, measured by items from the transformational and transactional approaches, predicted the implementation of personal involvement in racial and ethnic minority communities through the mediational role of readiness for change. As the health care system seeks to enhance the standard of care for racial and ethnic minorities to reduce health disparities, findings from this study can inform both methodologies to measure leadership, readiness for change, and cross-cultural competence, and health care policies to invest in leadership training that enhances organizational readiness for change, as well as capacity to implement cross-culturally competent practices.

Limitations

Several issues, including methodological challenges, complicate the relationship between our measure of leadership capacity and the implementation of cross-cultural competent practices, and should be considered when interpreting these findings. To start, the structure of the survey data did not allow for establishing causality or directionality. This is cross-sectional data, and explored factors may be bidirectional; addiction health organizations with higher readiness for change may attract leaders with higher transformational and transactional capacity. Yet, the robust mediational relationship found between leadership capacity and managers' personal involvement in communities of color suggests that leadership is only relevant to personal involvement in organizations with higher readiness for change; namely, resources, disposition, and skills targeted to change.

A second limitation of this study was the inability to test a full structural model using latent concepts for leadership, readiness for change, and cultural competence. The complexity of

the measurement model did not allow the 67-item measure of readiness for change to be included in the structural model without biasing estimates. Despite this methodological challenge, all measures were validated separately and we accounted for measurement error in the full model, producing unbiased estimates of the relationship among these complex organizational constructs.

Conclusions/Implications

Findings underscore the crucial role of leadership in building readiness for change in different aspects of the organization. Leadership capacity predicted implementation of personal involvement in racial and ethnic minority communities through the mediational role of readiness for change. Although the relationship between leadership capacity and readiness for change is consistent with theoretical and empirical studies (Edwards et al., 2010), the mediational role of readiness for change to increase the implementation of practices that promote involvement of managers in racial and ethnic minority communities and other organizations is novel.

The indirect relationship of leadership with personal community involvement seems to be very relevant among addiction health organizations located in racial and ethnic minority communities. In this context, leadership plays a pivotal role in building capacity, particularly in terms of "leading by example." When leaders invest in communities of color, they potentially gain the buy-in, motivation, and practical knowledge that management training requires to effectively implement cross-cultural competence.

These findings can inform future research on measurement methodologies as well as health care management policies to support leadership styles that help build both capacity in terms of readiness for change and connections with communities of color. Implications for future research include identifying managerial strategies to sustain implementation efforts of cross-culturally competent practices and evaluating their impact on treatment outcomes. Future research can examine the extent to which leadership capacity enables managers to serve as role

models for staff cross-cultural competencies that may potentially lead to higher engagement and

learning among staff and clients from different racial and ethnic minority backgrounds.

References

Aarons, G. A. (2006). Transformational and transactional leadership: Association with attitudes

toward evidence-based practice. *Psychiatric Services*, *57*(8), 1162-1169.

doi:10.1176/appi.ps.57.8.1162

Aarons, G. A., & Palinkas, L. A. (2007). Implementation of evidence-based practice in child

welfare: Service provider perspectives. *Administration and Policy in Mental Health &*

Mental Health Services Research, *34*(4), 411-419. doi:10.1007/s10488-007-0121-3

Aarons, G. A., Wells, R. S., Zagursky, K., Fettes, D. L., & Palinkas, L. A. (2009). Implementing

evidence-based practice in community mental health agencies: A multiple stakeholder

analysis. *American Journal of Public Health*, *99*(11), 2087-2095.

doi:10.2105/AJPH.2009.161711

Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of

transformational and transactional leadership using the Multifactor Leadership

Questionnaire. *Journal of Occupational and Organizational Psychology*, *72*(4), 441-462.

doi:10.1348/096317999166789

Battilana, J., Gilmartin, M., Sengul, M., Pache, A.-C., & Alexander, J. A. (2010). Leadership

competencies for implementing planned organizational change. *Leadership Quarterly*,

21(3), 422-438. doi:10.1016/j.leaqua.2010.03.007

Betancourt, J. R., Green, A. R., Carillo, J. E., & Anaheh-Firempong, O., II. (2003). Defining

cultural competence: A practical framework for addressing racial/ethnic disparities in

health and health care. *Public Health Reports*, *118*(4), 293-302.

Brach, C., & Fraser, I. (2000). Can cultural competency reduce racial and ethnic health

disparities? A review and conceptual model. *Medical Care Research and Review*,

57(Suppl. 1), 181-217. doi:10.1177/107755800773743655

Broome, K. M., Flynn, P. M., Knight, D. K., & Simpson, D. D. (2007). Program structure, staff

perceptions, and client engagement in treatment. *Journal of Substance Abuse Treatment*,

33(2), 149-158. doi:10.1016/j.jsat.2006.12.030

Browne, M. W, & Cudeck, R. (1989). Single sample cross-validation indices for covariance

structures. *Multivariate Behavioral Research*,*24*, 445-455.

Center for Substance Abuse Treatment. (2009). *Implementing change in substance abuse

treatment programs* (TIP Series 31, DHHS Publication No. (SMA) 09-4377). Rockville,

MD: Substance Abuse and Mental Health Administration.

Cross, T., Bazron, B., Dennis, K., & Isaacs, M. (1989). *Towards a culturally competent system of

care: Vol. 1*. Washington, DC: Georgetown University Child Development Center,

CASSP Technical Assistance Center.

Edwards, J. R., Knight, D. K., Broome, K. M., & Flynn, P. M. (2010). The development and

validation of a transformational leadership survey for substance use treatment programs.

Substance Use & Misuse, *45*(9), 1279-1302. doi:10.3109/10826081003682834

Fisher, T. L., Burnet, D. L., Huang, E. S., Chin, M. H., & Cagney, K. A. (2007). Cultural

leverage: Interventions using culture to narrow racial disparities in health care. *Medical

Care Research and Review*, <u>*64*</u>(5, Suppl.), 243S-282S. doi:10.1177/1077558707305414

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005).

Implementation research: A synthesis of the literature (FMHI Publication No. 231).

Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute,

National Implementation Research Network.

Fuller, B. E., Rieckmann, T., Nunes, E. V., Miller, M., Arfken, C., Edmundson, E., & McCarty,

D. (2007). Organizational readiness for change and opinions toward treatment

innovations. *Journal of Substance Abuse Treatment*, *33*(2), 183-192.

doi:10.1016/j.jsat.2006.12.026

González-Calvo, J., González, V.M., Lorig, K. (1997). Cultural diversity issues in the

development of valid and reliable measure of health status. Arthritis and Rheumatoid, 10,

448-456.

Gotham, H. J., Claus, R. E., Selig, K., & Homer, A. L. (2010). Increasing program capability to

provide treatment for co-occurring substance use and mental disorders: Organizational

characteristics. *Journal of Substance Abuse Treatment*, *38*(2), 160-169.

doi:10.1016/j.jsat.2009.07.005

Greener, J. M., Joe, G. W., Simpson, D. D., Rowan-Szal, G. A., & Lehman, W. E. K. (2007).

Influence of organizational functioning on client engagement in treatment. *Journal of*

Substance Abuse Treatment, *33*(2), 139-147. doi:10.1016/j.jsat.2006.12.025

Guerrero, E. G. (2010). Managerial capacity and adoption of culturally competent practices in

outpatient substance abuse treatment organizations. *Journal of Substance Abuse*

Treatment, *39*(4), 329-339. doi:10.1016/j.jsat.2010.07.004

Guerrero, E. G. (2012). Organizational characteristics that foster early adoption of cultural and

linguistic competence in outpatient substance abuse treatment in the United States.

Evaluation and Program Planning, *35*(1), 9-15. doi:10.1016/j.evalprogplan.2011.06.001

Guerrero, E. G. (in press). Managerial challenges and strategies to implementing organizational

change in substance abuse treatment for Latinos. *Administration in Social Work*.

Guerrero, E. G., & Andrews, C. M. (2011). Cultural competence in outpatient substance abuse

treatment: Measurement and relationship to wait time and retention. *Drug and Alcohol*

Dependence, *119*(1-2), e13-e22. doi:10.1016/j.drugalcdep.2011.05.020

Harper, M., Hernandez, M., Nesman, T., Mowery, D., Worthington, J., & Isaacs, M. (2009). *Organizational cultural competence: A review of assessment protocols* (FMHI Publication No. 240-2). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

Howard, D.L. (2003). Culturally competent treatment of African American clients among a national sample of outpatient substance abuse treatment units. *Journal of Substance Abuse Treatment 24*, 89-102.

Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1-55. doi:10.1080/10705519909540118

Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: Guilford Press.

Lehman, W. E. K., Greener, J. M., & Simpson, D. D. (2002). Assessing organizational readiness for change. *Journal of Substance Abuse Treatment*, *22*(4), 197-209. doi:10.1016/S0740-5472(02)00233-7

Lewin Group. (2002). *Indicators of cultural competence in health care delivery organizations: An organizational cultural competence assessment profile*. Retrieved from Health Resources and Services Administration website: http://www.hrsa.gov/culturalcompetence/healthdlvr.pdf

McLellan, A. T., Carise, D., & Kleber, H. D. (2003). Can the national addiction treatment infrastructure support the public's demand for quality care? *Journal of Substance Abuse Treatment*, *25*(2), 117-121. doi:10.1016/S0740-5472(03)00156-9

Muthén, L. K., & Muthén, B. O. (2010). *Mplus user's guide* (6th ed.). Los Angeles, CA: Muthén
     & Muthén.

National Center of Cultural Competence (2007). *Definition of Objectives for Organizational*
     Cultural Competence and Service Efficacy. Georgetown University – National Center of
     Cultural Competence. Accessed on May 27, 2006. http://gucchd.georgetown.edu/nccc.

Ohio Department of Mental Health. (2003). *The consolidated culturalogical assessment tool (C-*
     CAT). Columbus, OH: Ohio Department of Mental Health.

Prince Inniss, J.P., Nessman, T., Mowery, D., Callejas, L.M., Hernandez, M. (2009). *Serving*
     Everyone at the Table: Strategies for Enhancing the Availability of Culturally Competent
     Mental Health Service (Making Children's Mental Health Services Successful Series).
     University of South Florida, College of Behavioral and Community Sciences, Louis de la
     Parte Florida Mental Health Institute, Department of Child and Family Studies, Research
     and Training Center for Children's Mental Health. Tampa, FL.

Shortell, S. M., Rundall, T. G., & Hsu, J. (2007). Improving patient care by linking evidence-
     based medicine and evidence-based management. *Journal of the American Medical*
     Association, *298*(6), 673-676. doi:10.1001/jama.298.6.673

Simpson, D. D., & Flynn, P. M. (2007). Moving innovations into treatment: A stage-based
     approach to program change. *Journal of Substance Abuse Treatment*, *33(2)*, 111-120.
     doi:10.1016/j.jsat.2006.12.023

Simpson, D. D., Joe, G. W., & Rowan-Szal, G. A. (2007). Linking the elements of change:
     Program and client responses to innovation. *Journal of Substance Abuse Treatment*, *33*(2),
     201-209. doi:10.1016/j.jsat.2006.12.022

Smith, L.S. (1998). Concept analysis: cultural competence. *Journal of Cultural Diversity 5*, 4-10.

Weelch-Maldonado, R. (2002). *Organizational support standards for culturally and*

linguistically appropriate services (CLAS): Core concepts, content knowledge, and core

skills. Washington, DC: U.S. Department of Health and Human Services, Office of

Minority Health.